Monthly Energy Review

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Section 1. Energy Overview

Energy production during March 1997 totaled 5.9 quadrillion Btu, a 0.6-percent decrease from the level of production during March 1996. Natural gas production increased 1.9 percent, production of crude oil and natural gas plant liquids increased 0.2 percent, and coal production decreased 1.4 percent. All other forms of energy production combined were down 4.4 percent from the level of production during March 1996.

Energy consumption during March 1997 totaled 7.7 quadrillion Btu, 1.7 percent below the level of consumption during March 1996. Consumption of natural gas was down 1.8 percent, consumption of petroleum products decreased 1.7 percent, and consumption of coal rose 0.1 percent. Consumption of all other forms of energy combined decreased 4.5 percent from the level 1 year earlier.

Net imports of energy during March 1997 totaled 1.7 quadrillion Btu, 10.8 percent above the level of net imports 1 year earlier. Net imports of petroleum increased 8.3 percent and net imports of natural gas were up 21.5 percent. Net exports of coal fell 0.8 percent from the level in March 1996.

Table 1.1 Energy Summary for March 1997

(Quadrillion Btu)

	March			Cumulative January Through March				
	1997	1996	Percent Change[a]	1997	1997 Daily Rate	1996	1996 Daily Rate	Percent Change[a]
Production	**5.862**	**5.896**	**-0.6**	**17.194**	**0.191**	**17.226**	**0.189**	**0.9**
Coal	1.903	1.931	-1.4	5.616	.062	5.490	.060	3.4
Natural Gas (Dry)	1.680	1.648	1.9	4.863	.054	4.873	.054	.9
Crude Oil[b] and Natural Gas Plant Liquids	1.387	1.383	.2	4.006	.045	4.037	.044	.3
Other[c]	.892	.933	-4.4	2.708	.030	2.825	.031	-3.1
Consumption	**7.735**	**7.868**	**-1.7**	**23.840**	**.265**	**24.156**	**.265**	**-.2**
Coal	1.638	1.635	.1	5.131	.057	5.069	.056	2.4
Natural Gas[d]	2.210	2.251	-1.8	7.130	.079	7.272	.080	-.9
Petroleum Products[e]	2.965	3.016	-1.7	8.787	.098	8.909	.098	-.3
Other[f]	.922	.966	-4.5	2.790	.031	2.906	.032	-2.9
Net Imports	**1.714**	**1.547**	**10.8**	**4.892**	**.054**	**4.448**	**.049**	**11.2**
Coal[g]	-.167	-.168	-.8	-.491	-.005	-.494	-.005	.4
Natural Gas	.259	.213	21.5	.767	.009	.675	.007	14.9
Petroleum[h]	1.592	1.470	8.3	4.533	.050	4.186	.046	9.5
Other[i]	.030	.032	-7.0	.082	.001	.080	.001	3.2

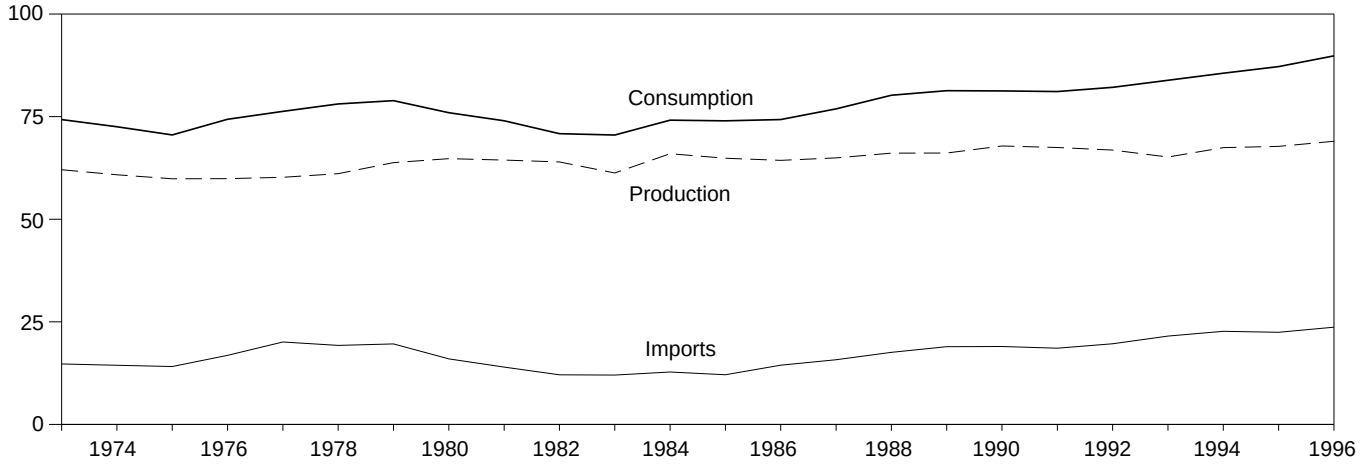
[a] Based on daily rates prior to rounding.
[b] Includes lease condensate.
[c] "Other" is hydroelectric and nuclear electric power, and electricity generated for distribution from wood, waste, geothermal, wind, photovoltaic, and solar thermal energy.
[d] Includes supplemental gaseous fuels.
[e] Products obtained from the processing of crude oil (including lease condensate), natural gas, and other hydrocarbon compounds.
[f] "Other" is hydroelectric and nuclear electric power; electricity generated for distribution from wood, waste, geothermal, wind, photovoltaic, and solar thermal energy; and net imports of electricity and coal coke.
[g] Minus sign indicates exports are greater than imports.
[h] Crude oil, lease condensate, petroleum products, pentanes plus, unfinished oils, gasoline blending components, and imports of crude oil for the Strategic Petroleum Reserve.
[i] "Other" is net imports of electricity and coal coke.
E=Estimate.
Notes: • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.
Sources: Tables 1.3, 1.4, and 1.5.

Please Read: Due to a lack of consistent monthly historical data, some renewable energy sources are not included in production and consumption. In 1995, for example, 3.4 quadrillion Btu of renewable energy used by electric utilities to generate electricity for distribution is included, but an estimated 3.3 quadrillion Btu used by residential, commercial, and industrial consumers is not. See Note 12 at the end of Section 2 for details.

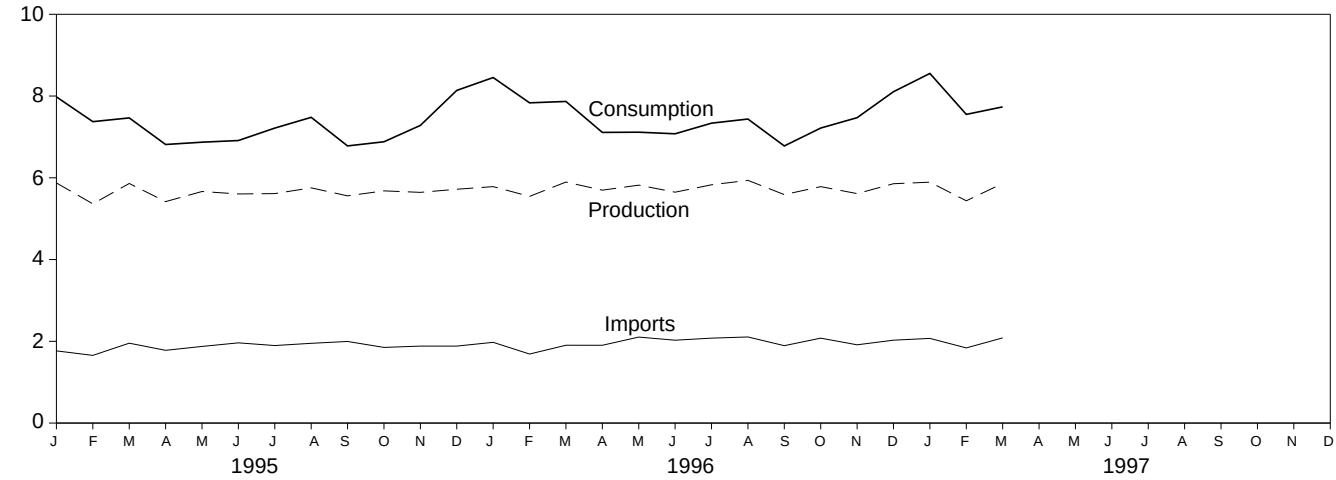
Figure 1.1 Energy Overview

(Quadrillion Btu)

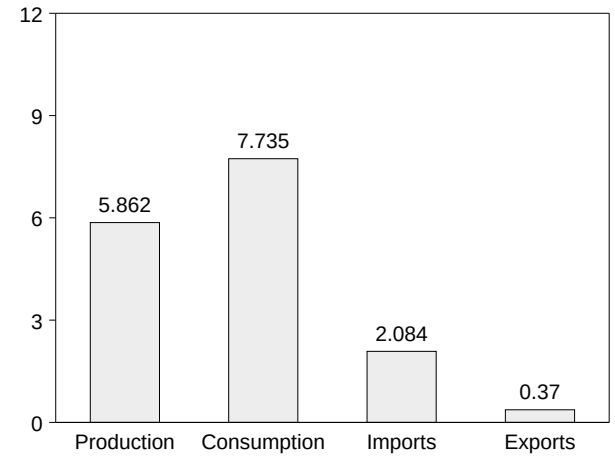
Consumption, Production, and Imports, 1973-1996



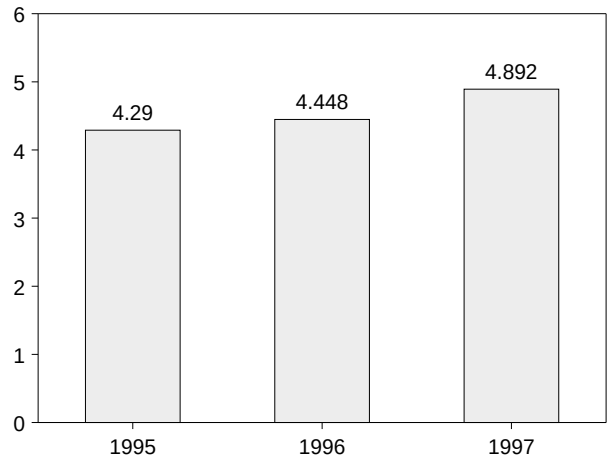
Consumption, Production, and Imports, Monthly



Overview, March 1997



Net Imports, January-March



Note: Because vertical scales differ, graphs should not be compared.
Source: Table 1.2.

Table 1.2 Energy Overview

(Quadrillion Btu)

	Production	Consumption[a]	Imports	Exports	Net Imports
1973 Total	**62.060**	**74.282**	**14.731**	**2.051**	**12.680**
1974 Total	**60.835**	**72.543**	**14.413**	**2.223**	**12.190**
1975 Total	**59.860**	**70.546**	**14.111**	**2.359**	**11.752**
1976 Total	**59.892**	**74.362**	**16.837**	**2.188**	**14.648**
1977 Total	**60.219**	**76.288**	**20.090**	**2.071**	**18.019**
1978 Total	**61.103**	**78.089**	**19.254**	**1.931**	**17.323**
1979 Total	**63.801**	**78.898**	**19.616**	**2.870**	**16.746**
1980 Total	**64.761**	**75.955**	**15.971**	**3.723**	**12.247**
1981 Total	**64.421**	**73.990**	**13.975**	**4.329**	**9.646**
1982 Total	**63.962**	**70.848**	**12.092**	**4.633**	**7.460**
1983 Total	**61.279**	**70.524**	**12.027**	**3.717**	**8.310**
1984 Total	**65.962**	**74.144**	**12.767**	**3.804**	**8.963**
1985 Total	**64.871**	**73.981**	**12.103**	**4.231**	**7.872**
1986 Total	**64.350**	**74.297**	**14.438**	**4.055**	**10.382**
1987 Total	**64.952**	**76.894**	**15.764**	**3.853**	**11.911**
1988 Total	**66.105**	**80.218**	**17.564**	**4.415**	**13.149**
1989 Total	**66.129**	**81.325**	**18.947**	**4.765**	**14.181**
1990 Total	**67.853**	**81.265**	**18.987**	**4.910**	**14.077**
1991 Total	**67.484**	**81.116**	**18.577**	**5.220**	**13.357**
1992 Total	**66.853**	**82.144**	**19.650**	**5.017**	**14.633**
1993 Total	**65.163**	**83.863**	**21.530**	**4.350**	**17.180**
1994 Total	**67.448**	**85.587**	**22.695**	**4.125**	**18.570**
1995 January	5.874	7.979	1.766	.360	1.406
February	5.363	7.374	1.656	.346	1.311
March	5.861	7.465	1.954	.380	1.574
April	5.418	6.815	1.779	.380	1.399
May	5.665	6.871	1.875	.390	1.485
June	5.605	6.912	1.962	.394	1.568
July	5.614	7.216	1.897	.356	1.542
August	5.754	7.479	1.951	.362	1.589
September	5.558	6.780	1.996	.366	1.631
October	5.681	6.882	1.851	.396	1.455
November	5.644	7.282	1.883	.389	1.494
December	5.720	8.138	1.883	.453	1.431
Total	**67.759**	**87.193**	**22.454**	**4.571**	**17.884**
1996 January	5.784	R 8.453	1.975	.389	1.586
February	5.546	R 7.834	1.689	.374	1.315
March	5.896	R 7.868	1.904	.357	1.547
April	5.698	R 7.110	1.903	.378	1.525
May	5.820	R 7.116	2.104	.378	1.727
June	R 5.648	R 7.077	2.027	.386	1.641
July	5.829	R 7.337	2.078	.394	1.683
August	5.937	R 7.438	2.107	.379	1.728
September	5.589	R 6.779	1.893	.423	1.470
October	5.784	7.217	2.077	.423	1.654
November	R 5.613	R 7.471	1.915	.410	1.505
December	R 5.855	R 8.106	2.028	.397	1.631
Total	R **68.999**	R **89.808**	**23.699**	**4.687**	**19.012**
1997 January	R 5.893	R 8.553	R 2.071	R .397	R 1.675
February	5.438	R 7.552	R 1.839	R .337	R 1.503
March	5.862	7.735	2.084	.370	1.714
3-Month Total	**17.194**	**23.840**	**5.995**	**1.103**	**4.892**
1996 3-Month Total	**17.226**	**24.156**	**5.568**	**1.121**	**4.448**
1995 3-Month Total	**17.099**	**22.818**	**5.376**	**1.086**	**4.290**

[a] 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: • For definitions, see Notes 1 through 4 at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

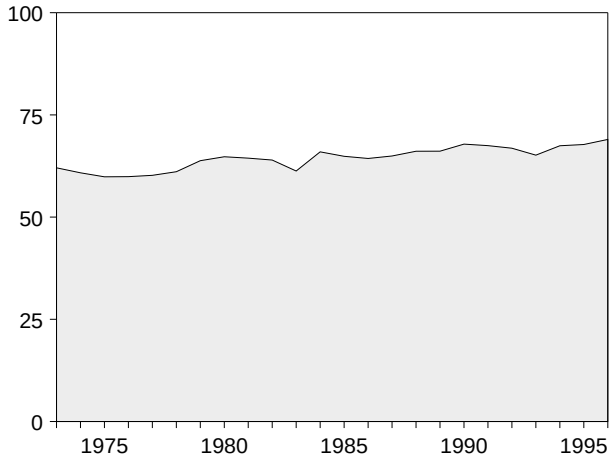
Sources: • **Production:** Table 1.3. • **Consumption:** Table 1.4. • **Imports and Exports:** Tables 3.1b, 4.2, 6.1, A2-A8, and Section 2, "Energy Consumption Notes and Sources," Notes 8 and 9. • **Net Imports:** Table 1.5.

Please Read: Due to a lack of consistent monthly historical data, some renewable energy sources are not included in production and consumption. In 1995, for example, 3.4 quadrillion Btu of renewable energy used by electric utilities to generate electricity for distribution is included, but an estimated 3.3 quadrillion Btu used by residential, commercial, and industrial consumers is not. See Note 12 at the end of Section 2 for details.

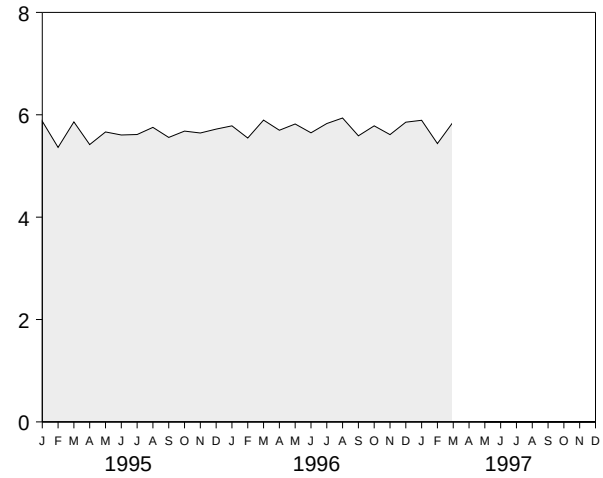
Figure 1.2 Energy Production

(Quadrillion Btu)

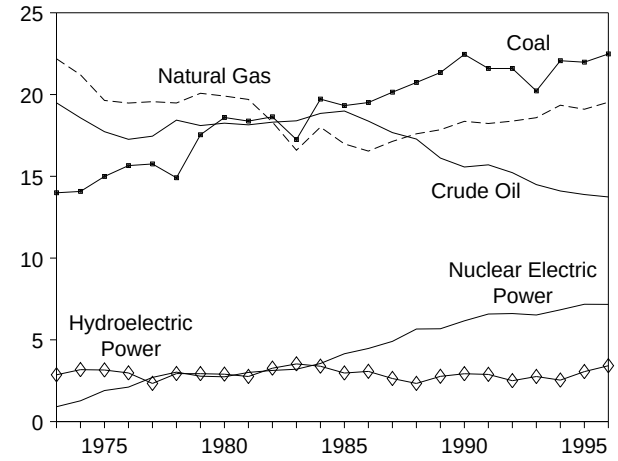
Total, 1973-1996



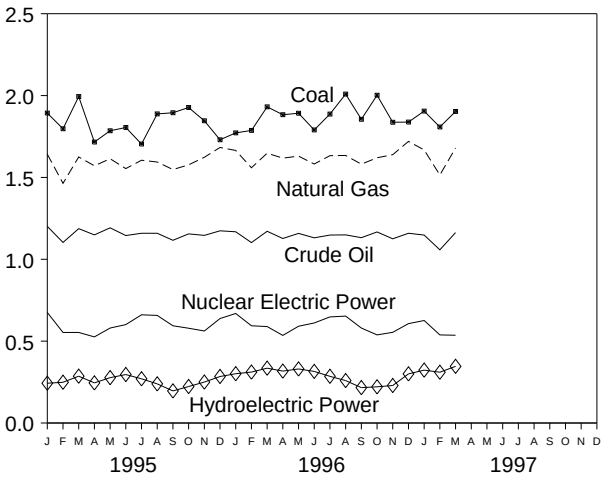
Total, Monthly



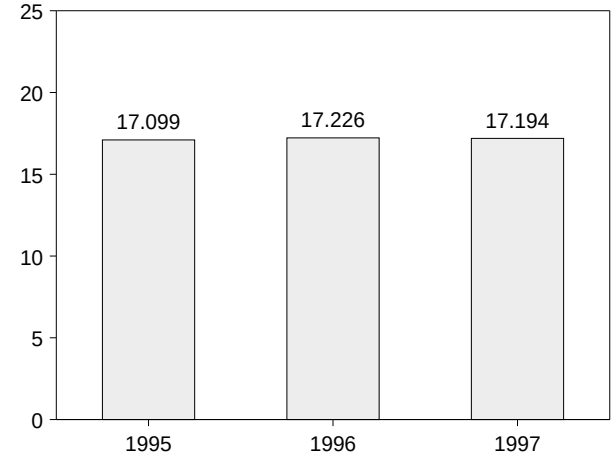
By Major Sources, 1973-1996



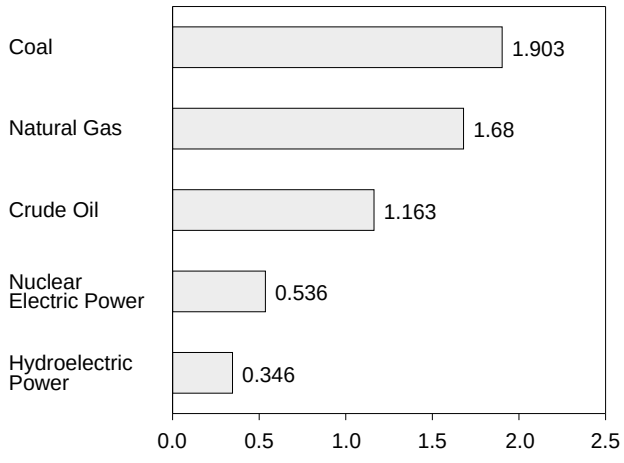
By Major Sources, Monthly



Total, January-March



By Major Sources, March 1997



Note: Because vertical scales differ, graphs should not be compared.
Source: Table 1.3.

Table 1.3 Energy Production by Source

(Quadrillion Btu)

	Coal	Natural Gas (Dry)	Crude Oil[a]	Natural Gas Plant Liquids	Nuclear Electric Power	Hydro-electric Power[b]	Geothermal Energy	Other[c]	Total
1973 Total	**13.993**	**22.187**	**19.493**	**2.569**	**0.910**	**2.861**	**0.043**	**0.003**	**62.060**
1974 Total	**14.074**	**21.210**	**18.575**	**2.471**	**1.272**	**3.177**	**.053**	**.003**	**60.835**
1975 Total	**14.990**	**19.640**	**17.729**	**2.374**	**1.900**	**3.155**	**.070**	**.002**	**59.860**
1976 Total	**15.654**	**19.480**	**17.262**	**2.327**	**2.111**	**2.976**	**.078**	**.003**	**59.892**
1977 Total	**15.755**	**19.565**	**17.454**	**2.327**	**2.702**	**2.333**	**.077**	**.005**	**60.219**
1978 Total	**14.910**	**19.485**	**18.434**	**2.245**	**3.024**	**2.937**	**.064**	**.003**	**61.103**
1979 Total	**17.539**	**20.076**	**18.104**	**2.286**	**2.776**	**2.931**	**.084**	**.005**	**63.801**
1980 Total	**18.597**	**19.908**	**18.249**	**2.254**	**2.739**	**2.900**	**.110**	**.005**	**64.761**
1981 Total	**18.376**	**19.699**	**18.146**	**2.307**	**3.008**	**2.758**	**.123**	**.004**	**64.421**
1982 Total	**18.639**	**18.319**	**18.309**	**2.191**	**3.131**	**3.266**	**.105**	**.003**	**63.962**
1983 Total	**17.246**	**16.593**	**18.392**	**2.184**	**3.203**	**3.527**	**.129**	**.004**	**61.279**
1984 Total	**19.719**	**18.008**	**18.848**	**2.274**	**3.553**	**3.386**	**.165**	**.009**	**65.962**
1985 Total	**19.325**	**16.980**	**18.992**	**2.241**	**4.149**	**2.970**	**.198**	**.015**	**64.871**
1986 Total	**19.510**	**16.541**	**18.376**	**2.149**	**4.471**	**3.071**	**.219**	**.012**	**64.350**
1987 Total	**20.142**	**17.136**	**17.675**	**2.215**	**4.906**	**2.635**	**.229**	**.016**	**64.952**
1988 Total	**20.737**	**17.599**	**17.279**	**2.260**	**5.661**	**2.334**	**.217**	**.017**	**66.105**
1989 Total	**21.345**	**17.847**	**16.117**	**2.158**	**5.677**	**2.767**	**.197**	**.020**	**66.129**
1990 Total	**22.456**	**18.362**	**15.571**	**2.175**	**6.161**	**2.926**	**.181**	**.021**	**67.853**
1991 Total	**21.594**	**18.229**	**15.701**	**2.306**	**6.579**	**2.885**	**.170**	**.021**	**67.484**
1992 Total	**21.593**	**18.375**	**15.223**	**2.363**	**6.607**	**2.501**	**.169**	**.022**	**66.853**
1993 Total	**20.221**	**18.584**	**14.494**	**2.408**	**6.519**	**2.757**	**.158**	**.021**	**65.163**
1994 Total	**22.068**	**19.348**	**14.103**	**2.391**	**6.837**	**2.536**	**.145**	**.020**	**67.448**
1995 January	1.893	1.642	1.201	.210	.675	.243	.009	.001	5.874
February	1.797	1.464	1.103	.189	.553	.249	.006	.001	5.363
March	1.994	1.625	1.187	.209	.553	.286	.007	.001	5.861
April	1.716	1.571	1.149	.204	.526	.245	.006	.002	5.418
May	1.785	1.614	1.192	.211	.580	.277	.005	.001	5.665
June	1.805	1.554	1.145	.198	.601	.296	.006	.001	5.605
July	1.704	1.605	1.159	.206	.661	.270	.006	.002	5.614
August	1.888	1.594	1.159	.204	.657	.239	.011	.002	5.754
September	1.895	1.548	1.116	.200	.594	.196	.008	.002	5.558
October	1.927	1.577	1.155	.207	.579	.223	.013	.002	5.681
November	1.846	1.623	1.146	.205	.562	.250	.012	.002	5.644
December	1.730	1.683	1.174	.199	.638	.284	.011	.001	5.720
Total	**21.978**	**19.101**	**13.887**	**2.442**	**7.177**	**3.057**	**.099**	**.017**	**67.759**
1996 January	1.772	1.665	1.168	.201	.669	.301	.007	.002	5.784
February	1.787	1.559	1.102	.183	.594	.311	.008	.001	5.546
March	1.931	1.648	1.171	.212	.589	.335	.007	.002	5.896
April	1.883	1.618	1.127	.208	.535	.317	.008	.001	5.698
May	1.892	1.630	1.158	.212	.591	.330	.005	.001	5.820
June	1.790	1.582	1.131	.208	.611	.315	.008	.002	R 5.648
July	1.887	1.633	1.148	.215	.648	.285	.012	.002	5.829
August	2.009	1.634	1.149	.219	.653	.259	.012	.002	5.937
September	1.855	1.581	1.132	.213	.580	.216	.010	.002	5.589
October	2.002	1.620	1.167	.223	.538	.221	.011	.002	5.784
November	1.837	RE 1.639	1.125	.217	.554	.229	.011	.002	R 5.613
December	1.838	RE 1.720	1.159	.220	.607	.300	.010	.002	R 5.855
Total	**22.484**	RE **19.531**	**13.737**	**2.531**	**7.168**	**3.418**	**.110**	**.020**	R **68.999**
1997 January	1.905	RE 1.668	1.148	.212	.626	.323	.009	.002	R 5.893
February	1.808	E 1.515	1.058	.201	.538	.310	.006	.002	5.438
March	1.903	E 1.680	1.163	.223	.536	.346	.009	.002	5.862
3-Month Total	**5.616**	E **4.863**	**3.369**	**.637**	**1.700**	**.980**	**.024**	**.005**	**17.194**
1996 3-Month Total	**5.490**	**4.873**	**3.441**	**.596**	**1.852**	**.947**	**.022**	**.005**	**17.226**
1995 3-Month Total	**5.683**	**4.731**	**3.492**	**.609**	**1.781**	**.778**	**.022**	**.004**	**17.099**

[a] Includes lease condensate.
[b] Electric utility and industrial generation.
[c] "Other" production is electricity generated for distribution from wood, waste, wind, photovoltaic, and solar thermal energy.

R=Revised data. E=Estimate.

Notes: • See Note 1 at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

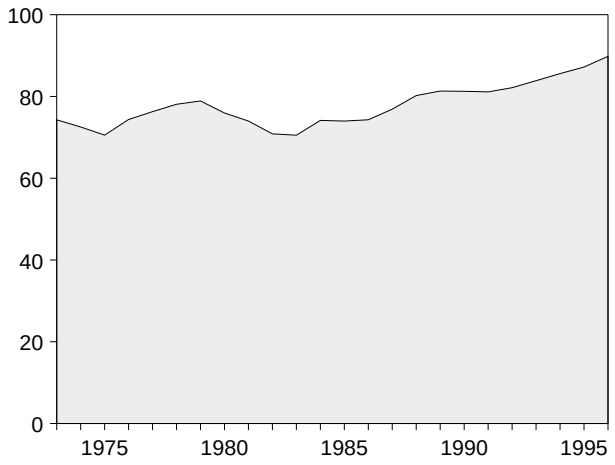
Sources: • **Coal:** Tables 6.1 and A5-A7. • **Natural Gas (Dry):** Tables 4.1 and A4. • **Crude Oil and Natural Gas Plant Liquids:** Tables 3.1a and A2. • **Nuclear Electric Power:** Tables 7.1 and A8. • **Hydroelectric Power:** Table 7.1; Section 2, "Energy Consumption Notes and Sources," Note 8; and Table A8. • **Geothermal Energy and Other:** Section 2, "Energy Consumption Notes and Sources," Note 7, and Table A8.

Please Read: Due to a lack of consistent monthly historical data, some renewable energy sources are not included in total production. In 1995, for example, 3.4 quadrillion Btu of renewable energy used by electric utilities to generate electricity for distribution is included, but an estimated 3.3 quadrillion Btu used by residential, commercial, and industrial consumers is not. See Note 12 at the end of Section 2 for details.

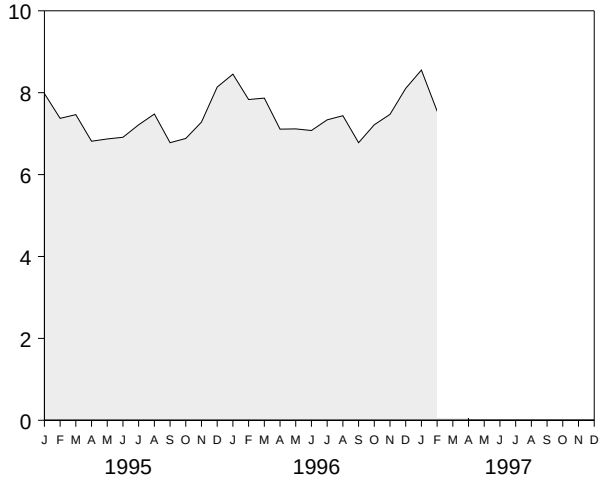
Figure 1.3 Energy Consumption

(Quadrillion Btu)

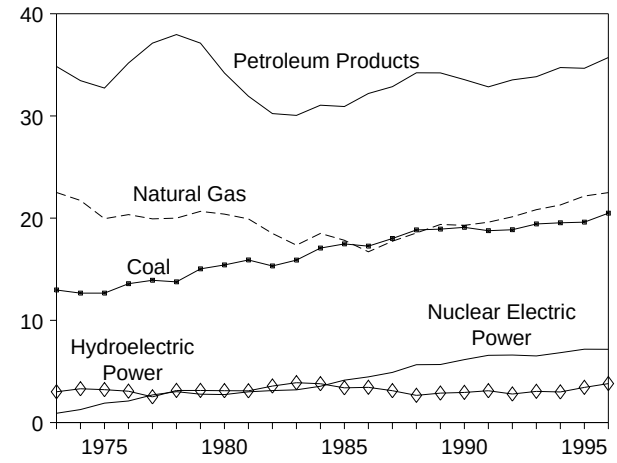
Total, 1973-1996



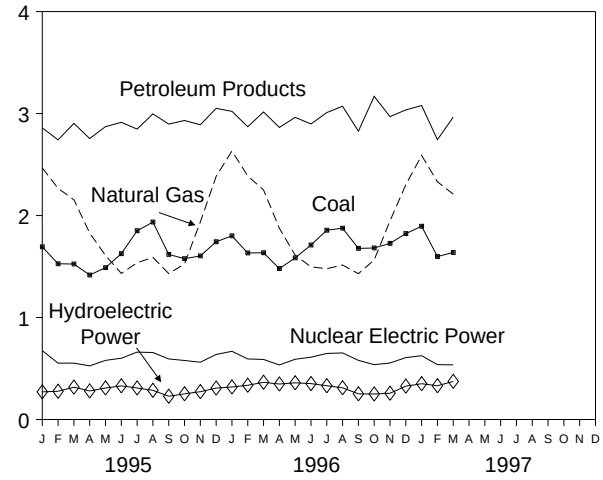
Total, Monthly



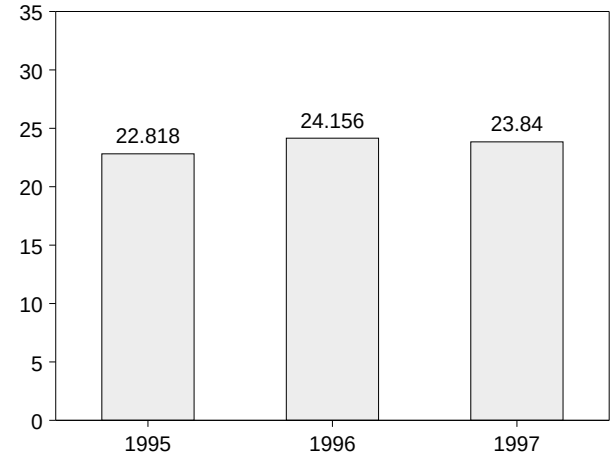
By Major Sources, 1973-1996



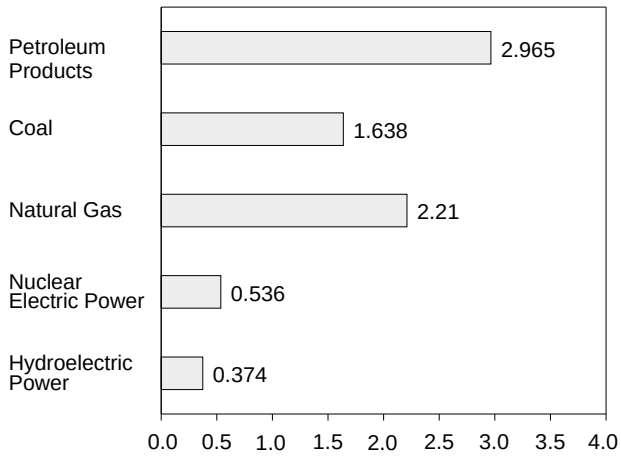
By Major Sources, Monthly



Total, January-March



By Major Sources, March 1997



Note: Because vertical scales differ, graphs should not be compared.
Source: Table 1.4.

Table 1.4 Energy Consumption by Source

(Quadrillion Btu)

	Coal	Natural Gas[a]	Petroleum Products[b]	Nuclear Electric Power	Hydro-electric Power[c]	Geothermal Energy	Other[d]	Total
1973 Total	**12.971**	**22.512**	**34.840**	**0.910**	**3.010**	**0.043**	**-0.004**	**74.282**
1974 Total	**12.663**	**21.732**	**33.455**	**1.272**	**3.309**	**.053**	**.059**	**72.543**
1975 Total	**12.663**	**19.948**	**32.731**	**1.900**	**3.219**	**.070**	**.016**	**70.546**
1976 Total	**13.584**	**20.345**	**35.175**	**2.111**	**3.066**	**.078**	**.003**	**74.362**
1977 Total	**13.922**	**19.931**	**37.122**	**2.702**	**2.515**	**.077**	**.020**	**76.288**
1978 Total	**13.765**	**20.000**	**37.965**	**3.024**	**3.141**	**.064**	**.128**	**78.089**
1979 Total	**15.039**	**20.666**	**37.123**	**2.776**	**3.141**	**.084**	**.068**	**78.898**
1980 Total	**15.423**	**20.394**	**34.202**	**2.739**	**3.118**	**.110**	**-.031**	**75.955**
1981 Total	**15.907**	**19.928**	**31.931**	**3.008**	**3.105**	**.123**	**-.012**	**73.990**
1982 Total	**15.322**	**18.505**	**30.231**	**3.131**	**3.572**	**.105**	**-.018**	**70.848**
1983 Total	**15.894**	**17.357**	**30.054**	**3.203**	**3.899**	**.129**	**-.012**	**70.524**
1984 Total	**17.071**	**18.507**	**31.051**	**3.553**	**3.800**	**.165**	**-.002**	**74.144**
1985 Total	**17.478**	**17.834**	**30.922**	**4.149**	**3.398**	**.198**	**.001**	**73.981**
1986 Total	**17.261**	**16.708**	**32.196**	**4.471**	**3.446**	**.219**	**-.004**	**74.297**
1987 Total	**18.008**	**17.744**	**32.865**	**4.906**	**3.117**	**.229**	**.024**	**76.894**
1988 Total	**18.846**	**18.552**	**34.222**	**5.661**	**2.662**	**.217**	**.057**	**80.218**
1989 Total	**18.925**	**19.384**	**34.211**	**5.677**	**2.881**	**.197**	**.051**	**81.325**
1990 Total	**19.101**	**19.296**	**33.553**	**6.161**	**2.946**	**.181**	**.026**	**81.265**
1991 Total	**18.770**	**19.606**	**32.845**	**6.579**	**3.115**	**.170**	**.030**	**81.116**
1992 Total	**18.868**	**20.131**	**33.527**	**6.607**	**2.793**	**.169**	**.049**	**82.144**
1993 Total	**19.430**	**20.827**	**33.841**	**6.519**	**3.050**	**.158**	**.038**	**83.863**
1994 Total	**19.544**	**21.288**	**34.735**	**6.837**	**2.994**	**.145**	**.044**	**85.587**
1995 January	1.693	2.467	2.860	.675	.271	.009	.005	7.979
February	1.527	2.267	2.742	.553	.277	.006	.003	7.374
March	1.525	2.155	2.904	.553	.317	.007	.004	7.465
April	1.417	1.828	2.755	.526	.280	.006	.003	6.815
May	1.489	1.609	2.872	.580	.309	.005	.006	6.871
June	1.626	1.433	2.914	.601	.330	.006	.002	6.912
July	1.851	1.537	2.848	.661	.309	.006	.003	7.216
August	1.936	1.590	2.997	.657	.286	.011	.003	7.479
September	1.619	1.431	2.897	.594	.228	.008	.004	6.780
October	1.577	1.526	2.932	.579	.252	.013	.004	6.882
November	1.604	1.937	2.890	.562	.273	.012	.004	7.282
December	1.743	2.384	3.051	.638	.308	.011	.003	8.138
Total	**19.608**	**22.163**	**34.663**	**7.177**	**3.439**	**.099**	**.044**	**87.193**
1996 January	R 1.801	R 2.633	3.022	.669	.319	.007	.003	R 8.453
February	R 1.633	R 2.388	2.871	.594	.336	.008	.004	R 7.834
March	R 1.635	R 2.251	3.016	.589	.365	.007	.005	R 7.868
April	R 1.480	R 1.875	2.864	.535	.348	.008	.000	R 7.110
May	R 1.585	R 1.612	2.963	.591	.360	.005	.001	R 7.116
June	R 1.711	1.497	2.898	.611	.352	.008	-.001	R 7.077
July	1.856	R 1.479	3.010	.648	.331	.012	.002	R 7.337
August	1.876	R 1.515	3.072	.653	.311	.012	-.001	R 7.438
September	1.678	R 1.430	2.827	.580	.252	.010	.002	R 6.779
October	1.682	R 1.565	3.169	.538	.250	.011	.002	7.217
November	1.727	R 1.949	2.970	.554	.258	.011	.002	R 7.471
December	1.823	RE 2.302	3.036	.607	.327	.010	.001	R 8.106
Total	R **20.487**	RE **22.497**	**35.717**	**7.168**	**3.810**	**.110**	**.020**	R **89.808**
1997 January	E 1.895	R 2.589	3.079	.626	.351	.009	.003	R 8.553
February	E 1.598	R 2.331	2.744	.538	.331	.006	.003	R 7.552
March	E 1.638	E 2.210	2.965	.536	.374	.009	.003	7.735
3-Month Total	E **5.131**	E **7.130**	**8.787**	**1.700**	**1.057**	**.024**	**.010**	**23.840**
1996 3-Month Total	**5.069**	**7.272**	**8.909**	**1.852**	**1.020**	**.022**	**.012**	**24.156**
1995 3-Month Total	**4.744**	**6.889**	**8.506**	**1.781**	**.864**	**.022**	**.012**	**22.818**

[a] Includes supplemental gaseous fuels.

[b] Products obtained from the processing of crude oil (including lease condensate), natural gas, and other hydrocarbon compounds.

[c] Electric utility and industrial generation and net imports of electricity.

[d] "Other" consumption is net imports of coal coke and electricity generated for distribution from wood, waste, wind, photovoltaic, and solar thermal energy.

R=Revised data. E=Estimate.

Notes: • See Note 2 at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

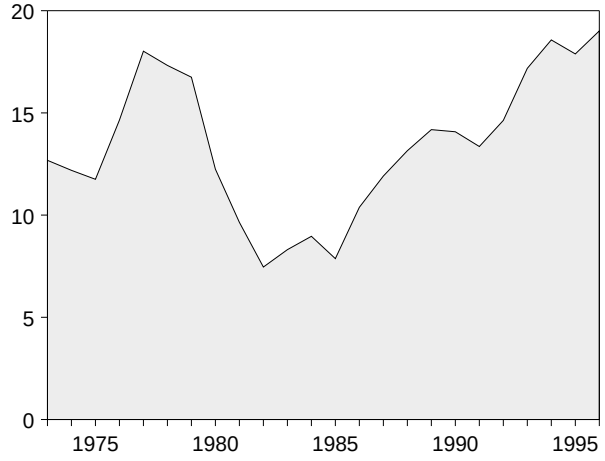
Sources: • **Coal:** Tables 6.1 and A5-A7. • **Natural Gas:** Tables 4.2 and A4. • **Petroleum:** Tables 3.1a and A3. • **Nuclear Electric Power:** Tables 7.1 and A8. • **Hydroelectric Power:** Table 7.1; Section 2, "Energy Consumption Notes and Sources," Note 8; and Table A8. • **Geothermal Energy and Other:** Section 2, "Energy Consumption Notes and Sources," Note 7, and Table A8.

Please Read: Due to a lack of consistent monthly historical data, some renewable energy sources are not included in total consumption. In 1995, for example, 3.4 quadrillion Btu of renewable energy used by electric utilities to generate electricity for distribution is included, but an estimated 3.3 quadrillion Btu used by residential, commercial, and industrial consumers is not. See Note 12 at the end of Section 2 for details.

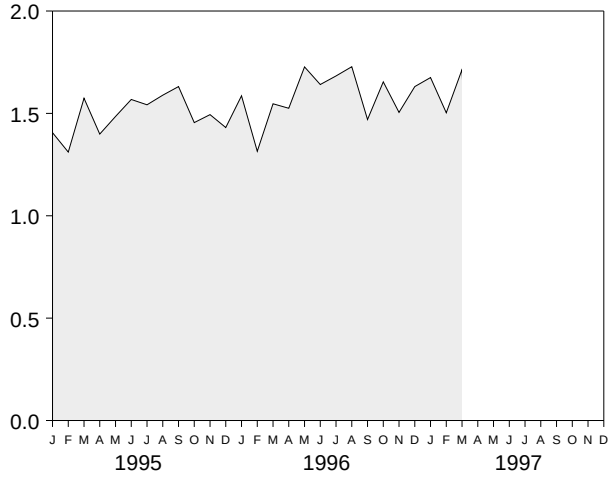
Figure 1.4 Energy Net Imports

(Quadrillion Btu, Except as Noted)

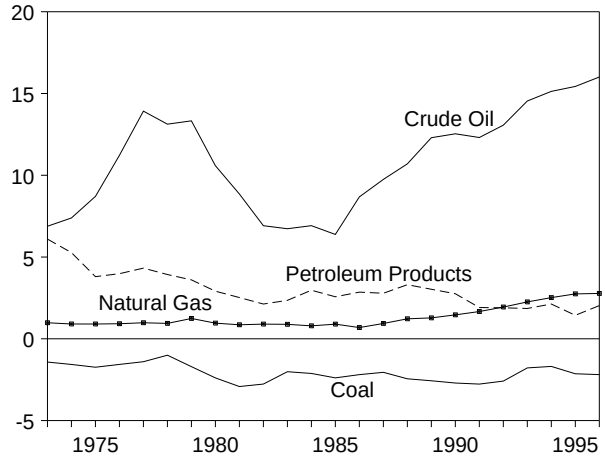
Total, 1973-1996



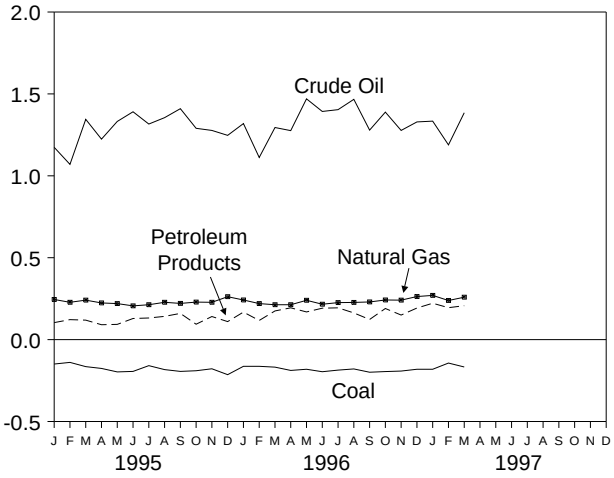
Total, Monthly



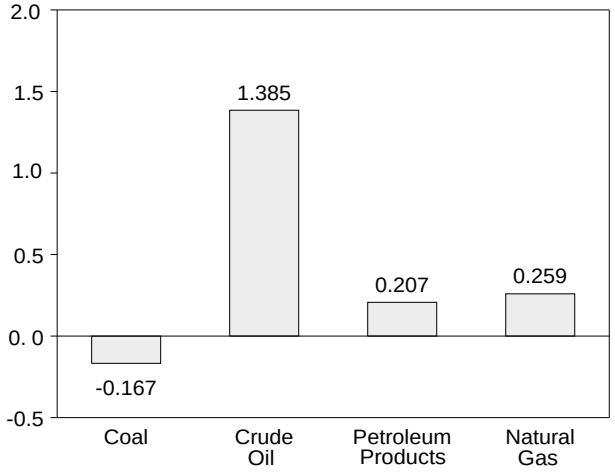
By Major Sources, 1973-1996



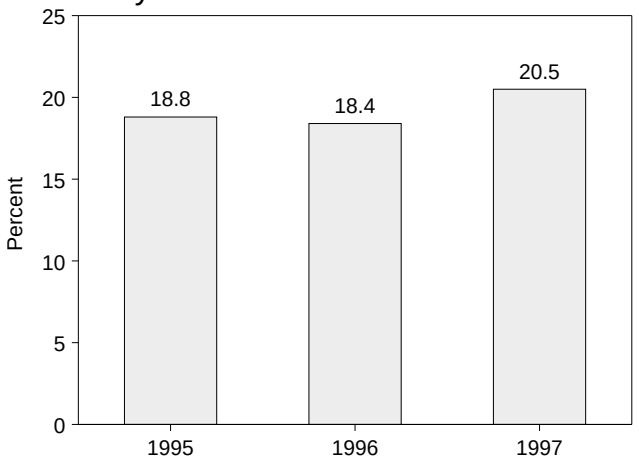
By Major Sources, Monthly



By Major Sources, March 1997



As Share of Consumption, January-March



Note: Because vertical scales differ, graphs should not be compared.
Sources: Tables 1.4 and 1.5.

Table 1.5 Energy Net Imports by Source

(Quadrillion Btu)

	Coal	Natural Gas	Crude Oil[a]	Petroleum Products[b]	Electricity[c]	Coal Coke	Total
1973 Total	**-1.422**	**0.981**	**6.883**	**6.097**	**0.148**	**-0.007**	**12.680**
1974 Total	**-1.568**	**.907**	**7.389**	**5.273**	**.133**	**.056**	**12.190**
1975 Total	**-1.738**	**.904**	**8.708**	**3.800**	**.064**	**.014**	**11.752**
1976 Total	**-1.567**	**.922**	**11.221**	**3.982**	**.089**	**(s)**	**14.648**
1977 Total	**-1.401**	**.981**	**13.921**	**4.321**	**.182**	**.015**	**18.019**
1978 Total	**-1.004**	**.941**	**13.125**	**3.932**	**.204**	**.125**	**17.323**
1979 Total	**-1.702**	**1.243**	**13.328**	**3.603**	**.211**	**.063**	**16.746**
1980 Total	**-2.391**	**.957**	**10.586**	**2.912**	**.217**	**-.035**	**12.247**
1981 Total	**-2.918**	**.857**	**8.854**	**2.522**	**.347**	**-.016**	**9.646**
1982 Total	**-2.768**	**.898**	**6.917**	**2.128**	**.306**	**-.022**	**7.460**
1983 Total	**-2.013**	**.885**	**6.731**	**2.351**	**.372**	**-.016**	**8.310**
1984 Total	**-2.119**	**.792**	**6.918**	**2.970**	**.414**	**-.011**	**8.963**
1985 Total	**-2.389**	**.896**	**6.381**	**2.570**	**.428**	**-.013**	**7.872**
1986 Total	**-2.193**	**.686**	**8.676**	**2.855**	**.375**	**-.017**	**10.382**
1987 Total	**-2.049**	**.937**	**9.748**	**2.784**	**.483**	**.009**	**11.911**
1988 Total	**-2.446**	**1.221**	**10.698**	**3.308**	**.328**	**.040**	**13.149**
1989 Total	**-2.566**	**1.278**	**12.296**	**3.029**	**.113**	**.030**	**14.181**
1990 Total	**-2.705**	**1.464**	**12.536**	**2.757**	**.020**	**.005**	**14.077**
1991 Total	**-2.769**	**1.666**	**12.308**	**1.912**	**.231**	**.009**	**13.357**
1992 Total	**-2.587**	**1.941**	**13.065**	**1.895**	**.292**	**.027**	**14.633**
1993 Total	**-1.780**	**2.255**	**14.542**	**1.854**	**.292**	**.017**	**17.180**
1994 Total	**-1.689**	**2.518**	**15.131**	**2.128**	**.459**	**.024**	**18.570**
1995 January	-.149	.245	1.174	.104	.028	.004	1.406
February	-.139	.228	1.070	.122	.027	.002	1.311
March	-.165	.241	1.345	.119	.031	.003	1.574
April	-.176	.224	1.224	.091	.035	.001	1.399
May	-.197	.220	1.332	.093	.032	.004	1.485
June	-.194	.206	1.391	.129	.034	.001	1.568
July	-.159	.213	1.316	.132	.039	.002	1.542
August	-.183	.228	1.355	.142	.046	.001	1.589
September	-.194	.221	1.410	.160	.032	.002	1.631
October	-.190	.229	1.290	.094	.029	.003	1.455
November	-.178	.228	1.277	.141	.024	.002	1.494
December	-.214	.262	1.247	.110	.024	.002	1.431
Total	**-2.138**	**2.745**	**15.432**	**1.437**	**.382**	**.026**	**17.884**
1996 January	-.163	.242	1.319	.168	E .018	.001	1.586
February	-.163	.220	1.112	.117	E .026	.003	1.315
March	-.168	.213	1.295	.175	E .029	.003	1.547
April	-.188	.213	1.276	.194	E .031	-.001	1.525
May	-.181	.240	1.470	.169	E .030	-.001	1.727
June	-.196	.216	1.393	.192	E .037	-.002	1.641
July	-.186	.226	1.404	.194	E .046	(s)	1.683
August	-.179	.227	1.467	.163	E .052	-.003	1.728
September	-.199	.230	1.279	.123	E .036	(s)	1.470
October	-.195	.242	1.389	.190	E .030	(s)	1.654
November	-.192	.241	1.277	.150	E .029	(s)	1.505
December	-.181	.263	1.329	.193	E .027	-.001	1.631
Total	**-2.190**	**2.774**	**16.008**	**2.029**	**E .392**	**(s)**	**19.012**
1997 January	-.181	RE .270	1.334	.222	E .028	.002	R 1.675
February	-.143	RE .239	1.189	.195	E .021	.002	R 1.503
March	-.167	E .259	1.385	.207	E .028	.002	1.714
3-Month Total	**-.491**	**E .767**	**3.908**	**.625**	**E .077**	**.005**	**4.892**
1996 3-Month Total	**-.494**	**.675**	**3.726**	**.460**	**E .073**	**.007**	**4.448**
1995 3-Month Total	**-.452**	**.713**	**3.590**	**.345**	**.086**	**.009**	**4.290**

[a] Crude oil, lease condensate, and imports of crude oil for the Strategic Petroleum Reserve.

[b] Petroleum products, unfinished oils, pentanes plus, and gasoline blending components.

[c] Assumed to be hydroelectricity and estimated at the average input heat rate for fossil-fuel steam-electric power plant generation, which has ranged from 10.2 thousand Btu to 10.5 thousand Btu per kilowatthour since 1973. Actual heat rates applied in converting kilowatthours to Btu are listed by year in Table A8.

R=Revised data. E=Estimate. (s)=Less than +0.5 trillion Btu and greater than -0.5 trillion Btu.

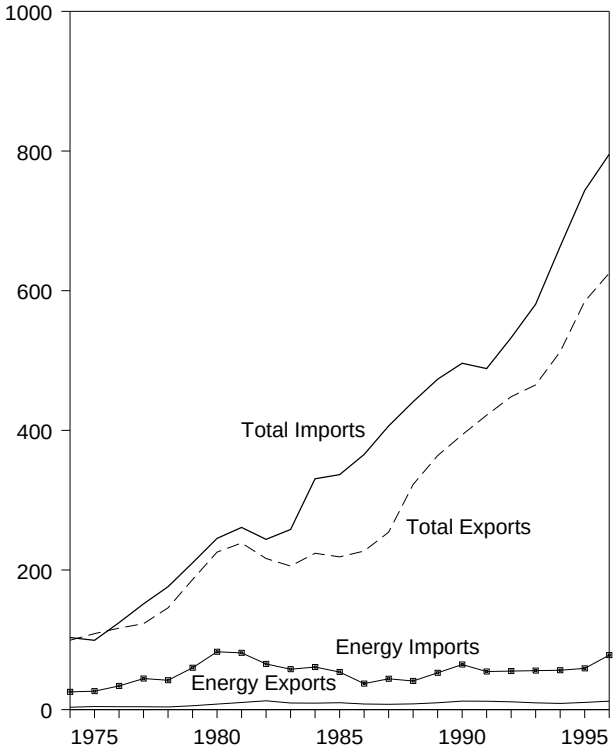
Notes: • See Notes 3 and 4 at end of section. • Net imports equal imports minus exports. Minus sign indicates exports are greater than imports. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Sources: • **Coal:** Tables 6.1 and A5-A7. • **Natural Gas:** Tables 4.2 and A4. • **Crude Oil and Petroleum Products:** Tables 3.1b and A2. • **Electricity:** Section 2, "Energy Consumption Notes and Sources," Note 8, and Table A8. • **Coal Coke:** Section 2, "Energy Consumption Notes and Sources," Note 9, and Table A7.

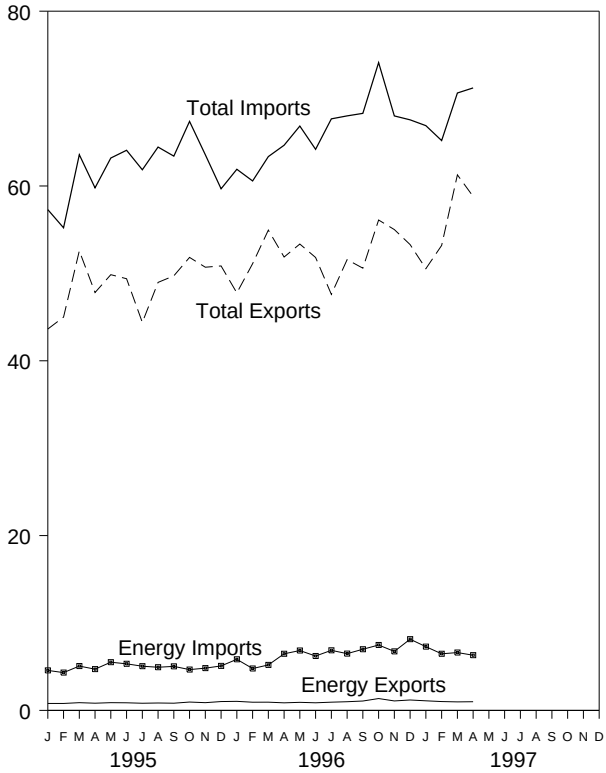
Figure 1.5 Merchandise Trade Value

(Billion Dollars)

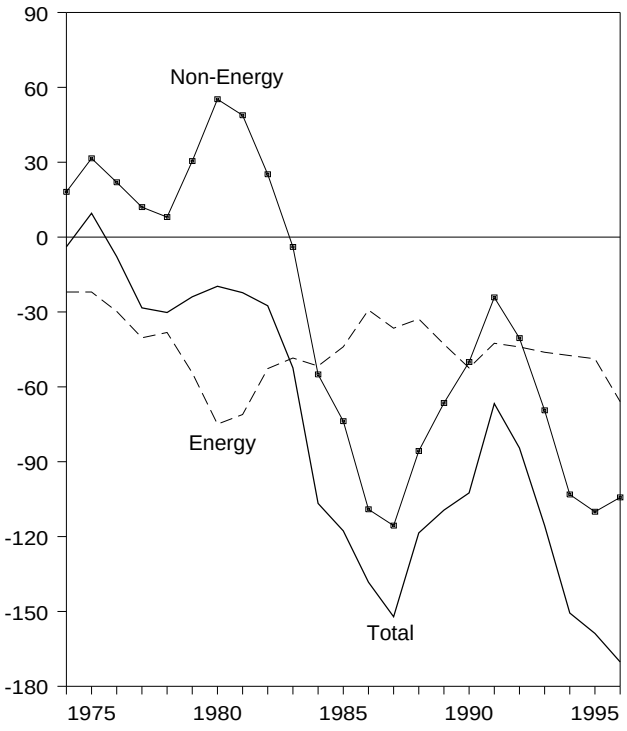
Imports and Exports, 1974-1996



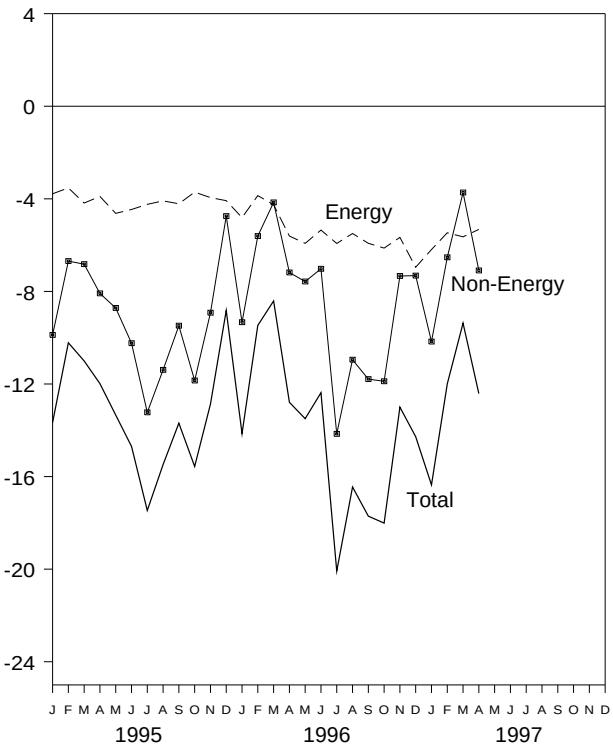
Imports and Exports, Monthly



Trade Balance, 1974-1996



Trade Balance, Monthly



Note: Because vertical scales differ, graphs should not be compared.
Source: Table 1.6.

Table 1.6 Merchandise Trade Value

(Million Dollars)

	Petroleum[a]			Energy[b]			Non-Energy Balance	Total Merchandise		
	Exports	Imports	Balance	Exports	Imports	Balance		Exports	Imports	Balance
1974 Total	**792**	**24,668**	**-23,876**	**3,444**	**25,454**	**-22,010**	**18,126**	**99,437**	**103,321**	**-3,884**
1975 Total	**907**	**25,197**	**-24,289**	**4,470**	**26,476**	**-22,006**	**31,557**	**108,856**	**99,305**	**9,551**
1976 Total	**998**	**32,226**	**-31,228**	**4,226**	**33,996**	**-29,770**	**21,950**	**116,794**	**124,614**	**-7,820**
1977 Total	**1,276**	**42,368**	**-41,093**	**4,184**	**44,537**	**-40,354**	**12,001**	**123,182**	**151,534**	**-28,353**
1978 Total	**1,561**	**39,526**	**-37,965**	**3,881**	**42,096**	**-38,215**	**8,010**	**145,847**	**176,052**	**-30,205**
1979 Total	**1,914**	**56,715**	**-54,801**	**5,621**	**59,998**	**-54,377**	**30,455**	**186,363**	**210,285**	**-23,922**
1980 Total	**2,833**	**78,637**	**-75,803**	**7,982**	**82,924**	**-74,942**	**55,246**	**225,566**	**245,262**	**-19,696**
1981 Total	**3,696**	**76,659**	**-72,963**	**10,279**	**81,360**	**-71,081**	**48,814**	**238,715**	**260,982**	**-22,267**
1982 Total	**5,947**	**60,458**	**-54,511**	**12,729**	**65,409**	**-52,680**	**25,170**	**216,442**	**243,952**	**-27,510**
1983 Total	**4,557**	**53,217**	**-48,659**	**9,500**	**57,952**	**-48,452**	**-3,957**	**205,639**	**258,048**	**-52,409**
1984 Total	**4,470**	**56,924**	**-52,454**	**9,311**	**60,980**	**-51,669**	**-55,033**	**223,976**	**330,678**	**-106,703**
1985 Total	**4,707**	**50,475**	**-45,768**	**9,971**	**53,917**	**-43,946**	**-73,765**	**218,815**	**336,526**	**-117,712**
1986 Total	**3,640**	**35,142**	**-31,503**	**8,115**	**37,310**	**-29,195**	**-109,084**	**227,159**	**365,438**	**-138,279**
1987 Total	**3,922**	**42,285**	**-38,363**	**7,713**	**44,220**	**-36,506**	**-115,613**	**254,122**	**406,241**	**-152,119**
1988 Total	**3,693**	**38,787**	**-35,094**	**8,235**	**41,042**	**-32,806**	**-85,720**	**322,426**	**440,952**	**-118,526**
1989 Total	**5,021**	**49,704**	**-44,683**	**9,869**	**52,779**	**-42,910**	**-66,490**	**363,812**	**473,211**	**-109,399**
1990 Total	**6,901**	**61,583**	**-54,682**	**12,233**	**64,661**	**-52,428**	**-50,068**	**393,592**	**496,088**	**-102,496**
1991 Total	**6,954**	**51,350**	**-44,396**	**12,081**	**54,629**	**-42,548**	**-24,175**	**421,730**	**488,453**	**-66,723**
1992 Total	**6,412**	**51,217**	**-44,805**	**11,254**	**55,256**	**-44,002**	**-40,500**	**448,164**	**532,665**	**-84,501**
1993 Total	**6,215**	**51,046**	**-44,831**	**9,756**	**55,900**	**-46,144**	**-69,425**	**465,091**	**580,659**	**-115,568**
1994 Total	**5,659**	**50,835**	**-45,176**	**8,911**	**56,391**	**-47,480**	**-103,149**	**512,626**	**663,256**	**-150,629**
1995 January	491	4,148	-3,657	792	4,572	-3,780	R -9,881	43,633	R 57,293	R -13,661
February	528	3,948	-3,420	793	4,321	-3,528	R -6,690	44,999	R 55,217	R -10,218
March	552	4,654	-4,102	882	5,064	-4,182	R -6,822	52,579	R 63,583	R -11,004
April	504	4,344	-3,840	818	4,715	-3,897	R -8,087	47,808	R 59,792	R -11,984
May	538	5,115	-4,577	883	5,511	-4,628	R -8,715	49,855	R 63,198	R -13,343
June	508	4,955	-4,447	865	5,325	-4,460	R -10,237	49,393	R 64,090	R -14,697
July	476	4,687	-4,211	815	5,053	-4,238	R -13,226	44,390	R 61,854	R -17,464
August	469	4,567	-4,098	844	4,933	-4,089	R -11,391	48,972	R 64,452	R -15,480
September	444	4,648	-4,204	820	5,031	-4,211	R -9,482	49,723	R 63,417	R -13,693
October	587	4,278	-3,691	954	4,665	-3,711	R -11,851	51,828	R 67,390	R -15,562
November	529	4,423	-3,894	883	4,830	-3,947	R -8,920	50,710	R 63,577	R -12,867
December	696	4,601	-3,905	1,011	5,089	-4,078	R -4,748	50,853	R 59,679	R -8,826
Total	**6,321**	**54,368**	**-48,047**	**10,358**	**59,109**	**-48,751**	**R -110,050**	**584,742**	**R 743,543**	**R -158,801**
1996 January	R 722	R 5,327	R -4,605	R 1,032	R 5,842	R -4,810	R -9,332	R 47,767	R 61,910	R -14,142
February	R 611	R 4,315	R -3,704	R 932	R 4,791	R -3,859	R -5,609	R 51,112	R 60,580	R -9,468
March	R 612	R 4,679	R -4,067	R 941	R 5,197	R -4,256	R -4,156	R 54,952	R 63,364	R -8,412
April	R 517	R 6,004	R -5,487	R 864	R 6,472	R -5,608	R -7,184	R 51,872	R 64,664	R -12,792
May	R 574	R 6,421	R -5,847	R 921	R 6,846	R -5,925	R -7,573	R 53,359	R 66,857	R -13,498
June	R 498	R 5,787	R -5,289	R 867	R 6,217	R -5,350	R -7,025	R 51,821	R 64,196	R -12,375
July	R 592	R 6,407	R -5,815	R 942	R 6,869	R -5,927	R -14,157	R 47,598	R 67,682	R -20,084
August	R 640	R 6,006	R -5,366	R 993	R 6,492	R -5,499	R -10,951	R 51,575	R 68,025	R -16,450
September	R 695	R 6,557	R -5,862	R 1,071	R 6,993	R -5,922	R -11,788	R 50,598	R 68,309	R -17,710
October	R 961	R 7,021	R -6,060	R 1,353	R 7,480	R -6,127	R -11,883	R 56,107	R 74,118	R -18,010
November	R 724	R 6,147	R -5,423	R 1,080	R 6,747	R -5,667	R -7,333	R 55,016	R 68,016	R -13,000
December	R 839	R 7,351	R -6,512	R 1,185	R 8,141	R -6,956	R -7,318	R 53,295	R 67,570	R -14,274
Total	**R 7,984**	**R 72,022**	**R -64,038**	**R 12,181**	**R 78,086**	**R -65,905**	**R -104,309**	**R 625,075**	**R 795,289**	**R -170,214**
1997 January	763	6,394	-5,631	1,096	7,287	-6,191	-10,168	50,544	66,903	-16,359
February	681	5,773	-5,092	1,009	6,474	-5,465	-6,528	53,202	65,196	-11,993
March	639	6,018	-5,379	973	6,614	-5,641	R -3,729	R 61,275	R 70,645	R -9,370
April	677	5,686	-5,009	992	6,313	-5,321	-7,095	58,806	71,222	-12,416
4-Month Total	**2,760**	**23,871**	**-21,111**	**4,070**	**26,688**	**-22,618**	**-27,520**	**223,827**	**273,966**	**-50,138**
1996 4-Month Total	**2,462**	**20,325**	**-17,863**	**3,768**	**22,301**	**-18,533**	**-26,281**	**205,704**	**250,518**	**-44,814**
1995 4-Month Total	**2,075**	**17,094**	**-15,019**	**3,285**	**18,672**	**-15,387**	**-31,640**	**189,019**	**235,886**	**-46,868**

[a] Crude oil, petroleum preparations, liquefied propane and butane, and other mineral fuels.

[b] Petroleum, coal, natural gas, and electricity.

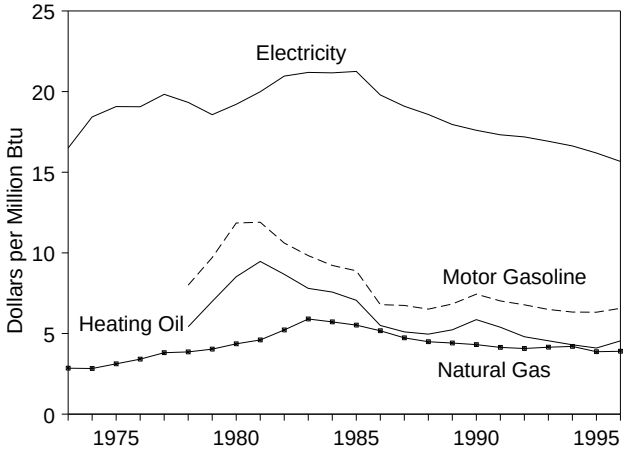
R=Revised data. NA=Not available.

Notes: • Monthly data are not adjusted for seasonal variations. • See Note 5 at end of section. • Totals may not equal sum of components due to independent rounding. • The U.S. import statistics reflect both government and nongovernment imports of merchandise from foreign countries into the U.S. customs territory, which comprises the 50 States, the District of Columbia, Puerto Rico, and the Virgin Islands.

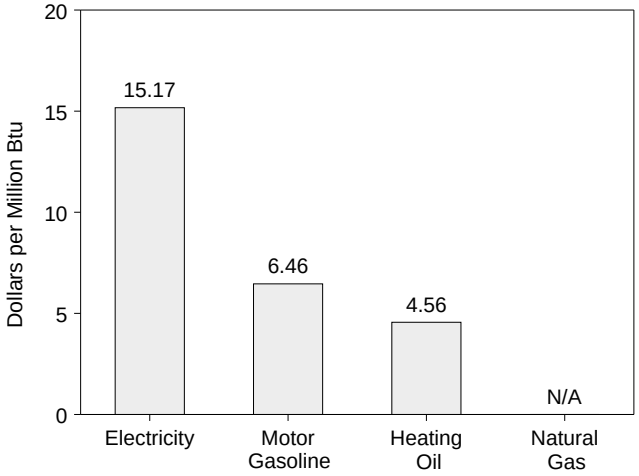
Sources: • U.S. Department of Commerce, Bureau of the Census, Foreign Trade Division. For details, see "Sources for Table 1.6" at the end of this section.

Figure 1.6 Cost of Fuels to End-Users in Constant (1982-1984) Dollars

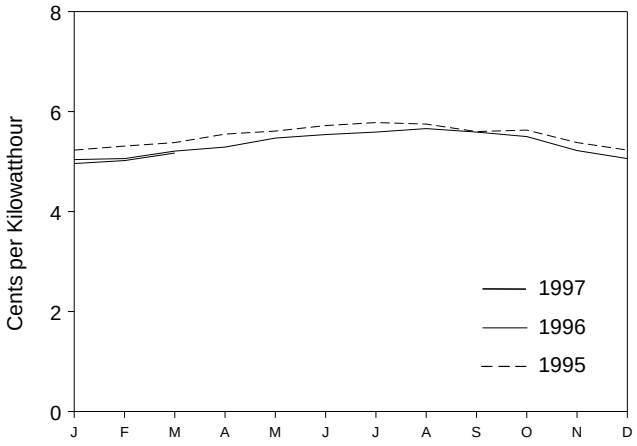
Costs, 1973-1996



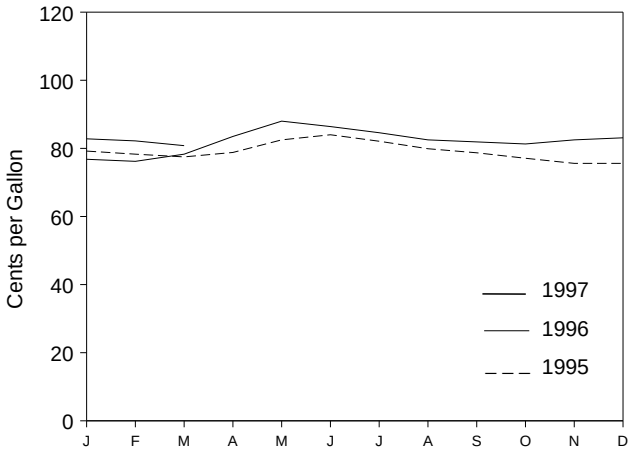
Costs, March 1997



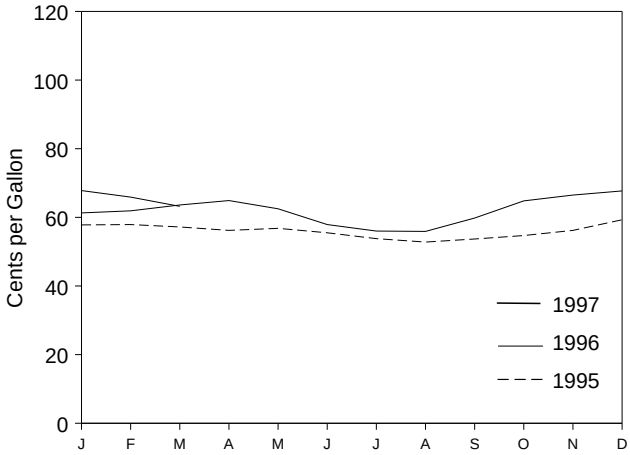
Electricity, Monthly



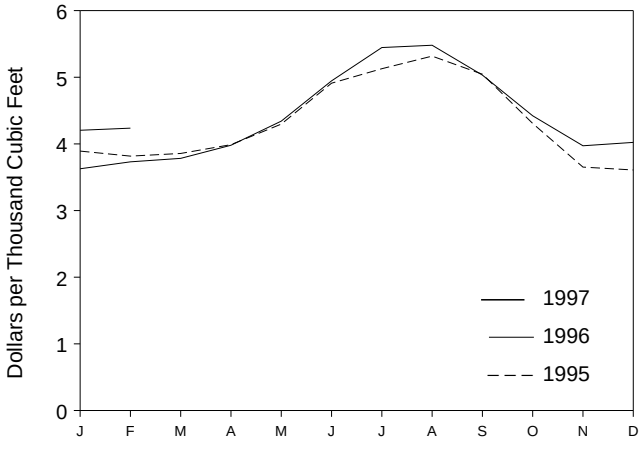
Motor Gasoline, Monthly



Heating Oil, Monthly



Natural Gas, Monthly



Source: Table 1.7.

Table 1.7 Cost of Fuels to End Users in Constant (1982-84) Dollars

	Consumer Price Index (Urban)[a]	Motor Gasoline (All Types)		Residential Heating Oil		Residential Natural Gas		Residential Electricity	
	Index 1982-1984=100	Cents per Gallon	Dollars per Million Btu	Cents per Gallon	Dollars per Million Btu	Cents per Thousand Cubic Feet	Dollars per Million Btu	Cents per Kilowatthour	Dollars per Million Btu
1973 Average	**44.4**	**NA**	**NA**	**NA**	**NA**	**290.5**	**2.85**	**5.6**	**16.50**
1974 Average	**49.3**	**NA**	**NA**	**NA**	**NA**	**290.1**	**2.83**	**6.3**	**18.43**
1975 Average	**53.8**	**NA**	**NA**	**NA**	**NA**	**317.8**	**3.12**	**6.5**	**19.07**
1976 Average	**56.9**	**NA**	**NA**	**NA**	**NA**	**348.0**	**3.41**	**6.5**	**19.06**
1977 Average	**60.6**	**NA**	**NA**	**NA**	**NA**	**387.8**	**3.81**	**6.8**	**19.83**
1978 Average	**65.2**	**100.0**	**8.00**	**75.2**	**5.42**	**392.6**	**3.86**	**6.6**	**19.33**
1979 Average	**72.6**	**121.5**	**9.71**	**97.0**	**6.99**	**410.5**	**4.03**	**6.3**	**18.57**
1980 Average	**82.4**	**148.2**	**11.85**	**118.2**	**8.52**	**446.6**	**4.36**	**6.6**	**19.21**
1981 Average	**90.9**	**148.8**	**11.90**	**131.4**	**9.47**	**471.9**	**4.60**	**6.8**	**19.99**
1982 Average	**96.5**	**132.7**	**10.61**	**120.2**	**8.67**	**535.8**	**5.22**	**7.2**	**20.96**
1983 Average	**99.6**	**123.0**	**9.83**	**108.2**	**7.80**	**608.4**	**5.90**	**7.2**	**21.19**
1984 Average	**103.9**	**115.3**	**9.22**	**105.0**	**7.57**	**589.0**	**5.72**	**7.2**	**21.16**
1985 Average	**107.6**	**111.2**	**8.89**	**97.9**	**7.06**	**568.8**	**5.52**	**7.2**	**21.25**
1986 Average	**109.6**	**84.9**	**6.79**	**76.3**	**5.50**	**531.9**	**5.17**	**6.8**	**19.79**
1987 Average	**113.6**	**84.2**	**6.74**	**70.7**	**5.10**	**487.7**	**4.73**	**6.5**	**19.09**
1988 Average	**118.3**	**81.4**	**6.51**	**68.7**	**4.96**	**462.4**	**4.49**	**6.3**	**18.58**
1989 Average	**124.0**	**85.5**	**6.83**	**72.6**	**5.23**	**454.8**	**4.41**	**6.1**	**17.96**
1990 Average	**130.7**	**93.1**	**7.44**	**81.3**	**5.86**	**443.8**	**4.31**	**6.01**	**17.60**
1991 Average	**136.2**	**87.8**	**7.02**	**74.8**	**5.39**	**427.3**	**4.14**	**5.91**	**17.32**
1992 Average	**140.3**	**84.8**	**6.78**	**66.6**	**4.80**	**419.8**	**4.07**	**5.87**	**17.19**
1993 Average	**144.5**	**81.2**	**6.49**	**63.0**	**4.55**	**426.3**	**4.15**	**5.77**	**16.92**
1994 Average	**148.2**	**79.2**	**6.33**	**59.6**	**4.30**	**432.5**	**4.20**	**5.67**	**16.63**
1995 January	150.3	79.2	6.33	57.8	4.17	389.2	3.79	5.23	15.33
February	150.9	78.3	6.26	57.9	4.18	381.7	3.72	5.31	15.58
March	151.4	77.5	6.19	57.2	4.12	385.7	3.76	5.38	15.78
April	151.9	78.8	6.30	56.2	4.05	398.9	3.88	5.55	16.27
May	152.2	82.5	6.60	56.8	4.09	429.7	4.18	5.61	16.45
June	152.5	84.0	6.72	55.5	4.00	491.1	4.78	5.72	16.78
July	152.5	82.1	6.56	53.8	3.88	512.8	4.99	5.78	16.93
August	152.9	79.9	6.39	52.8	3.81	531.7	5.18	5.75	16.85
September	153.2	78.7	6.29	53.7	3.87	504.6	4.91	5.60	16.41
October	153.7	77.1	6.16	54.7	3.94	430.7	4.19	5.63	16.51
November	153.6	75.6	6.04	56.2	4.05	365.2	3.56	5.38	15.78
December	153.5	75.6	6.04	59.3	4.28	360.9	3.51	5.23	15.33
Average	**152.4**	**79.1**	**6.32**	**56.9**	**4.10**	**397.6**	**3.87**	**5.52**	**16.19**
1996 January	154.4	76.8	6.14	61.3	4.42	362.7	3.53	5.04	14.77
February	154.9	76.2	6.10	61.9	4.46	373.1	3.63	5.06	14.83
March	155.7	78.3	6.26	63.6	4.59	378.3	3.68	5.21	15.27
April	156.3	83.5	6.68	64.9	4.68	398.0	3.87	5.29	15.51
May	156.6	88.0	7.04	62.5	4.50	434.2	4.23	5.47	16.04
June	156.7	86.4	6.91	57.9	4.18	494.6	4.82	5.54	16.23
July	157.0	84.6	6.76	56.0	4.04	544.6	5.30	5.59	16.37
August	157.3	82.5	6.60	55.9	4.03	548.0	5.34	5.66	16.58
September	157.8	81.9	6.55	59.8	4.31	503.2	4.90	5.59	16.38
October	158.3	81.3	6.50	64.8	4.67	R 442.2	R 4.31	5.50	16.11
November	158.6	82.5	6.59	66.5	4.79	R 397.2	R 3.87	5.22	15.30
December	158.6	83.1	6.64	67.7	4.88	R 402.3	R 3.92	5.06	14.82
Average	**156.9**	**82.1**	**6.56**	**63.0**	**4.54**	R **400.9**	R **3.90**	**5.35**	**15.67**
1997 January	159.1	82.8	6.62	67.8	4.89	420.5	4.09	4.96	14.53
February	159.6	82.2	6.57	65.9	4.75	R 423.6	R 4.12	5.02	14.71
March	160.0	80.8	6.46	63.2	4.56	NA	NA	5.17	15.17

[a] Consumer Price Index, All Urban Consumers, All Items, 1982-1984 = 100.0.

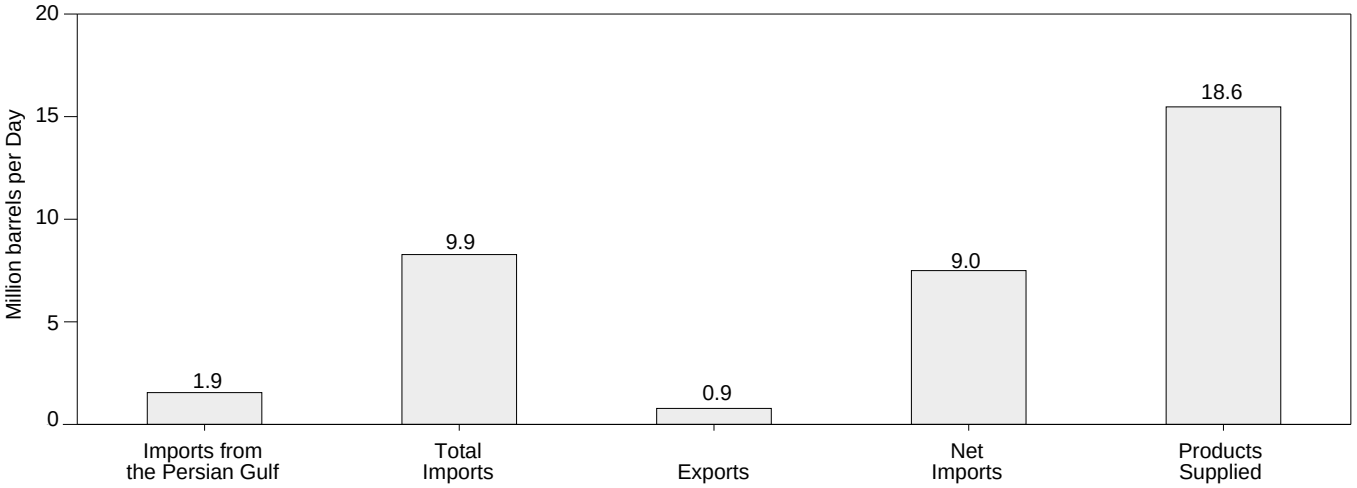
R=Revised data. NA=Not available.

Notes: • Fuel costs are calculated by using the Urban Consumer Price Index (CPI) developed by the Bureau of Labor Statistics. • Annual averages may not equal average of months due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Sources: • **Annual Data:** Annual prices in Tables 9.4 (All Types), 9.8c, 9.11, and 9.9 (Monthly Series), adjusted by the CPI. • **Monthly Data:** Monthly prices in Tables 9.4 (All Types), 9.8c, 9.11, and 9.9 (Monthly Series), adjusted by the CPI. • **CPI: 1973-1993**—*Economic Report of the President,* February 1997, Table B-59. **1994 forward**—Council of Economic Advisers, *Economic Indicators,* May 1997, "Consumer Prices - All Urban Consumers." • **Conversion Factors:** Tables A1, A4, and A8.

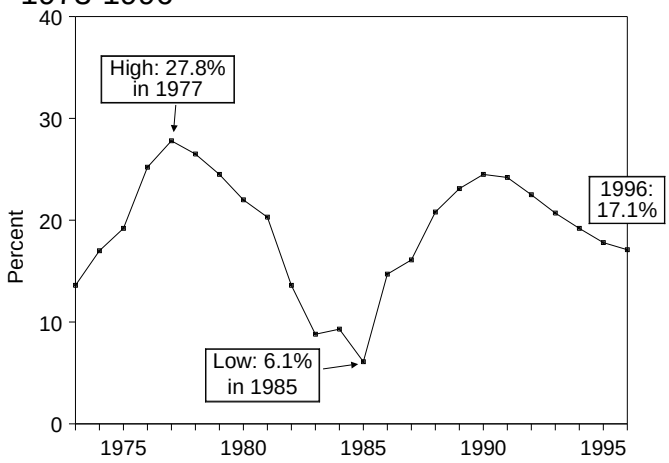
Figure 1.7 Overview of U.S. Petroleum Trade
(Quadrillion Btu)

Overview, April 1997

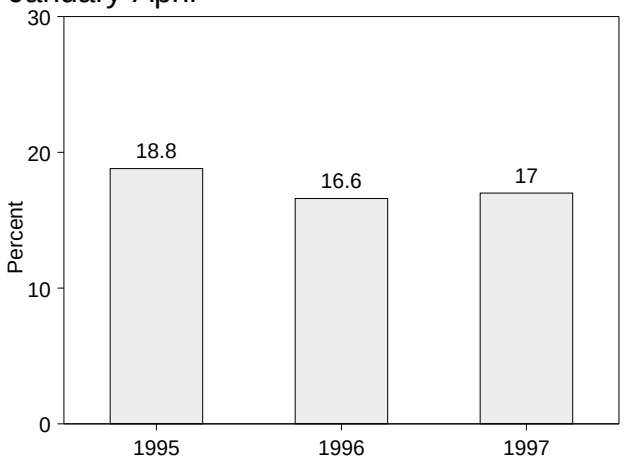


Imports from the Persian Gulf as a Share of Total Imports

1973-1996

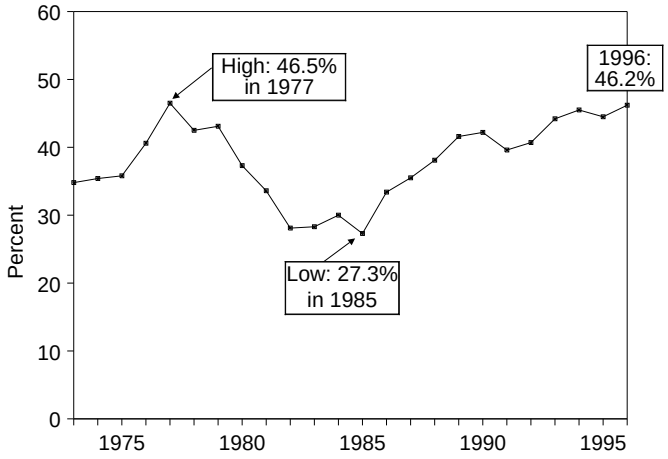


January-April



Net Imports as Share of Product Supplied

1973-1996



January-April

Note: Because vertical scales differ, graphs should not be compared.
Source: Table 1.8.

Table 1.8 Overview of U.S. Petroleum Trade

	Imports from the Persian Gulf[a]	Total Imports	Exports	Net Imports	Products Supplied	As Share of Products Supplied			Imports from the Persian Gulf[a] as a Share of Total Imports
						Imports from the Persian Gulf[a]	Total Imports	Net Imports	
	Thousand Barrels per Day					Percent			
1973 Average	**848**	**6,256**	**231**	**6,025**	**17,308**	**4.9**	**36.1**	**34.8**	**13.6**
1974 Average	**1,039**	**6,112**	**221**	**5,892**	**16,653**	**6.2**	**36.7**	**35.4**	**17.0**
1975 Average	**1,165**	**6,056**	**209**	**5,846**	**16,322**	**7.1**	**37.1**	**35.8**	**19.2**
1976 Average	**1,840**	**7,313**	**223**	**7,090**	**17,461**	**10.5**	**41.9**	**40.6**	**25.2**
1977 Average	**2,448**	**8,807**	**243**	**8,565**	**18,431**	**13.3**	**47.8**	**46.5**	**27.8**
1978 Average	**2,219**	**8,363**	**362**	**8,002**	**18,847**	**11.8**	**44.4**	**42.5**	**26.5**
1979 Average	**2,069**	**8,456**	**471**	**7,985**	**18,513**	**11.2**	**45.7**	**43.1**	**24.5**
1980 Average	**1,519**	**6,909**	**544**	**6,365**	**17,056**	**8.9**	**40.5**	**37.3**	**22.0**
1981 Average	**1,219**	**5,996**	**595**	**5,401**	**16,058**	**7.6**	**37.3**	**33.6**	**20.3**
1982 Average	**696**	**5,113**	**815**	**4,298**	**15,296**	**4.5**	**33.4**	**28.1**	**13.6**
1983 Average	**442**	**5,051**	**739**	**4,312**	**15,231**	**2.9**	**33.2**	**28.3**	**8.8**
1984 Average	**506**	**5,437**	**722**	**4,715**	**15,726**	**3.2**	**34.6**	**30.0**	**9.3**
1985 Average	**311**	**5,067**	**781**	**4,286**	**15,726**	**2.0**	**32.2**	**27.3**	**6.1**
1986 Average	**912**	**6,224**	**785**	**5,439**	**16,281**	**5.6**	**38.2**	**33.4**	**14.7**
1987 Average	**1,077**	**6,678**	**764**	**5,914**	**16,665**	**6.5**	**40.1**	**35.5**	**16.1**
1988 Average	**1,541**	**7,402**	**815**	**6,587**	**17,283**	**8.9**	**42.8**	**38.1**	**20.8**
1989 Average	**1,861**	**8,061**	**859**	**7,202**	**17,325**	**10.7**	**46.5**	**41.6**	**23.1**
1990 Average	**1,966**	**8,018**	**857**	**7,161**	**16,988**	**11.6**	**47.2**	**42.2**	**24.5**
1991 Average	**1,845**	**7,627**	**1,001**	**6,626**	**16,714**	**11.0**	**45.6**	**39.6**	**24.2**
1992 Average	**1,778**	**7,888**	**950**	**6,938**	**17,033**	**10.4**	**46.3**	**40.7**	**22.5**
1993 Average	**1,782**	**8,620**	**1,003**	**7,618**	**17,237**	**10.3**	**50.0**	**44.2**	**20.7**
1994 Average	**1,728**	**8,996**	**942**	**8,054**	**17,718**	**9.8**	**50.8**	**45.5**	**19.2**
1995 January	1,459	8,015	978	7,037	17,219	8.5	46.5	40.9	18.2
February	1,550	8,345	1,062	7,283	18,279	8.5	45.7	39.8	18.6
March	1,788	9,006	948	8,059	17,484	10.2	51.5	46.1	19.8
April	1,547	8,465	998	7,467	17,142	9.0	49.4	43.6	18.3
May	1,490	8,709	876	7,832	17,293	8.6	50.4	45.3	17.1
June	1,558	9,558	919	8,639	18,131	8.6	52.7	47.6	16.3
July	1,460	8,863	895	7,969	17,147	8.5	51.7	46.5	16.5
August	1,541	9,061	821	8,240	18,044	8.5	50.2	45.7	17.0
September	1,691	9,736	805	8,930	18,026	9.4	54.0	49.5	17.4
October	1,524	8,577	962	7,615	17,651	8.6	48.6	43.1	17.8
November	1,677	9,074	1,002	8,072	17,979	9.3	50.5	44.9	18.5
December	1,593	8,612	1,135	7,477	18,366	8.7	46.9	40.7	18.5
Average	**1,573**	**8,835**	**949**	**7,886**	**17,725**	**8.9**	**49.8**	**44.5**	**17.8**
1996 January	1,546	9,272	1,070	8,202	18,212	8.5	50.9	45.0	16.7
February	1,344	8,287	1,048	7,240	18,498	7.3	44.8	39.1	16.2
March	1,549	8,967	867	8,101	18,180	8.5	49.3	44.6	17.3
April	1,506	9,357	976	8,381	17,837	8.4	52.5	47.0	16.1
May	1,748	9,914	891	9,023	17,857	9.8	55.5	50.5	17.6
June	1,537	9,920	895	9,025	18,049	8.5	55.0	50.0	15.5
July	1,819	9,752	945	8,808	18,143	10.0	53.8	48.5	18.6
August	1,747	9,866	896	8,970	18,513	9.4	53.3	48.4	17.7
September	1,591	9,078	1,104	7,974	17,605	9.0	51.6	45.3	17.5
October	1,635	9,747	1,045	8,702	19,103	8.6	51.0	45.6	16.8
November	1,518	9,143	1,024	8,119	18,496	8.2	49.4	43.9	16.6
December	1,684	9,412	1,013	8,400	18,300	9.2	51.4	45.9	17.9
Average	**1,604**	**9,399**	**981**	**8,419**	**18,234**	**8.8**	**51.5**	**46.2**	**17.1**
1997 January	1,553	9,633	1,038	8,595	18,560	8.4	51.9	46.3	16.1
February	1,533	9,475	1,015	8,460	18,308	8.4	51.8	46.2	16.2
March	1,641	9,712	932	8,780	17,869	9.2	54.4	49.1	16.9
April	1,862	9,934	937	8,997	18,572	10.0	53.5	48.4	18.7
4-Month Average	**1,648**	**9,692**	**980**	**8,712**	**18,325**	**9.0**	**52.9**	**47.5**	**17.0**
1996 4-Month Average	**1,488**	**8,979**	**989**	**7,990**	**18,179**	**8.2**	**49.4**	**44.0**	**16.6**
1995 4-Month Average	**1,587**	**8,460**	**995**	**7,466**	**17,515**	**9.1**	**48.3**	**42.6**	**18.8**

[a] Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, and the United Arab Emirates.

Notes: • Readers of Table 1.8 may be interested in a feature article, "Measuring Dependence on Imported Oil," that was published in the August 1995 *Monthly Energy Review.* • Petroleum is crude oil, lease condensate, unfinished oils, petroleum products, natural gas plant liquids, and nonhydrocarbon compounds blended into finished petroleum products. • Beginning in October 1977, petroleum imported for the Strategic Petroleum Reserves is included. • Annual averages may not equal average of months due to independent rounding. • U.S. geographic coverage is the 50 States and the District of Columbia. U.S. exports include shipments to U.S. territories, and imports include receipts from U.S. territories.

Sources: • **Column 1:** Table 3.3b. • **Columns 2 - 4:** Table 3.1b. • **Column 5:** Table 3.1a. • **Column 6:** Column 1 divided by column 5 times 100. • **Column 7:** Column 2 divided by column 5 times 100. • **Column 8:** Column 4 divided by column 5 times 100. • **Column 9:** Column 1 divided by column 2 times 100.

Figure 1.8 Energy Consumption per Dollar of Gross Domestic Product

(Thousand Btu per Chained (1992) Dollar)

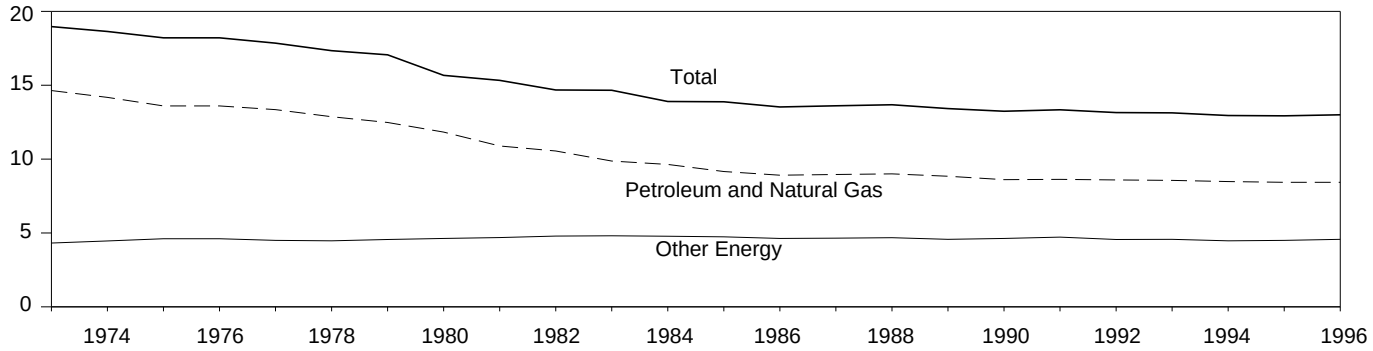


Table 1.9 Energy Consumption per Dollar of Gross Domestic Product

(Seasonally Adjusted at Annual Rates)

	Energy Consumption			Gross Domestic Product (GDP)	Energy Consumption per Dollar of GDP		
	Petroleum and Natural Gas	Other Energy[a]	Total[a]		Petroleum and Natural Gas	Other Energy[a]	Total[a]
	Quadrillion Btu			Billion Chained (1992) Dollars	Thousand Btu per Chained (1992) Dollar		
1973 Year	**57.352**	**16.930**	**74.282**	R **3,916.3**	R **14.64**	R **4.32**	R **18.97**
1974 Year	**55.187**	**17.356**	**72.543**	R **3,891.2**	R **14.18**	**4.46**	R **18.64**
1975 Year	**52.678**	**17.867**	**70.546**	R **3,873.9**	R **13.60**	R **4.61**	R **18.21**
1976 Year	**55.520**	**18.842**	**74.362**	R **4,082.9**	**13.60**	R **4.61**	R **18.21**
1977 Year	**57.053**	**19.236**	**76.288**	R **4,273.6**	R **13.35**	**4.50**	R **17.85**
1978 Year	**57.966**	**20.123**	**78.089**	R **4,503.0**	R **12.87**	R **4.47**	R **17.34**
1979 Year	**57.789**	**21.108**	**78.898**	R **4,630.6**	R **12.48**	**4.56**	**17.06**
1980 Year	**54.596**	**21.359**	**75.955**	R **4,615.0**	R **11.83**	**4.63**	R **15.67**
1981 Year	**51.859**	**22.131**	**73.990**	R **4,720.7**	R **10.89**	R **4.69**	R **15.33**
1982 Year	**48.736**	**22.111**	**70.848**	R **4,620.3**	R **10.55**	R **4.79**	R **14.68**
1983 Year	**47.411**	**23.114**	**70.524**	R **4,803.7**	R **9.87**	**4.81**	**14.66**
1984 Year	**49.558**	**24.586**	**74.144**	R **5,140.1**	R **9.64**	**4.78**	R **13.90**
1985 Year	**48.756**	**25.225**	**73.981**	R **5,323.5**	R **9.16**	R **4.74**	**13.88**
1986 Year	**48.904**	**25.393**	**74.297**	R **5,487.7**	**8.91**	**4.63**	**13.53**
1987 Year	**50.609**	**26.285**	**76.894**	R **5,649.5**	**8.96**	**4.65**	**13.61**
1988 Year	**52.774**	**27.443**	**80.218**	R **5,865.2**	**9.00**	**4.68**	**13.68**
1989 Year	**53.595**	**27.731**	**81.325**	R **6,062.0**	**8.84**	R **4.57**	**13.42**
1990 Year	**52.849**	**28.416**	**81.265**	R **6,136.3**	**8.61**	**4.63**	**13.24**
1991 Year	**52.452**	**28.665**	**81.116**	R **6,079.4**	**8.63**	**4.72**	**13.34**
1992 Year	**53.657**	**28.487**	**82.144**	**6,244.4**	**8.59**	**4.56**	**13.15**
1993 Year	**54.668**	**29.195**	**83.863**	R **6,386.1**	**8.56**	**4.57**	**13.13**
1994 Year	**56.022**	**29.565**	**85.587**	R **6,608.4**	**8.48**	**4.47**	**12.95**
1995 1st Quarter	56.537	29.859	86.395	R 6,700.2	8.44	4.46	12.89
2nd Quarter	57.101	30.040	87.141	R 6,712.7	8.51	R 4.48	12.98
3rd Quarter	56.813	30.836	87.649	R 6,775.8	8.38	4.55	R 12.94
4th Quarter	56.854	30.716	87.570	R 6,780.2	R 8.39	4.53	R 12.92
Year	**56.827**	**30.367**	**87.193**	**6,742.2**	**8.43**	**4.50**	**12.93**
1996 1st Quarter	R 58.849	R 31.715	R 90.564	6,813.8	8.64	R 4.65	R 13.29
2nd Quarter	R 58.559	R 31.852	R 90.411	6,892.1	8.50	R 4.62	13.12
3rd Quarter	R 57.237	R 31.061	R 88.298	R 6,928.1	R 8.20	R 4.45	R 12.65
4th Quarter	R 58.222	R 31.753	R 89.976	6,993.3	8.33	4.54	12.86
Year	R **58.214**	R **31.594**	R **89.808**	**6,906.8**	**8.43**	**4.57**	**13.00**
1997 1st Quarter	58.338	31.716	90.054	7,092.1	8.23	4.47	12.70

[a] Due to a lack of consistent monthly historical data, some renewable energy sources are not included in other energy or total consumption. For example, in 1995, 3.4 quadrillion Btu of renewable energy used by electric utilities to generate electricity for distribution is included, but an estimated 3.3 quadrillion Btu used by residential, commercial, and industrial consumers is not. See Note 12 at the end of Section 2 for details.

R=Revised data.

Notes: • Quarterly data are seasonally adjusted and shown at annual rates. • Yearly data may not equal average of quarters due to seasonality adjustments and independent rounding. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Sources: • **Energy Consumption:** Table 1.4. • **Gross Domestic Product: 1973-1995**—U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* May 1997, Table 2A. **1996 forward**—U.S. Department of Commerce, Bureau of Economic Analysis, *United States Department of Commerce News,* May 30, 1997, Table 2.

Figure 1.9 Passenger Car Efficiency

(Index, 1973 = 100)

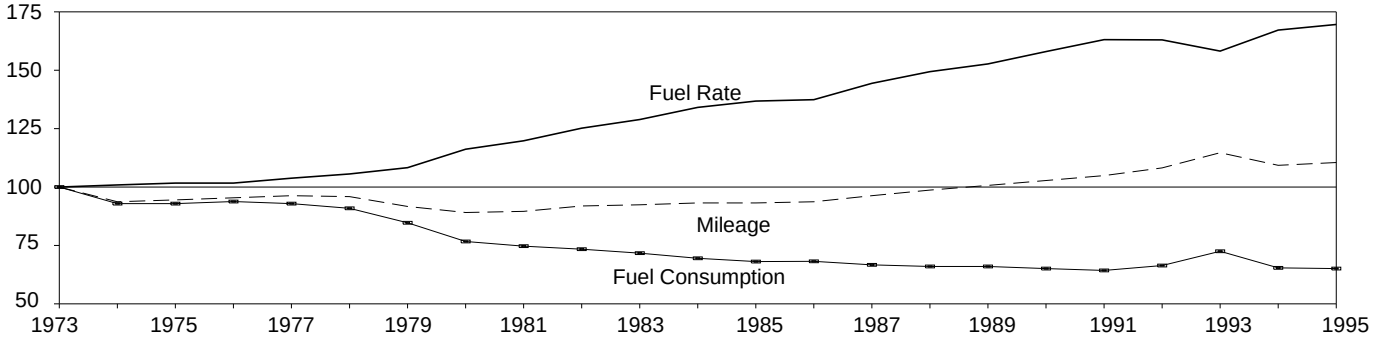


Table 1.10 Passenger Car Efficiency

	Mileage		Fuel Consumption		Fuel Rate	
	Miles per Car	Index 1973=100.0	Gallons per Car	Index 1973=100.0	Miles per Gallon	Index 1973=100.0
1973	**10,256**	**100.0**	**771**	**100.0**	**13.30**	**100.0**
1974	**9,606**	**93.7**	**716**	**92.9**	**13.42**	**100.9**
1975	**9,690**	**94.5**	**716**	**92.9**	**13.52**	**101.7**
1976	**9,785**	**95.4**	**723**	**93.8**	**13.53**	**101.7**
1977	**9,879**	**96.3**	**716**	**92.9**	**13.80**	**103.8**
1978	**9,835**	**95.9**	**701**	**90.9**	**14.04**	**105.6**
1979	**9,403**	**91.7**	**653**	**84.7**	**14.41**	**108.3**
1980	**9,141**	**89.1**	**591**	**76.7**	**15.46**	**116.2**
1981	**9,186**	**89.6**	**576**	**74.7**	**15.94**	**119.8**
1982	**9,428**	**91.9**	**566**	**73.4**	**16.65**	**125.2**
1983	**9,475**	**92.4**	**553**	**71.7**	**17.14**	**128.9**
1984	**9,558**	**93.2**	**536**	**69.5**	**17.83**	**134.1**
1985	**9,560**	**93.2**	**525**	**68.1**	**18.20**	**136.8**
1986	**9,608**	**93.7**	**526**	**68.2**	**18.27**	**137.4**
1987	**9,878**	**96.3**	**514**	**66.7**	**19.20**	**144.4**
1988	**10,121**	**98.7**	**509**	**66.0**	**19.87**	**149.4**
1989	**10,332**	**100.7**	**509**	**66.0**	**20.31**	**152.7**
1990	**10,548**	**102.8**	**502**	**65.1**	**21.02**	**158.0**
1991	**10,757**	**104.9**	**496**	**64.3**	**21.69**	**163.1**
1992	**11,100**	**108.2**	**512**	**66.4**	**21.68**	**163.0**
1993	**11,760**	**114.7**	**559**	**72.5**	**21.04**	**158.2**
1994	**11,210**	**109.3**	**504**	**65.4**	**22.24**	**167.2**
1995[a]	**11,329**	**110.5**	**502**	**65.1**	**22.56**	**169.6**

[a] Preliminary data.

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

Sources: Indices are prepared from statistics published by the U.S. Department of Transportation, Federal Highway Administration, Federal Highway Statistics Division. • **1973-1985:** *Highway Statistics Summary to 1985,* Table VM-201A. • **1986 forward:** *Highway Statistics,* annual, Table VM-1.

Table 1.11 Heating Degree-Days by Census Division

Census Divisions	May 1 through May 31					Cumulative July 1 through May 31				
				Percent Change					Percent Change	
	Normal[a]	1996	1997	Normal to 1997	1996 to 1997	Normal[a]	1996	1997	Normal to 1997	1996 to 1997
New England										
Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont	275	328	359	30.5	9.5	6,562	6,846	6,564	0.0	-4.1
Middle Atlantic										
New Jersey, New York, Pennsylvania	200	273	298	49.0	9.2	5,808	6,116	5,748	-1.0	-6.0
East North Central										
Illinois, Indiana, Michigan, Ohio, Wisconsin	217	283	365	68.2	29.0	6,377	6,950	6,656	4.4	-4.2
West North Central										
Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota	189	233	291	54.0	24.9	6,592	7,111	7,066	7.2	-.6
South Atlantic										
Delaware, Florida, Georgia, Maryland and the District of Columbia, North Carolina, South Carolina, Virginia, West Virginia	51	78	111	([c])	([c])	2,891	3,244	2,795	-3.3	-13.8
East South Central										
Alabama, Kentucky, Mississippi, Tennessee	63	52	139	([c])	([c])	3,585	4,025	3,497	-2.5	-13.1
West South Central										
Arkansas, Louisiana, Oklahoma, Texas	10	8	42	([c])	([c])	2,305	2,409	2,290	-.7	-4.9
Mountain										
Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming	231	208	192	-16.9	-7.7	5,241	4,893	5,095	-2.8	4.1
Pacific[b]										
California, Oregon, Washington	183	184	119	-35.0	-35.3	3,166	2,830	2,990	-5.6	5.7
U.S. Average[b]	**150**	**181**	**209**	**39.3**	**15.5**	**4,540**	**4,766**	**4,553**	**.3**	**-4.5**

[a] "Normal" is based on calculations of data from 1961 through 1990.
[b] Excludes Alaska and Hawaii.
[c] Percent change is not meaningful: normal is less than 100 or ratio is incalculable.

Notes: Degree-days are relative measurements of outdoor air temperature used as an index for heating and cooling energy requirements. Heating degree-days are the number of degrees that the daily average temperature falls below 65° F. Cooling degree-days are the number of degrees that the daily average temperature rises above 65° F. The daily average temperature is the mean of the maximum and minimum temperatures in a 24-hour period. For example, a weather station recording an average daily temperature of 40° F would report 25 heating degree-days for that day (and 0 cooling degree-days). If a weather station recorded an average daily temperature of 78° F, cooling degree-days for that station would be 13 (and 0 heating degree days).

Sources: See end of section.

Table 1.12 Cooling Degree-Days by Census Division

Census Divisions	May 1 through May 31					Cumulative January 1 through May 31				
				Percent Change					Percent Change	
	Normal[a]	1996	1997	Normal to 1997	1996 to 1997	Normal[a]	1996	1997	Normal to 1997	1996 to 1997
New England										
Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont	5	17	0	(c)	(c)	5	18	0	(c)	(c)
Middle Atlantic										
New Jersey, New York, Pennsylvania	24	31	1	(c)	(c)	24	31	1	(c)	(c)
East North Central										
Illinois, Indiana, Michigan, Ohio, Wisconsin	52	40	2	(c)	(c)	54	40	2	(c)	(c)
West North Central										
Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota	72	67	13	(c)	(c)	83	70	13	(c)	(c)
South Atlantic										
Delaware, Florida, Georgia, Maryland and the District of Columbia, North Carolina, South Carolina, Virginia, West Virginia	176	220	127	-27.8	-42.3	352	369	332	-5.7	-10.0
East South Central										
Alabama, Kentucky, Mississippi, Tennessee	142	202	57	-59.9	-71.8	206	224	73	-64.6	-67.4
West South Central										
Arkansas, Louisiana, Oklahoma, Texas	253	393	180	-28.9	-54.2	432	515	234	-45.8	-54.6
Mountain										
Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming	85	112	123	(c)	(c)	127	137	152	19.7	10.9
Pacific[b]										
California, Oregon, Washington	31	56	95	(c)	(c)	49	63	95	(c)	(c)
U.S. Average[b]	**95**	**126**	**68**	**(c)**	**(c)**	**155**	**169**	**113**	**-27.1**	**-33.1**

[a] "Normal" is based on calculations of data from 1961 through 1990.
[b] Excludes Alaska and Hawaii.
[c] Percent change is not meaningful: normal is less than 100 or ratio is incalculable.

Notes: Degree-days are relative measurements of outdoor air temperature used as an index for heating and cooling energy requirements. Cooling degree-days are the number of degrees that the daily average temperature rises above 65° F. Heating degree-days are the number of degrees that the daily average temperature falls below 65° F. The daily average temperature is the mean of the maximum and minimum temperatures in a 24-hour period. For example, if a weather station recorded an average daily temperature of 78° F, cooling degree-days for that station would be 13 (and 0 heating degree-days). A weather station recording an average daily temperature of 40° F would report 25 heating degree-days for that day (and 0 cooling degree-days).

Sources: See end of section.

Energy Summary Notes

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

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

3. Energy Imports: Energy imports include imports of coal, crude oil (including crude oil imported for the Strategic Petroleum Reserve), petroleum products, natural gas, electricity (assumed to be hydroelectricity), and coal coke. Approximate heat contents (Btu values) are derived by using the conversion factors provided in Appendix A. For further information on electricity, see "Note for imports and exports of electricity" under Note 8 of Section 2, Energy Consumption Section Notes and Sources.

4. Energy Exports: Energy exports include coal, crude oil, petroleum products, natural gas, electricity produced from hydroelectric power, and coal coke. Approximate heat contents (Btu values) are derived by using the conversion factors provided in Appendix A. For more information on electricity, see "Note for imports and exports of electricity" under Note 8 of Section 2, Energy Consumption Section Notes and Sources.

5. Merchandise Trade Value: Import data presented are based on the customs value. That value does not include insurance and freight and is consequently lower than the cost, insurance, and freight (CIF) value, which is also reported by the Bureau of the Census. All export data, and import data prior to 1981, are on a free alongside ship (f.a.s.) basis.

"Balance" is exports minus imports; a positive balance indicates a surplus trade value and a negative balance indicates a deficit trade value. "Energy" includes mineral fuels, lubricants, and related material. "Non-Energy Balance" and "Total Merchandise" include foreign exports (i.e., re-exports) and nonmonetary gold and Department of Defense Grant-Aid shipments. The "Non-Energy Balance" is calculated by subtracting the "Energy" from the "Total Merchandise Balance."

"Imports" consist of government and nongovernment shipments of merchandise into the 50 States, the District of Columbia, Puerto Rico, the U.S. Virgin Islands, and the U.S. Foreign Trade Zones. They reflect the total arrival from foreign countries of merchandise that immediately entered consumption channels, warehouses, the Foreign Trade Zones, or the Strategic Petroleum Reserve. They exclude shipments between the United States, Puerto Rico, and U.S. possessions, shipments to U.S. Armed Forces and diplomatic missions abroad for their own use, U.S. goods returned to the United States by its Armed Forces, and in-transit shipments.

Sources for Table 1.6

U.S. Department of Commerce, Bureau of the Census, Foreign Trade Division:

Petroleum Exports

1974-1987: "U.S. Exports," FT410, December issues.
1988: "Report on U.S. Merchandise Trade, 1988 Final Revisions."
1989: "Report on U.S. Merchandise Trade, 1989 Revisions."
1990: "U.S. Merchandise Trade, 1990 Final Report."
1991: "U.S. Merchandise Trade, 1991 Final Report," May 13, 1992.
1992: "U.S. Merchandise Trade, 1992 Final Report," May 12, 1993.
1993: "U.S. International Trade in Goods and Services, Annual Revision for 1993."
1994: "U.S. International Trade in Goods and Services, Annual Revision for 1994."
1995: "U.S. International Trade in Goods and Services, Annual Revision for 1995."
1996: "U.S. International Trade in Goods and Services, Annual Revision for 1996."
1997: "U.S. International Trade in Goods and Services," FT-900, monthly.

Petroleum Imports

1974-1987: "U.S. Merchandise Trade," FT900, December issues, 1975-1988.
1988: "Report on U.S. Merchandise Trade, 1988 Final Revisions."
1989: "Report on U.S. Merchandise Trade, 1989 Revisions."
1990: "U.S. Merchandise Trade, 1990 Final Report."
1991: "U.S. Merchandise Trade, 1991 Final Report," May 13, 1992, and "U.S. Merchandise Trade, October 1992," December 17, 1992, page 3.
1992: "U.S. Merchandise Trade, 1992 Final Report," May 12, 1993.
1993: "U.S. International Trade in Goods and Services, Annual Revision for 1993."
1994: "U.S. International Trade in Goods and Services, Annual Revision for 1994."
1995: "U.S. International Trade in Goods and Services,

Annual Revision for 1995."
1996: "U.S. International Trade in Goods and Services, Annual Revision for 1996."
1997: "U.S. International Trade in Goods and Services," FT-900, monthly.

Energy Exports and Imports

1974-1987: U.S. merchandise trade press releases and database printouts for adjustments.
1988: January-July, monthly FT-900 supplement, 1989 issues. August-December, monthly FT-900, 1989 issues.
1989: Monthly FT-900, 1990 issues.
1990: "U.S. Merchandise Trade, 1990 Final Report."
1991: "U.S. Merchandise Trade, 1991 Final Report," May 13, 1992, and "U.S. Merchandise Trade, October 1992," December 17, 1992, page 3.
1992: "U.S. Merchandise Trade, 1992 Final Report," May 12, 1993.
1993: "U.S. International Trade in Goods and Services, Annual Revision for 1993."
1994: "U.S. International Trade in Goods and Services, Annual Revision for 1994."
1995: "U.S. International Trade in Goods and Services, Annual Revision for 1995."
1996: "U.S. International Trade in Goods and Services, Annual Revision for 1996."
1997: "U.S. International Trade in Goods and Services," FT-900, monthly.

Energy and Non-Energy Balances

Calculated by the Energy Information Administration.

Total Merchandise

1974-1987: U.S. merchandise trade press releases and database printouts for adjustments.
1988: "Report on U.S. Merchandise Trade, 1988 Final Revisions," August 18, 1989.
1989: "Report on U.S. Merchandise Trade, 1989 Revisions," July 10, 1990.
1990: "U.S. Merchandise Trade, 1990 Final Report," May 10, 1991, and "U.S. Merchandise Trade, December 1992," February 18, 1993, page 3.
1991: "U.S. Merchandise Trade, 1992 Final Report," May 12, 1993.
1992: "U.S. International Trade in Goods and Services, Annual Revision for 1994."
1993-1994: "U.S. International Trade in Goods and Services, Annual Revision for 1995."
1995-1996: "U.S. International Trade in Goods and Services, Annual Revision for 1996."
1997: "U.S. International Trade in Goods and Services," FT-900, monthly.

Sources for Tables 1.11 and 1.12

There are several degree-day databases maintained by the National Oceanic and Atmospheric Administration. The information published here is developed by the National Weather Service Climate Analysis Center, Camp Springs, MD. The data are available weekly with monthly summaries and are based on mean daily temperatures recorded at about 200 major weather stations around the country. The temperature information recorded at those weather stations is used to calculate statewide degree-day averages based on population.

The State figures are then aggregated into Census Divisions and into the national average. The population weights currently used represent resident State population data estimated for 1990 by the U.S. Department of Commerce, Bureau of the Census. The data provided here are available sooner than the Historical Climatology Series 5-1 (heating degree-days) and 5-2 (cooling degree-days) developed by the National Climatic Data Center, Asheville, NC, which compiles data from some 8,000 weather stations.

Section 2. Energy Consumption

U.S. total energy consumption in March 1997 was 7.7 quadrillion Btu. Petroleum products accounted for 38 percent of the energy consumed in March 1997, while natural gas accounted for 29 percent, and coal accounted for 21 percent.

Residential and commercial sector consumption was 2.9 quadrillion Btu in March 1997, down 5 percent from the March 1996 level. The sector accounted for 38 percent of March 1997 total consumption, down 1 percentage point from its 39-percent share in March 1996.

Industrial sector consumption was 2.8 quadrillion Btu in March 1997, down slightly from the March 1996 level. The industrial sector accounted for 36 percent of March 1997 total consumption, up 1 percentage point from its 35-percent share in March 1996.

Transportation sector consumption of energy was 2.0 quadrillion Btu in March 1997, up 1 percent from the March 1996 level. The sector accounted for 26 percent of March 1997 total consumption, about the same share as in March 1996.

Electric utility consumption of energy totaled 2.6 quadrillion Btu in March 1997, down 1 percent from the March 1996 level. Coal contributed 55 percent of the energy consumed by electric utilities in March 1997, while nuclear electric power contributed 21 percent; hydroelectric 14 percent; natural gas 8 percent; petroleum 2 percent; and geothermal, wood, waste, wind, photovoltaic, and solar thermal energy, less than 1 percent.

Table 2.1 Energy Consumption Summary for March 1997

(Quadrillion Btu)

Energy Source	End-Use Sectors				Electric Utilities	Total
	Residential and Commercial	Industrial	Transportation	Total[a]		
Coal	E 0.009	E 0.213	(b)	0.222	1.416	1.638
Natural Gas[c]	E 1.034	E .910	E .072	2.016	.194	2.210
Petroleum Products[d]	.202	.752	1.965	2.919	.046	2.965
Nuclear Electric Power	–	–	–	–	.536	.536
Hydroelectric Power[e]	–	.003	–	.003	.372	.374
Geothermal	–	–	–	–	.009	.009
Net Imports of Coal Coke	–	.002	–	.002	–	.002
Other[f]	–	–	–	–	.002	.002
Primary Consumption	**1.245**	**1.880**	**2.036**	**5.162**	**2.574**	**7.735**
Electricity	.539	.283	.001	.824	–	–
Net Consumption	**1.784**	**2.163**	**2.037**	**5.985**	–	–
Electrical System Energy Losses	1.146	.602	.002	1.750	–	–
Total Consumption	**2.930**	**2.765**	**2.039**	**7.735**	–	–

[a] Totals for coal and natural gas may not equal sum of sectors due to the use of sector-specific conversion factors.

[b] Small amounts of coal consumed for transportation are reported as industrial sector consumption.

[c] Includes supplemental gaseous fuels. Transportation sector is pipeline fuel only.

[d] Products obtained from the processing of crude oil (including lease condensate), natural gas, and other hydrocarbon compounds.

[e] Includes net imports of electricity.

[f] "Other" is electricity generated for distribution from wood, waste, wind, photovoltaic, and solar thermal energy.

– =Not applicable. (s)=Less than +0.5 trillion Btu and greater than -0.5 trillion Btu. E=Estimate

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

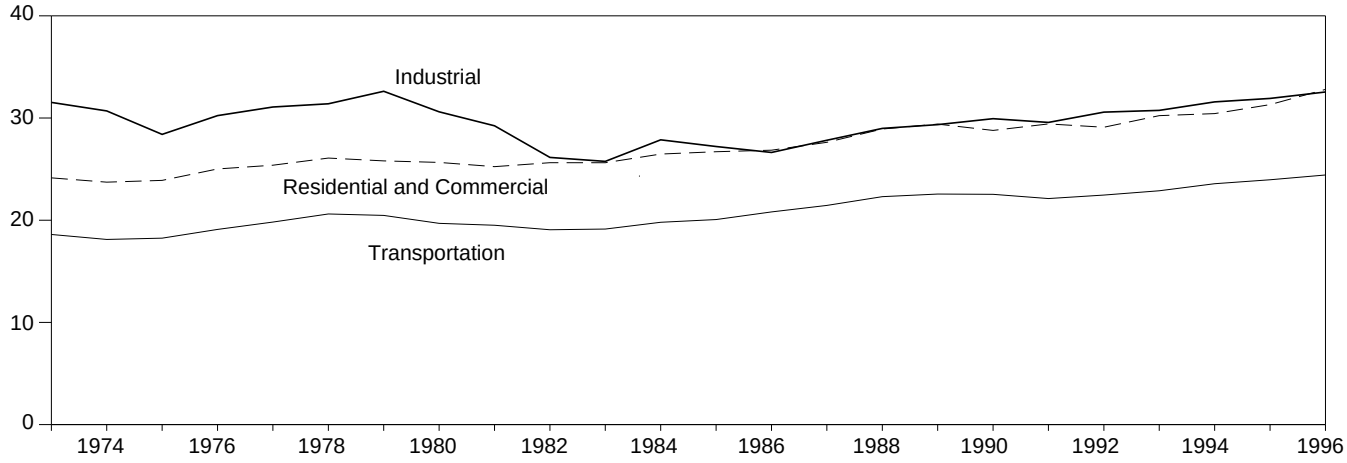
Additional Notes and Sources: See Tables 2.2-2.6 and end of section.

Please Read: Due to a lack of consistent monthly historical data, some renewable energy sources are not included in total consumption. For the full year of 1995, for example, 3.4 quadrillion Btu of renewable energy used by electric utilities to generate electricity for distribution is included, but an estimated 3.3 quadrillion Btu used by residential, commercial, and industrial consumers is not. See Note 12 at the end of section for details.

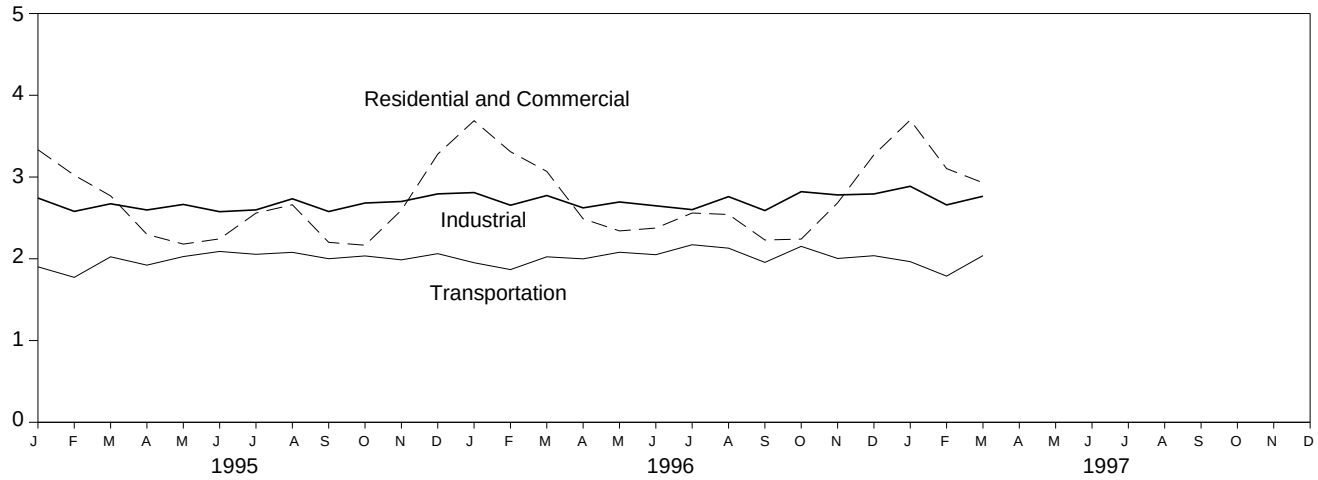
Figure 2.1 Energy Consumption by End-Use Sector

(Quadrillion Btu)

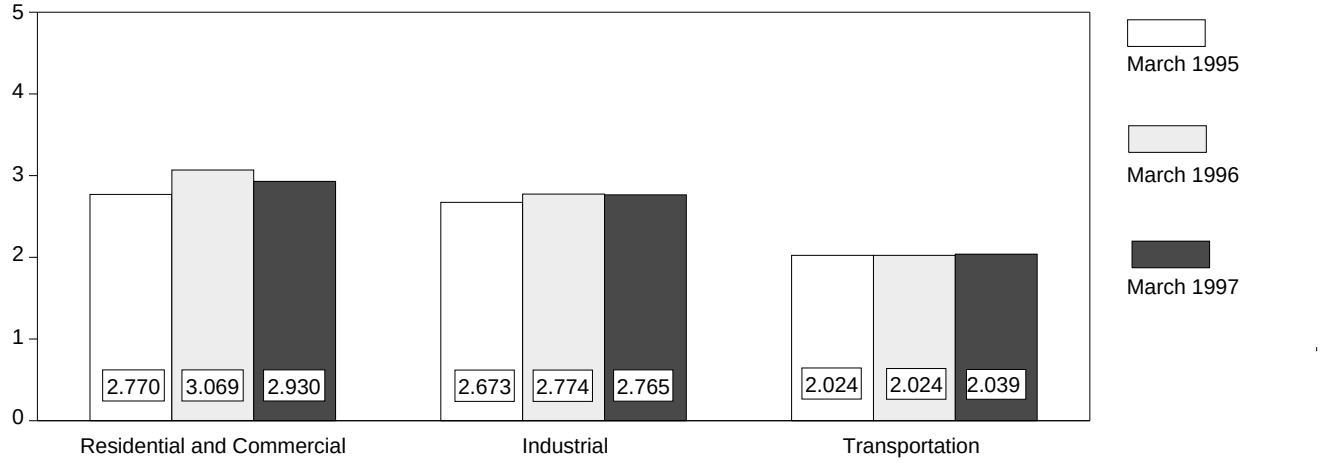
Overview, 1973-1996



Overview, Monthly



Overview, March



Note: Because vertical scales differ, graphs should not be compared.
Source: Table 2.2.

Table 2.2 Energy Consumption by End-Use Sector

(Quadrillion Btu)

	Residential and Commercial		Industrial		Transportation			
	Net	Total	Net	Total	Net	Total	Net	Total
1973 Total	**15.766**	**24.143**	**25.917**	**31.528**	**18.584**	**18.605**	**60.274**	**74.282**
1974 Total	**15.246**	**23.725**	**24.994**	**30.694**	**18.095**	**18.117**	**58.341**	**72.543**
1975 Total	**15.200**	**23.899**	**22.737**	**28.402**	**18.219**	**18.244**	**56.157**	**70.546**
1976 Total	**15.997**	**25.018**	**24.038**	**30.236**	**19.076**	**19.101**	**59.119**	**74.362**
1977 Total	**15.828**	**25.384**	**24.593**	**31.077**	**19.794**	**19.819**	**60.223**	**76.288**
1978 Total	**16.023**	**26.084**	**24.637**	**31.392**	**20.589**	**20.611**	**61.251**	**78.089**
1979 Total	**15.709**	**25.808**	**25.679**	**32.616**	**20.447**	**20.472**	**61.836**	**78.898**
1980 Total	**15.075**	**25.655**	**23.854**	**30.606**	**19.669**	**19.695**	**58.597**	**75.955**
1981 Total	**14.541**	**25.241**	**22.533**	**29.240**	**19.480**	**19.507**	**56.556**	**73.990**
1982 Total	**14.629**	**25.629**	**20.020**	**26.145**	**19.043**	**19.069**	**53.697**	**70.848**
1983 Total	**14.395**	**25.627**	**19.401**	**25.759**	**19.109**	**19.135**	**52.907**	**70.524**
1984 Total	**14.964**	**26.474**	**21.184**	**27.867**	**19.773**	**19.801**	**55.923**	**74.144**
1985 Total	**14.839**	**26.704**	**20.520**	**27.214**	**20.036**	**20.067**	**55.391**	**73.981**
1986 Total	**14.791**	**26.852**	**20.101**	**26.630**	**20.781**	**20.812**	**55.676**	**74.297**
1987 Total	**15.146**	**27.623**	**21.116**	**27.826**	**21.419**	**21.448**	**57.678**	**76.894**
1988 Total	**16.004**	**28.925**	**22.085**	**28.986**	**22.274**	**22.305**	**60.366**	**80.218**
1989 Total	**16.261**	**29.404**	**22.272**	**29.353**	**22.530**	**22.561**	**61.070**	**81.325**
1990 Total	**15.568**	**28.786**	**22.841**	**29.936**	**22.504**	**22.535**	**60.921**	**81.265**
1991 Total	**15.985**	**29.424**	**22.549**	**29.570**	**22.091**	**22.121**	**60.626**	**81.116**
1992 Total	**16.089**	**29.099**	**23.498**	**30.577**	**22.432**	**22.462**	**62.025**	**82.144**
1993 Total	**16.736**	**30.233**	**23.739**	**30.749**	**22.857**	**22.884**	**63.327**	**83.863**
1994 Total	**16.760**	**30.433**	**24.414**	**31.581**	**23.544**	**23.573**	**64.719**	**85.587**
1995 January	2.117	3.334	2.168	2.743	1.899	1.902	6.185	7.979
February	1.973	3.022	2.059	2.580	1.771	1.773	5.801	7.374
March	1.697	2.770	2.092	2.673	2.022	2.024	5.809	7.465
April	1.332	2.298	2.031	2.597	1.920	1.922	5.280	6.815
May	1.110	2.180	2.033	2.665	2.025	2.027	5.167	6.871
June	1.039	2.244	1.944	2.576	2.088	2.090	5.073	6.912
July	1.077	2.559	1.938	2.598	2.052	2.055	5.072	7.216
August	1.115	2.661	2.063	2.734	2.076	2.079	5.260	7.479
September	1.051	2.201	2.027	2.578	1.999	2.001	5.078	6.780
October	1.098	2.166	2.089	2.682	2.032	2.035	5.219	6.882
November	1.519	2.595	2.117	2.701	1.985	1.987	5.620	7.282
December	2.034	3.280	2.189	2.794	2.061	2.063	6.285	8.138
Total	**17.162**	**31.310**	**24.749**	**31.918**	**23.933**	**23.960**	**65.850**	**87.193**
1996 January	R 2.360	R 3.689	R 2.238	R 2.810	1.950	1.952	R 6.551	R 8.453
February	R 2.142	R 3.310	2.110	2.655	1.866	1.868	R 6.120	R 7.834
March	R 1.906	R 3.069	R 2.183	R 2.774	2.022	R 2.024	R 6.112	R 7.868
April	R 1.459	R 2.489	R 2.062	R 2.623	1.997	1.999	R 5.517	R 7.110
May	1.163	2.341	R 2.040	R 2.695	2.077	2.080	R 5.281	R 7.116
June	1.076	2.376	R 2.010	R 2.648	2.047	2.050	R 5.137	R 7.077
July	R 1.094	R 2.560	1.955	R 2.601	2.169	2.172	R 5.224	R 7.337
August	R 1.093	R 2.542	2.111	2.760	R 2.127	2.130	R 5.337	R 7.438
September	1.050	2.230	R 2.020	R 2.590	1.954	1.956	R 5.027	R 6.779
October	1.146	2.241	2.212	2.821	2.150	2.152	5.511	7.217
November	R 1.556	R 2.684	R 2.175	R 2.781	2.002	2.004	R 5.736	R 7.471
December	R 2.013	R 3.272	R 2.191	R 2.793	2.036	2.038	R 6.243	R 8.106
Total	**R 18.058**	**R 32.802**	**25.308**	**32.549**	**R 24.397**	**24.426**	**R 67.795**	**R 89.808**
1997 January	R 2.348	R 3.697	R 2.289	R 2.887	1.963	1.965	R 6.604	R 8.553
February	R 2.019	3.103	R 2.131	R 2.659	R 1.786	R 1.788	R 5.939	R 7.552
March	1.784	2.930	2.163	2.765	2.037	2.039	5.985	7.735
3-Month Total	**6.152**	**9.730**	**6.584**	**8.311**	**5.785**	**5.792**	**18.528**	**23.840**
1996 3-Month Total	**6.408**	**10.067**	**6.532**	**8.239**	**5.838**	**5.845**	**18.783**	**24.156**
1995 3-Month Total	**5.786**	**9.126**	**6.319**	**7.997**	**5.692**	**5.698**	**17.795**	**22.818**

R=Revised data.

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

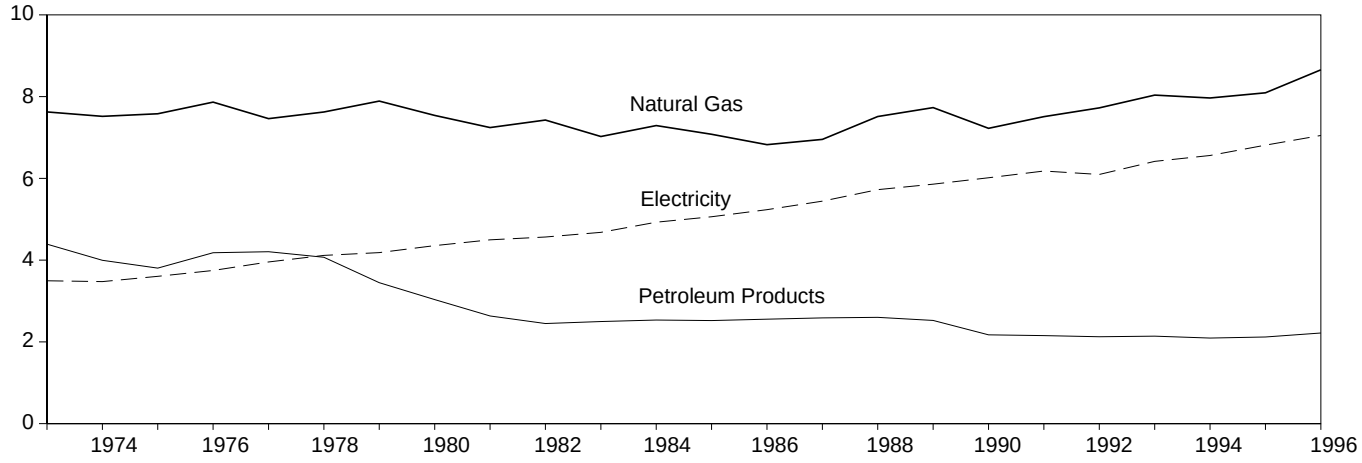
Additional Notes and Sources: See end of section.

Please Read: Due to a lack of consistent monthly historical data, some renewable energy sources are not included in total consumption. In 1995, for example, 3.4 quadrillion Btu of renewable energy used by electric utilities to generate electricity for distribution is included, but an estimated 3.3 quadrillion Btu used by residential, commercial, and industrial consumers is not. See Note 12 at the end of section for details.

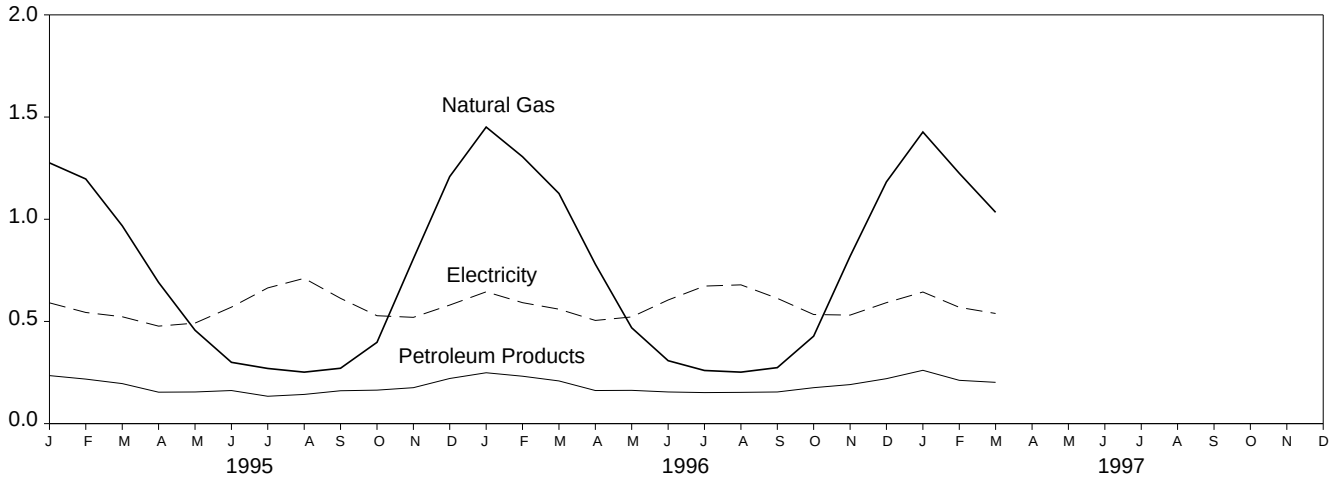
Figure 2.2 Residential and Commercial Energy Consumption

(Quadrillion Btu)

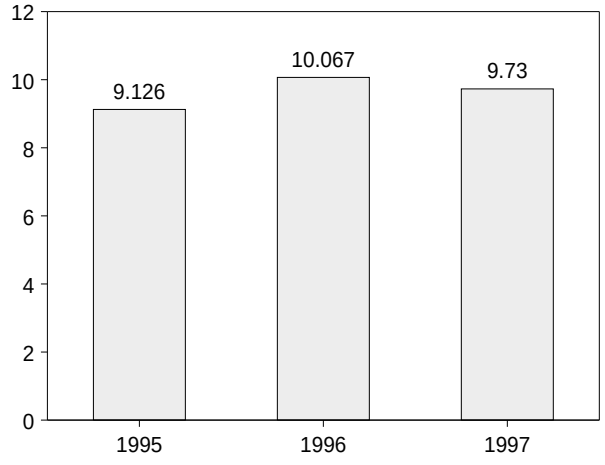
By Major Sources, 1973-1996



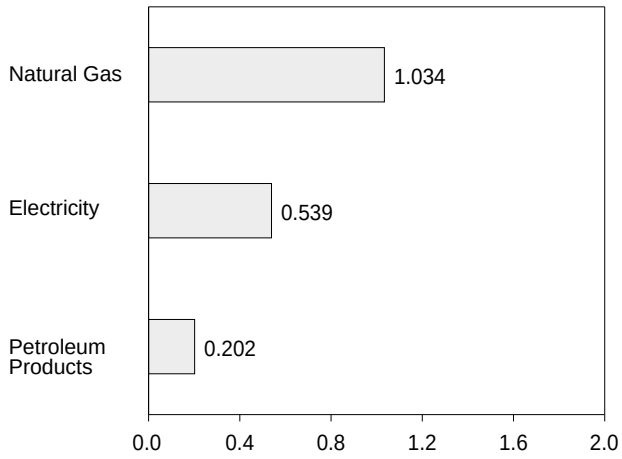
By Major Sources, Monthly



Total, January-March



By Major Sources, March 1997



Note: Because vertical scales differ, graphs should not be compared.
Source: Table 2.3.

Table 2.3 Residential and Commercial Energy Consumption

(Quadrillion Btu)

	Coal	Natural Gas[a]	Petroleum Products[b]	Primary Consumption	Electricity	Net Consumption	Electrical System Energy Losses	Total Consumption
1973 Total	**0.254**	**7.626**	**4.391**	**12.270**	**3.495**	**15.766**	**8.377**	**24.143**
1974 Total	**.257**	**7.518**	**3.996**	**11.771**	**3.475**	**15.246**	**8.480**	**23.725**
1975 Total	**.209**	**7.581**	**3.805**	**11.595**	**3.604**	**15.200**	**8.700**	**23.899**
1976 Total	**.203**	**7.866**	**4.181**	**12.250**	**3.747**	**15.997**	**9.021**	**25.018**
1977 Total	**.205**	**7.461**	**4.206**	**11.873**	**3.955**	**15.828**	**9.556**	**25.384**
1978 Total	**.214**	**7.624**	**4.070**	**11.908**	**4.116**	**16.023**	**10.061**	**26.084**
1979 Total	**.187**	**7.891**	**3.448**	**11.525**	**4.184**	**15.709**	**10.100**	**25.808**
1980 Total	**.145**	**7.540**	**3.035**	**10.721**	**4.355**	**15.075**	**10.580**	**25.655**
1981 Total	**.167**	**7.243**	**2.634**	**10.043**	**4.497**	**14.541**	**10.700**	**25.241**
1982 Total	**.187**	**7.427**	**2.449**	**10.063**	**4.566**	**14.629**	**11.000**	**25.629**
1983 Total	**.192**	**7.024**	**2.498**	**9.715**	**4.680**	**14.395**	**11.232**	**25.627**
1984 Total	**.209**	**7.292**	**2.535**	**10.036**	**4.928**	**14.964**	**11.510**	**26.474**
1985 Total	**.176**	**7.079**	**2.522**	**9.777**	**5.061**	**14.839**	**11.865**	**26.704**
1986 Total	**.176**	**6.825**	**2.555**	**9.556**	**5.235**	**14.791**	**12.061**	**26.852**
1987 Total	**.162**	**6.954**	**2.587**	**9.703**	**5.443**	**15.146**	**12.477**	**27.623**
1988 Total	**.168**	**7.513**	**2.600**	**10.280**	**5.724**	**16.004**	**12.920**	**28.925**
1989 Total	**.146**	**7.731**	**2.525**	**10.402**	**5.859**	**16.261**	**13.143**	**29.404**
1990 Total	**.156**	**7.224**	**2.173**	**9.553**	**6.015**	**15.568**	**13.218**	**28.786**
1991 Total	**.141**	**7.510**	**2.154**	**9.805**	**6.180**	**15.985**	**13.439**	**29.424**
1992 Total	**.142**	**7.725**	**2.126**	**9.993**	**6.096**	**16.089**	**13.010**	**29.099**
1993 Total	**.143**	**8.037**	**2.140**	**10.320**	**6.416**	**16.736**	**13.497**	**30.233**
1994 Total	**.139**	**7.967**	**2.094**	**10.200**	**6.560**	**16.760**	**13.673**	**30.433**
1995 January	.015	1.276	.235	1.526	.591	2.117	1.217	3.334
February	.013	1.197	.218	1.428	.544	1.973	1.049	3.022
March	.010	.968	.196	1.174	.523	1.697	1.073	2.770
April	.010	.691	.154	.855	.477	1.332	.966	2.298
May	.007	.457	.155	.618	.492	1.110	1.070	2.180
June	.007	.300	.162	.469	.570	1.039	1.205	2.244
July	.009	.270	.134	.414	.664	1.077	1.481	2.559
August	.009	.252	.143	.404	.711	1.115	1.546	2.661
September	.006	.271	.161	.438	.613	1.051	1.150	2.201
October	.008	.398	.164	.570	.528	1.098	1.068	2.166
November	.017	.807	.176	.999	.520	1.519	1.076	2.595
December	.024	1.209	.221	1.454	.580	2.034	1.246	3.280
Total	**.135**	**8.094**	**2.120**	**10.349**	**6.813**	**17.162**	**14.148**	**31.310**
1996 January	.016	R 1.451	.249	R 1.715	.645	R 2.360	1.328	R 3.689
February	.013	R 1.306	.232	R 1.551	.592	R 2.142	1.167	R 3.310
March	.012	R 1.126	.209	R 1.346	.560	R 1.906	1.163	R 3.069
April	.011	R .780	.162	R .953	.505	R 1.459	1.031	R 2.489
May	.009	.469	.163	.641	.522	1.163	1.178	2.341
June	.007	R .308	.155	.471	.605	1.076	1.300	2.376
July	.010	R .260	.152	R .421	.673	R 1.094	1.465	R 2.560
August	.010	.252	.153	R .414	.679	R 1.093	1.449	R 2.542
September	.007	R .274	.155	R .437	.613	1.050	1.180	2.230
October	.008	.428	.176	.612	.534	1.146	1.095	2.241
November	.015	R .819	.191	R 1.025	.531	R 1.556	1.128	R 2.684
December	.018	R 1.183	.220	R 1.421	.592	R 2.013	1.259	R 3.272
Total	**.135**	R **8.656**	**2.217**	R **11.008**	**7.050**	R **18.058**	**14.744**	R **32.802**
1997 January	E .016	R 1.427	.261	R 1.704	.644	R 2.348	1.349	R 3.697
February	E .012	R 1.225	.212	R 1.450	.569	R 2.019	1.083	3.103
March	E .009	E 1.034	.202	1.245	.539	1.784	1.146	2.930
3-Month Total	E **.037**	E **3.686**	**.676**	**4.399**	**1.753**	**6.152**	**3.578**	**9.730**
1996 3-Month Total	**.040**	**3.882**	**.689**	**4.611**	**1.797**	**6.408**	**3.659**	**10.067**
1995 3-Month Total	**.038**	**3.441**	**.650**	**4.129**	**1.658**	**5.786**	**3.340**	**9.126**

[a] Includes supplemental gaseous fuels.

[b] Products obtained from the processing of crude oil (including lease condensate), natural gas, and other hydrocarbon compounds.

R=Revised data. E=Estimate.

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

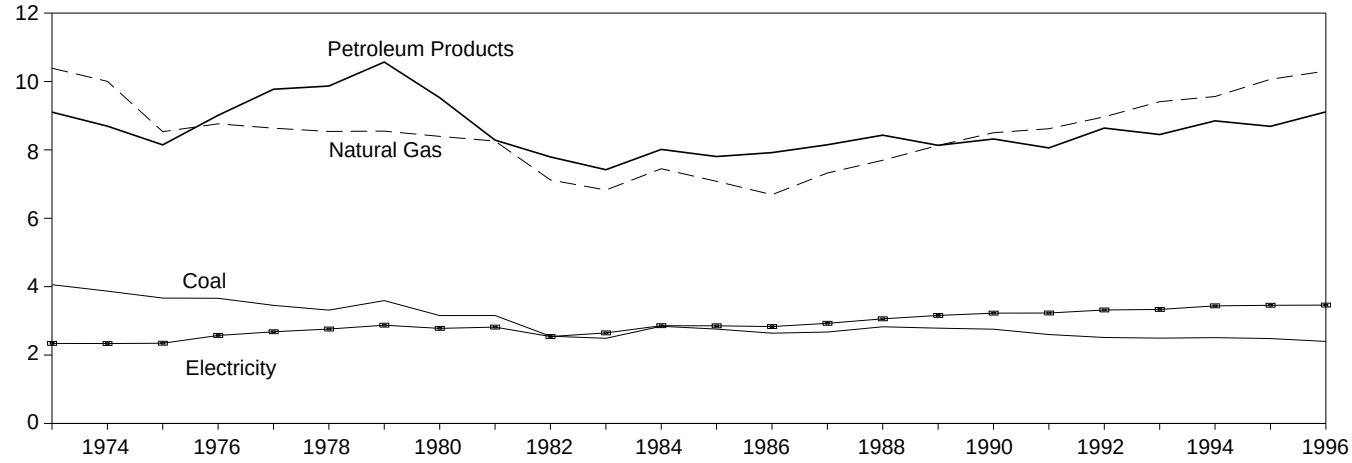
Additional Notes and Sources: See end of section.

Please Read: Due to a lack of consistent monthly historical data, some renewable energy sources are not included in this table. In 1995, for example, an estimated 0.7 quadrillion Btu of renewable energy used by the residential and commercial sectors (primarily the residential sector) is not included. See Note 12 at the end of section for details.

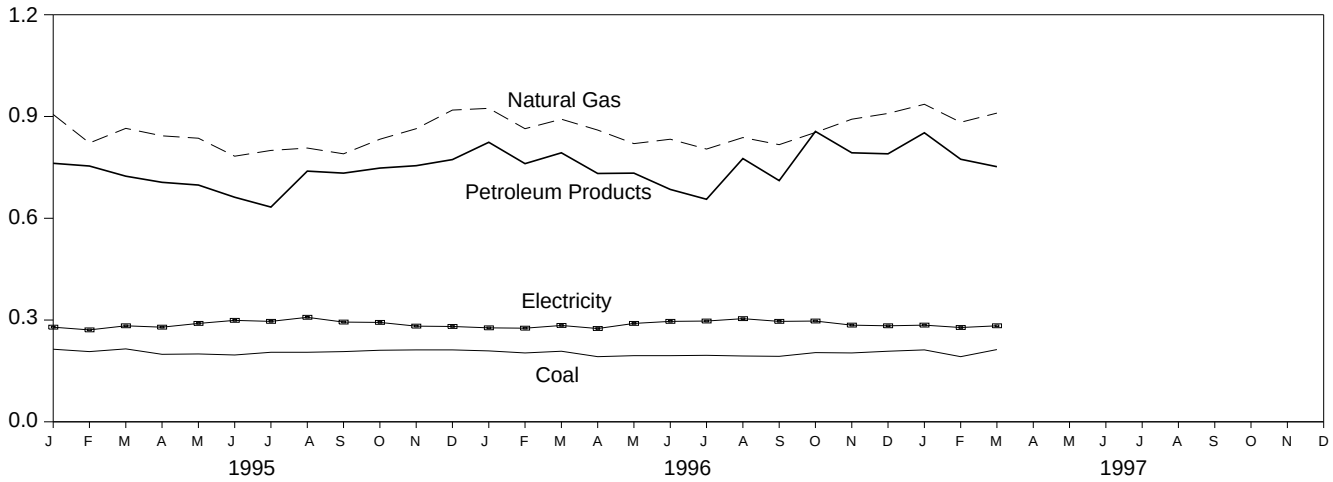
Figure 2.3 Industrial Energy Consumption

(Quadrillion Btu)

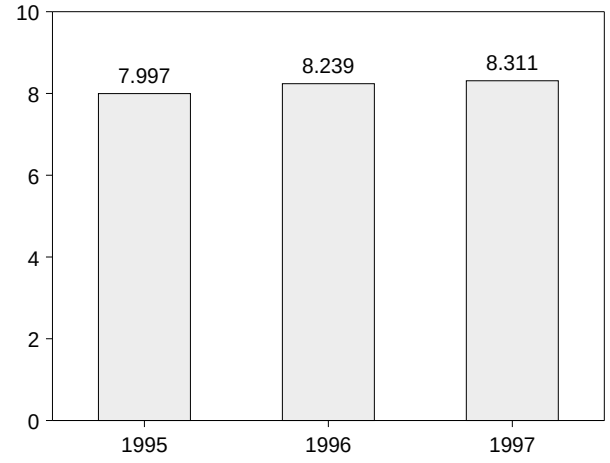
By Major Sources, 1973-1996



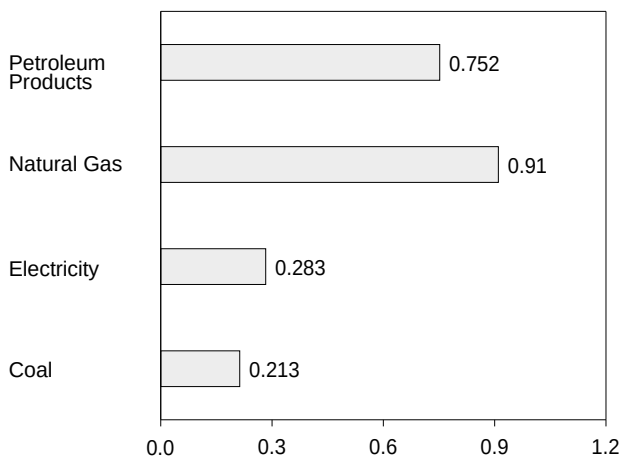
By Major Sources, Monthly



Total, January-March



By Major Sources, March 1997



Note: Because vertical scales differ, graphs should not be compared.
Source: Table 2.4.

Table 2.4 Industrial Energy Consumption

(Quadrillion Btu)

	Coal	Natural Gas[a]	Petroleum Products[b]	Hydro-electric Power	Net Imports of Coal Coke	Primary Consumption	Electricity	Net Consumption	Electrical System Energy Losses	Total Consumption
1973 Total	**4.057**	**10.388**	**9.104**	**0.035**	**-0.007**	**23.576**	**2.341**	**25.917**	**5.611**	**31.528**
1974 Total	**3.870**	**10.004**	**8.694**	**.033**	**.056**	**22.657**	**2.337**	**24.994**	**5.700**	**30.694**
1975 Total	**3.667**	**8.532**	**8.146**	**.032**	**.014**	**20.391**	**2.346**	**22.737**	**5.665**	**28.402**
1976 Total	**3.661**	**8.762**	**9.010**	**.033**	**(s)**	**21.465**	**2.573**	**24.038**	**6.198**	**30.236**
1977 Total	**3.454**	**8.635**	**9.774**	**.033**	**.015**	**21.911**	**2.682**	**24.593**	**6.484**	**31.077**
1978 Total	**3.314**	**8.539**	**9.867**	**.032**	**.125**	**21.876**	**2.761**	**24.637**	**6.755**	**31.392**
1979 Total	**3.593**	**8.549**	**10.568**	**.034**	**.063**	**22.807**	**2.873**	**25.679**	**6.936**	**32.616**
1980 Total	**3.155**	**8.395**	**9.525**	**.033**	**-.035**	**21.073**	**2.781**	**23.854**	**6.752**	**30.606**
1981 Total	**3.157**	**8.257**	**8.285**	**.033**	**-.016**	**19.715**	**2.817**	**22.533**	**6.707**	**29.240**
1982 Total	**2.552**	**7.121**	**7.794**	**.033**	**-.022**	**17.479**	**2.542**	**20.020**	**6.125**	**26.145**
1983 Total	**2.490**	**6.826**	**7.420**	**.033**	**-.016**	**16.753**	**2.648**	**19.401**	**6.359**	**25.759**
1984 Total	**2.842**	**7.448**	**8.014**	**.033**	**-.011**	**18.325**	**2.859**	**21.184**	**6.683**	**27.867**
1985 Total	**2.760**	**7.080**	**7.805**	**.033**	**-.013**	**17.665**	**2.855**	**20.520**	**6.694**	**27.214**
1986 Total	**2.640**	**6.690**	**7.920**	**.033**	**-.017**	**17.267**	**2.834**	**20.101**	**6.529**	**26.630**
1987 Total	**2.673**	**7.323**	**8.150**	**.033**	**.009**	**18.188**	**2.928**	**21.116**	**6.710**	**27.826**
1988 Total	**2.828**	**7.696**	**8.430**	**.033**	**.040**	**19.026**	**3.059**	**22.085**	**6.901**	**28.986**
1989 Total	**2.787**	**8.131**	**8.133**	**.033**	**.030**	**19.113**	**3.158**	**22.272**	**7.082**	**29.353**
1990 Total	**2.756**	**8.502**	**8.319**	**.033**	**.005**	**19.615**	**3.226**	**22.841**	**7.095**	**29.936**
1991 Total	**2.601**	**8.619**	**8.057**	**.033**	**.009**	**19.319**	**3.230**	**22.549**	**7.021**	**29.570**
1992 Total	**2.515**	**8.967**	**8.638**	**.033**	**.027**	**20.180**	**3.319**	**23.498**	**7.079**	**30.577**
1993 Total	**2.496**	**9.410**	**8.449**	**.032**	**.017**	**20.405**	**3.334**	**23.739**	**7.010**	**30.749**
1994 Total	**2.510**	**9.560**	**8.849**	**.032**	**.024**	**20.975**	**3.439**	**24.414**	**7.167**	**31.581**
1995 January	.214	.906	.762	.003	.004	1.889	.279	2.168	.575	2.743
February	.207	.822	.754	.003	.002	1.788	.271	2.059	.522	2.580
March	.215	.865	.724	.003	.003	1.809	.283	2.092	.581	2.673
April	.199	.843	.706	.003	.001	1.752	.279	2.031	.566	2.597
May	.200	.836	.698	.003	.004	1.743	.290	2.033	.631	2.665
June	.197	.783	.662	.003	.001	1.645	.299	1.944	.632	2.576
July	.205	.800	.633	.003	.002	1.642	.296	1.938	.660	2.598
August	.205	.807	.739	.002	.001	1.755	.308	2.063	.670	2.734
September	.207	.790	.733	.002	.002	1.734	.294	2.027	.551	2.578
October	.211	.833	.748	.002	.003	1.796	.293	2.089	.593	2.682
November	.212	.864	.755	.002	.002	1.835	.282	2.117	.583	2.701
December	.212	.919	.773	.002	.002	1.908	.281	2.189	.604	2.794
Total	**2.483**	**10.064**	**8.688**	**.033**	**.026**	**21.294**	**3.455**	**24.749**	**7.168**	**31.918**
1996 January	R .209	R .924	.824	.003	.001	R 1.961	.277	R 2.238	.571	R 2.810
February	R .203	R .864	.761	.003	.003	R 1.834	.276	2.110	.545	2.655
March	R .208	.892	.793	.003	.003	R 1.899	.284	R 2.183	.591	R 2.774
April	R .192	.860	.732	.003	-.001	R 1.787	.275	R 2.062	.561	R 2.623
May	R .195	.820	.733	.003	-.001	R 1.750	.290	R 2.040	.655	R 2.695
June	R .195	.833	.685	.003	-.002	R 1.714	.296	R 2.010	.637	R 2.648
July	R .196	.804	.656	.003	(s)	1.658	.297	1.955	.646	R 2.601
August	.194	.838	.776	.002	-.003	1.807	.304	2.111	.649	2.760
September	.193	R .817	.711	.002	(s)	R 1.724	.296	R 2.020	.570	R 2.590
October	.204	.853	.856	.002	(s)	1.915	.297	2.212	.608	2.821
November	.203	R .892	.793	.002	(s)	R 1.890	.285	R 2.175	.606	R 2.781
December	.208	R .909	.790	.002	-.001	R 1.908	.283	R 2.191	.602	R 2.793
Total	R **2.399**	R **10.305**	**9.111**	**.033**	**(s)**	**21.847**	**3.461**	**25.308**	**7.241**	**32.549**
1997 January	E .212	R .936	.852	.003	.002	R 2.004	.285	R 2.289	.597	R 2.887
February	E .192	R .883	.774	.003	.002	R 1.854	.278	R 2.131	.528	R 2.659
March	E .213	E .910	.752	.003	.002	1.880	.283	2.163	.602	2.765
3-Month Total	E **.617**	E **2.729**	**2.378**	**.008**	**.005**	**5.738**	**.846**	**6.584**	**1.727**	**8.311**
1996 3-Month Total	**.620**	**2.680**	**2.378**	**.008**	**.007**	**5.694**	**.838**	**6.532**	**1.707**	**8.239**
1995 3-Month Total	**.636**	**2.593**	**2.240**	**.008**	**.009**	**5.487**	**.833**	**6.319**	**1.677**	**7.997**

[a] Includes supplemental gaseous fuels.

[b] Products obtained from the processing of crude oil (including lease condensate), natural gas, and other hydrocarbon compounds.

R=Revised data. E=Estimate. (s)=Less than +0.5 trillion Btu and greater than -0.5 trillion Btu.

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

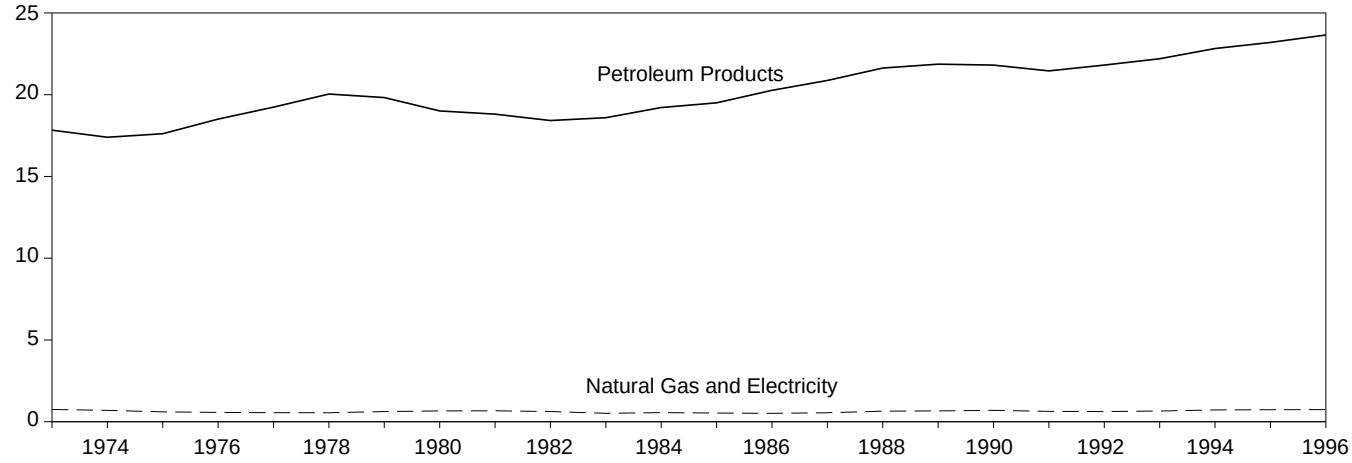
Additional Notes and Sources: See end of section.

Please Read: Due to a lack of consistent monthly historical data, some renewable energy sources are not included in this table. In 1995, for example, an estimated 2.6 quadrillion Btu of renewable energy used by the industrial sector (primarily the pulp and paper industry) is not included. See Note 12 at the end of section for details.

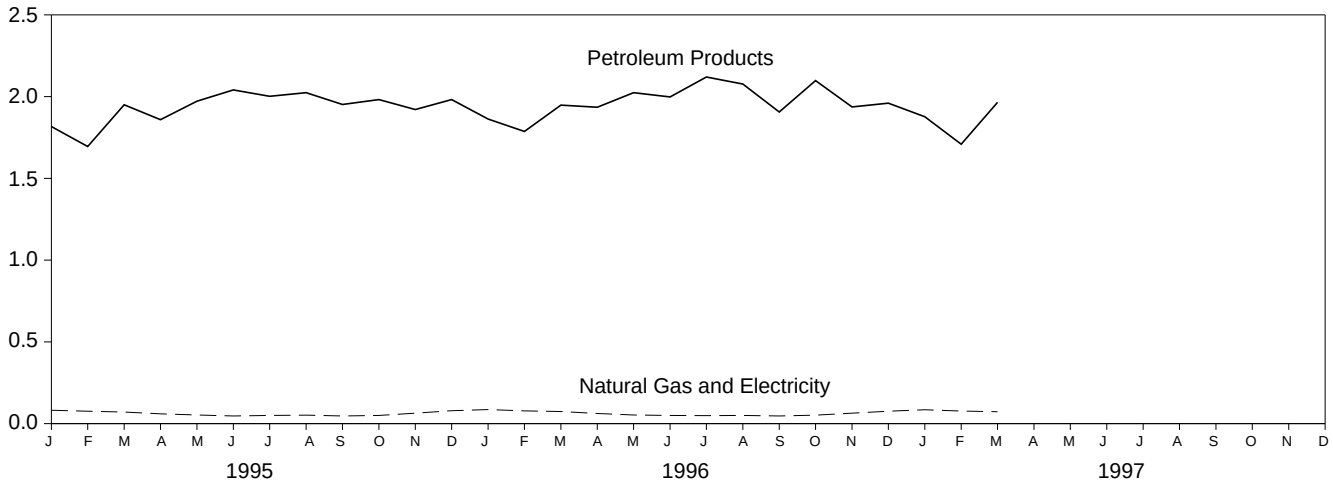
Figure 2.4 Transportation Energy Consumption

(Quadrillion Btu)

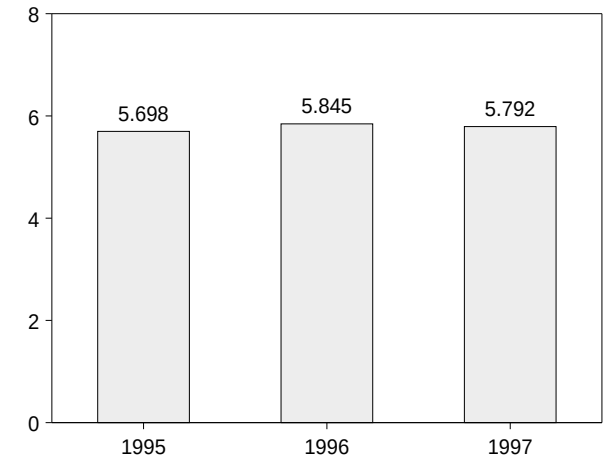
By Major Sources, 1973-1996



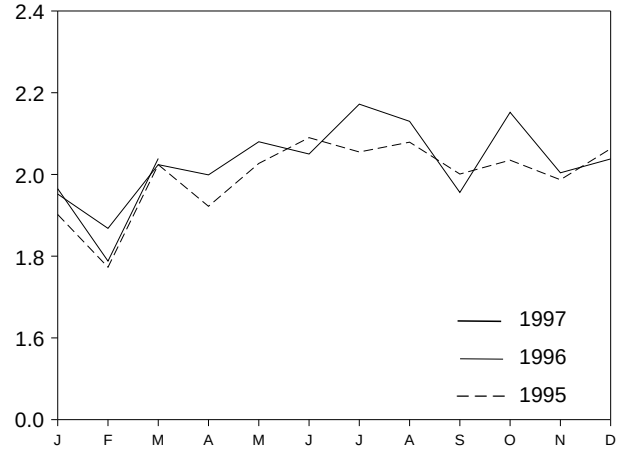
By Major Sources, Monthly



Total, January-March



Total, Monthly



Note: Because vertical scales differ, graphs should not be compared.
Source: Table 2.5.

Table 2.5 Transportation Energy Consumption

(Quadrillion Btu)

	Coal	Natural Gas[a]	Petroleum Products[b]	Primary Consumption	Electricity	Net Consumption	Electrical System Energy Losses	Total Consumption[c]
1973 Total	**0.003**	**0.743**	**17.831**	**18.576**	**0.008**	**18.584**	**0.020**	**18.605**
1974 Total	**.002**	**.685**	**17.399**	**18.086**	**.009**	**18.095**	**.022**	**18.117**
1975 Total	**.001**	**.595**	**17.614**	**18.209**	**.010**	**18.219**	**.025**	**18.244**
1976 Total	(s)	**.559**	**18.506**	**19.065**	**.010**	**19.076**	**.025**	**19.101**
1977 Total	(s)	**.543**	**19.241**	**19.784**	**.010**	**19.794**	**.025**	**19.819**
1978 Total	**([d])**	**.539**	**20.041**	**20.580**	**.009**	**20.589**	**.022**	**20.611**
1979 Total	**([d])**	**.612**	**19.825**	**20.436**	**.010**	**20.447**	**.025**	**20.472**
1980 Total	**([d])**	**.650**	**19.008**	**19.658**	**.011**	**19.669**	**.026**	**19.695**
1981 Total	**([d])**	**.658**	**18.811**	**19.469**	**.011**	**19.480**	**.026**	**19.507**
1982 Total	**([d])**	**.612**	**18.420**	**19.032**	**.011**	**19.043**	**.026**	**19.069**
1983 Total	**([d])**	**.505**	**18.593**	**19.098**	**.011**	**19.109**	**.026**	**19.135**
1984 Total	**([d])**	**.545**	**19.216**	**19.761**	**.012**	**19.773**	**.028**	**19.801**
1985 Total	**([d])**	**.519**	**19.504**	**20.024**	**.013**	**20.036**	**.030**	**20.067**
1986 Total	**([d])**	**.499**	**20.269**	**20.768**	**.013**	**20.781**	**.031**	**20.812**
1987 Total	**([d])**	**.535**	**20.871**	**21.406**	**.013**	**21.419**	**.029**	**21.448**
1988 Total	**([d])**	**.632**	**21.629**	**22.260**	**.014**	**22.274**	**.031**	**22.305**
1989 Total	**([d])**	**.649**	**21.868**	**22.517**	**.014**	**22.530**	**.031**	**22.561**
1990 Total	**([d])**	**.680**	**21.810**	**22.490**	**.014**	**22.504**	**.031**	**22.535**
1991 Total	**([d])**	**.620**	**21.456**	**22.077**	**.014**	**22.091**	**.030**	**22.121**
1992 Total	**([d])**	**.606**	**21.812**	**22.419**	**.014**	**22.432**	**.029**	**22.462**
1993 Total	**([d])**	**.643**	**22.201**	**22.843**	**.013**	**22.857**	**.028**	**22.884**
1994 Total	**([d])**	**.707**	**22.824**	**23.531**	**.014**	**23.544**	**.028**	**23.573**
1995 January	([d])	.081	1.817	1.898	.001	1.899	.002	1.902
February	([d])	.075	1.695	1.770	.001	1.771	.002	1.773
March	([d])	.070	1.950	2.021	.001	2.022	.002	2.024
April	([d])	.059	1.859	1.919	.001	1.920	.002	1.922
May	([d])	.052	1.972	2.024	.001	2.025	.002	2.027
June	([d])	.046	2.041	2.087	.001	2.088	.002	2.090
July	([d])	.049	2.002	2.051	.001	2.052	.003	2.055
August	([d])	.051	2.024	2.075	.001	2.076	.003	2.079
September	([d])	.046	1.952	1.998	.001	1.999	.002	2.001
October	([d])	.049	1.982	2.031	.001	2.032	.002	2.035
November	([d])	.063	1.921	1.984	.001	1.985	.002	1.987
December	([d])	.078	1.982	2.060	.001	2.061	.002	2.063
Total	**([d])**	**.722**	**23.197**	**23.919**	**.013**	**23.933**	**.027**	**23.960**
1996 January	([d])	[R] .085	1.863	1.949	.001	1.950	.002	1.952
February	([d])	[R] .077	1.787	1.865	.001	1.866	.002	1.868
March	([d])	.073	1.948	2.021	.001	2.022	.002	[R] 2.024
April	([d])	.061	1.935	1.996	.001	1.997	.002	1.999
May	([d])	.052	2.024	2.076	.001	2.077	.003	2.080
June	([d])	.049	1.998	2.046	.001	2.047	.002	2.050
July	([d])	.048	2.120	2.168	.001	2.169	.003	2.172
August	([d])	.049	2.077	2.126	.001	[R] 2.127	.003	2.130
September	([d])	.046	1.906	[R] 1.953	.001	1.954	.002	1.956
October	([d])	.051	2.098	2.149	.001	2.150	.002	2.152
November	([d])	.063	1.937	2.001	.001	2.002	.002	2.004
December	([d])	.075	1.960	2.035	.001	2.036	.002	2.038
Total	**([d])**	**.730**	**23.653**	**24.384**	**.014**	[R] **24.397**	**.029**	**24.426**
1997 January	([d])	.084	1.877	[R] 1.961	.001	1.963	.002	1.965
February	([d])	[R] .076	1.709	[R] 1.785	.001	[R] 1.786	.002	[R] 1.788
March	([d])	[E] .072	1.965	2.036	.001	2.037	.002	2.039
3-Month Total	**([d])**	[E] **.231**	**5.551**	**5.782**	**.003**	**5.785**	**.007**	**5.792**
1996 3-Month Total	**([d])**	**.236**	**5.599**	**5.835**	**.003**	**5.838**	**.007**	**5.845**
1995 3-Month Total	**([d])**	**.226**	**5.462**	**5.689**	**.003**	**5.692**	**.006**	**5.698**

[a] Natural gas consumed in the operation of pipelines (primarily in compressors) and small amounts consumed as vehicle fuel. See Table 4.4.

[b] Products obtained from the processing of crude oil (including lease condensate), natural gas, and other hydrocarbon compounds.

[c] Due to a lack of consistent historical data, some renewable energy sources are not included. For example, in 1992, an estimated 0.1 quadrillion Btu of renewable energy consumed by the U.S. transportation sector is not included.

[d] Since 1978, the small amounts of coal consumed for transportation are reported as industrial sector consumption.

R=Revised data. E=Estimate. (s)=Less than 0.5 trillion Btu.

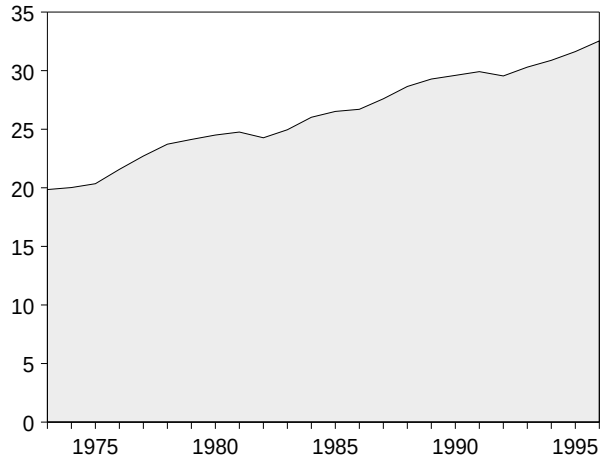
Notes: • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Additional Notes and Sources: See end of section.

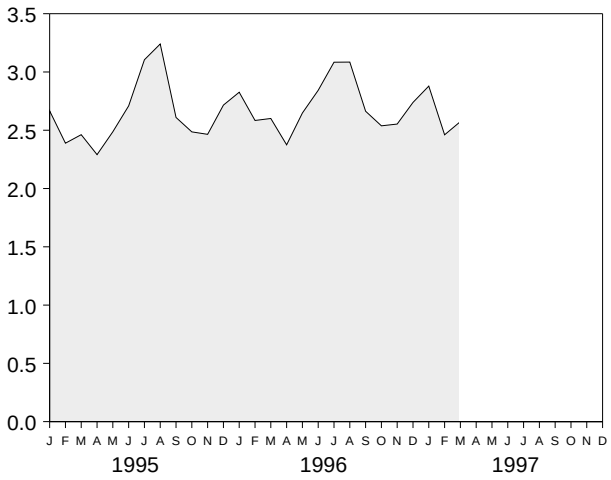
Figure 2.5 Energy Input at Electric Utilities

(Quadrillion Btu)

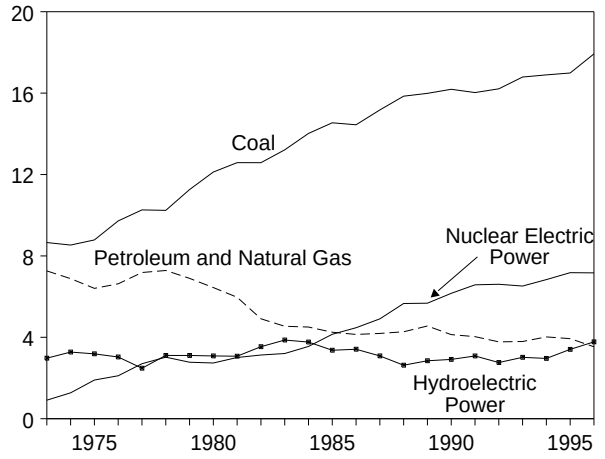
Total, 1973-1996



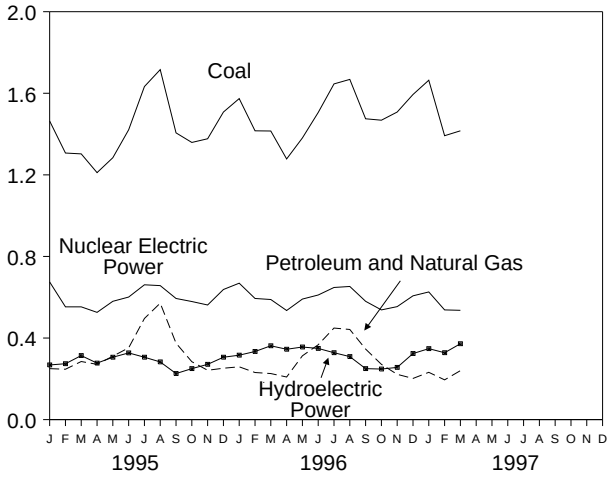
Total, Monthly



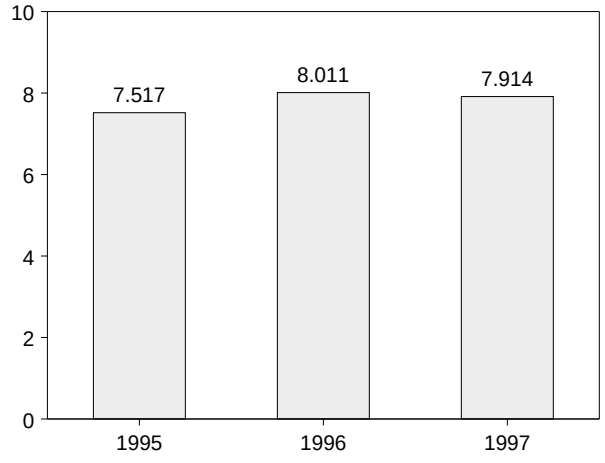
By Major Sources, 1973-1996



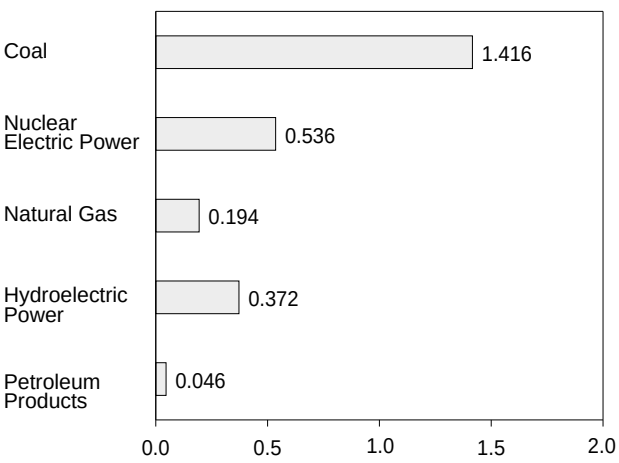
By Major Sources, Monthly



Total, January-March



By Major Sources, March 1997



Note: Because vertical scales differ, graphs should not be compared.
Source: Table 2.6.

Table 2.6 Energy Input at Electric Utilities

(Quadrillion Btu)

	Coal	Natural Gas[a]	Petroleum Products[b]	Nuclear Electric Power	Hydro-electric Power[c]	Geothermal Energy	Other[d]	Total
1973 Total	**8.658**	**3.748**	**3.515**	**0.910**	**2.975**	**0.043**	**0.003**	**19.852**
1974 Total	**8.534**	**3.519**	**3.365**	**1.272**	**3.276**	**.053**	**.003**	**20.022**
1975 Total	**8.786**	**3.240**	**3.166**	**1.900**	**3.187**	**.070**	**.002**	**20.350**
1976 Total	**9.720**	**3.152**	**3.477**	**2.111**	**3.032**	**.078**	**.003**	**21.574**
1977 Total	**10.262**	**3.284**	**3.901**	**2.702**	**2.482**	**.077**	**.005**	**22.713**
1978 Total	**10.238**	**3.297**	**3.987**	**3.024**	**3.110**	**.064**	**.003**	**23.724**
1979 Total	**11.260**	**3.613**	**3.283**	**2.776**	**3.107**	**.084**	**.005**	**24.128**
1980 Total	**12.123**	**3.810**	**2.634**	**2.739**	**3.085**	**.110**	**.005**	**24.505**
1981 Total	**12.583**	**3.768**	**2.202**	**3.008**	**3.072**	**.123**	**.004**	**24.760**
1982 Total	**12.582**	**3.342**	**1.568**	**3.131**	**3.539**	**.105**	**.003**	**24.270**
1983 Total	**13.213**	**2.998**	**1.544**	**3.203**	**3.866**	**.129**	**.004**	**24.956**
1984 Total	**14.020**	**3.220**	**1.286**	**3.553**	**3.767**	**.165**	**.009**	**26.020**
1985 Total	**14.542**	**3.160**	**1.090**	**4.149**	**3.365**	**.198**	**.015**	**26.519**
1986 Total	**14.444**	**2.691**	**1.452**	**4.471**	**3.413**	**.219**	**.012**	**26.703**
1987 Total	**15.173**	**2.935**	**1.257**	**4.906**	**3.084**	**.229**	**.016**	**27.600**
1988 Total	**15.850**	**2.709**	**1.563**	**5.661**	**2.630**	**.217**	**.017**	**28.648**
1989 Total	**15.988**	**2.871**	**1.685**	**5.677**	**2.848**	**.197**	**.020**	**29.286**
1990 Total	**16.189**	**2.882**	**1.250**	**6.161**	**2.914**	**.181**	**.021**	**29.599**
1991 Total	**16.028**	**2.856**	**1.178**	**6.579**	**3.083**	**.170**	**.021**	**29.915**
1992 Total	**16.211**	**2.826**	**.951**	**6.607**	**2.760**	**.169**	**.022**	**29.547**
1993 Total	**16.790**	**2.741**	**1.052**	**6.519**	**3.017**	**.158**	**.021**	**30.299**
1994 Total	**16.895**	**3.053**	**.968**	**6.837**	**2.962**	**.145**	**.020**	**30.881**
1995 January	1.464	.204	.046	.675	.268	.009	.001	2.666
February	1.307	.172	.075	.553	.274	.006	.001	2.389
March	1.303	.251	.034	.553	.314	.007	.001	2.462
April	1.211	.235	.036	.526	.277	.006	.002	2.291
May	1.284	.264	.047	.580	.306	.005	.001	2.487
June	1.421	.304	.048	.601	.327	.006	.001	2.709
July	1.633	.417	.079	.661	.306	.006	.002	3.105
August	1.716	.480	.091	.657	.283	.011	.002	3.240
September	1.406	.324	.051	.594	.226	.008	.002	2.610
October	1.359	.246	.038	.579	.250	.013	.002	2.486
November	1.377	.203	.039	.562	.271	.012	.002	2.465
December	1.508	.177	.075	.638	.306	.011	.001	2.716
Total	**16.990**	**3.276**	**.658**	**7.177**	**3.407**	**.099**	**.017**	**31.625**
1996 January	1.574	.173	.086	.669	.316	.007	.002	2.826
February	1.416	.140	.091	.594	.334	.008	.001	2.584
March	1.415	.160	.066	.589	.362	.007	.002	2.601
April	1.278	.174	.035	.535	.345	.008	.001	2.375
May	1.381	.271	.042	.591	.356	.005	.001	2.648
June	1.506	.307	.060	.611	.349	.008	.002	2.843
July	1.646	.367	.082	.648	.328	.012	.002	3.084
August	1.668	.376	.066	.653	.309	.012	.002	3.085
September	1.475	.292	.054	.580	.250	.010	.002	2.663
October	1.468	.232	.039	.538	.248	.011	.002	2.538
November	1.508	.174	.048	.554	.256	.011	.002	2.553
December	1.594	.136	.066	.607	.324	.010	.002	2.739
Total	**17.927**	**2.801**	**.735**	**7.168**	**3.777**	**.110**	**.020**	**32.539**
1997 January	1.664	.143	.089	.626	.348	.009	.002	2.879
February	1.392	.147	.048	.538	.328	.006	.002	2.461
March	1.416	.194	.046	.536	.372	.009	.002	2.574
3-Month Total	**4.471**	**.483**	**.183**	**1.700**	**1.048**	**.024**	**.005**	**7.914**
1996 3-Month Total	**4.405**	**.473**	**.243**	**1.852**	**1.012**	**.022**	**.005**	**8.011**
1995 3-Month Total	**4.074**	**.627**	**.154**	**1.781**	**.855**	**.022**	**.004**	**7.517**

[a] Includes supplemental gaseous fuels.
[b] Includes residual and distillate fuel oils, petroleum coke, and small amounts of kerosene and jet fuel.
[c] Includes net imports of electricity.
[d] "Other" is electricity generated for distribution from wood, waste, wind, photovoltaic, and solar thermal energy.

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

Additional Notes and Sources: See end of section.

Please Read: This table reports energy input at electric utilities and does not include data on nonutility power producers (NUPP). NUPP data are collected by EIA on an annual basis starting in 1989. See EIA's *Electric Power Annual 1995, Volume II,* the "Nonutility Power Producers" chapter for additional information.

Energy Consumption Notes and Sources

The data in this section of the *Monthly Energy Review* (*MER*) are obtained initially from a group of energy-related surveys, typically called "supply surveys," conducted by the Energy Information Administration (EIA). Supply surveys are those surveys directed to suppliers and marketers of specific energy sources. They measure the quantities of specific energy sources produced, or the quantities supplied to the market, or both. The data obtained from the EIA's supply surveys are integrated to yield the summary consumption statistics published in this section (and in Section 1) of the *MER*. Users of the EIA's energy consumption statistics should be aware of a second group of energy-related surveys, typically called "consumption surveys." Consumption surveys gather information on the types of energy consumed by end users of energy, along with the characteristics of those end users that can be associated with energy use. For example, the Manufacturing Energy Consumption Survey belongs to the consumption survey group because it collects information directly from end users (the manufacturing establishments). There are important differences between the supply and consumption surveys that need to be taken into account in any analysis that uses both data sources. For information on those differences, see *Energy Consumption by End-Use Sector, A Comparison of Measures by Consumption and Supply Surveys*, DOE/EIA-0533, Energy Information Administration, Washington, DC, April 6, 1990. The numbered notes that follow elaborate on essential information in Section 2.

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

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

- Residential—All private residences, whether occupied or vacant, owned or rented, including single-family homes, multifamily housing units, and mobile homes. Secondary homes, such as summer homes, are also included. Institutional housing, such as school dormitories, hospitals, and military barracks, generally are not included in the residential sector; they are included in the commercial sector.
- Commercial—Business establishments that are not engaged in transportation or in manufacturing or other types of industrial activity (agriculture, mining, or construction). Commercial establishments include hotels, motels, restaurants, wholesale businesses, retail stores, laundries, and other service enterprises; religious and nonprofit organizations; health, social, and educational institutions; and Federal, State, and local governments. Street lights, pumps, bridges, and public services are also included if the establishment operating them is considered commercial.
- Industrial—Manufacturing industries, which make up the largest part of the sector, along with mining, construction, agriculture, fisheries, and forestry. Establishments in this sector range from steel mills to small farms to companies assembling electronic components.
- Transportation—Private and public vehicles that move people and commodities. Included are automobiles, trucks, buses, motorcycles, railroads and railways (including streetcars), aircraft, ships, barges, and natural gas pipelines.
- Electric Utility—Privately and publicly owned establishments that generate, transmit, distribute, and sell electricity primarily for use by the public and meet the definition of an electric utility. Nonutility power producers are not included in the electric utility sector.

Although the end-use allocations are made according to these aggregations as closely as possible, some data are collected by using different classifications. For example, data on agricultural use of natural gas are collected and reported in the commercial sector, rather than in the industrial sector. Since agricultural use of natural gas cannot be identified separately, it is included in the commercial sector in this report. Another example is master-metered condominiums and apartments, and buildings with a combination of residential and commercial units. In many cases, the metering and billing practices cause residential energy usage of electricity, natural gas, or fuel oil to be included in the commercial sector. No adjustments for these discrepancies were made.

3. Conversion Factors: See the conversion factors listed in Appendix A.

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

- 1973-October 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), Form EIA-759 (formerly Federal Power Commission (FPC) Form FPC-4), "Monthly Power Plant Report."
- Other Industrial—October 1977-December 1979: EIA, Form EIA-3, "Monthly Coal Consumption Report -Manufacturing Plants"; January 1980 forward: EIA, Form EIA-3, "Quarterly Coal Consumption Report - Manufacturing Plants," and Form EIA-6, "Coal Distribution Report," quarterly.

- Coke Plants—October 1977-December 1980: EIA, Form EIA-5/5A, "Coke and Coal Chemicals - Monthly/Annual"; January 1981-December 1984: EIA, Form EIA-5/5A, "Coke Plant Report - Quarterly/Annual Supplement"; January 1985 forward: EIA, Form EIA-5/5A, "Coke Plant Report - Quarterly."
- Residential and Commercial—October 1977-December 1979: EIA, Form EIA-2, "Monthly Coal Report, Retail Dealers - Upper Lake Docks"; January 1980 forward: EIA, Form EIA-6, "Coal Distribution Report," quarterly.

5. Natural Gas: Natural gas consumption by end use is based on data presented in Table 4.4 of this report. For Section 2 calculations, lease and plant fuel consumption are added to industrial deliveries, and pipeline fuel represents transportation use of natural gas. Values in Btu are derived by using the conversion factors provided in Appendix A. Sources:

- 1973-1975: DOI, BOM, *Minerals Yearbook*, "Natural Gas" chapter.
- 1976-1978: EIA, *Energy Data Reports*, "Natural Gas, Annual."
- 1979: EIA, *Natural Gas Production and Consumption 1979*.
- 1980-1995: EIA, *Natural Gas Annual*.
- 1996 and 1997: EIA, *Natural Gas Monthly*.
- Electric Utilities—1973-1976: Form FPC-4, "Monthly Power Plant Report"; 1977-1981: Federal Energy Regulatory Commission (FERC), Form FPC-4, "Monthly Power Plant Report"; 1982 forward: EIA, Form EIA-759, "Monthly Power Plant Report."
- American Gas Association, "Monthly Gas Utility Statistical Report," residential and commercial monthly sales data for 1973-1979, which are used to estimate monthly consumption values from EIA annual consumption values.

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 (MER)* is the series called "petroleum products supplied" in Section 3. Sources for petroleum products supplied by individual products are:

- 1973-1975: DOI, BOM, *Mineral Industry Surveys*, "Petroleum Statement, Annual."
- 1976-1980: EIA, *Energy Data Reports*, "Petroleum Statement, Annual."
- 1981-1995: EIA, *Petroleum Supply Annual*.
- 1996 and 1997: EIA, *Petroleum Supply Monthly*.

Specific petroleum products' end-use allocation procedures follow:

- **Aviation Gasoline**—All product supplied is assigned to the transportation sector.
- **Asphalt**—All product supplied is assigned to the industrial sector.
- **Distillate Fuel**—Product supplied is assigned to electric utilities and non-electric utilities as follows:

Electric Utilities, All Periods.

For 1973-1979, consumption of distillate fuel is assumed to be the amount of petroleum (minus small amounts of kerosene and kerosene-type jet fuel deliveries) consumed in gas turbine and internal combustion plants. For 1980 forward, consumption of distillate fuel is assumed to be the amount of light oil (minus small amounts of kerosene deliveries through 1982) consumed at electric utilities. (See Table 7.3)

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

Sectors Other Than Electric Utilities, Annual Estimates Through 1994.

The aggregate non-electric utility use of distillate fuel is total distillate fuel supplied minus the electric utility consumption. The non-electric utility annual consumption totals are allocated to the individual non-electric utility sectors (residential, commercial, industrial, and transportation) in proportion to the share of "adjusted sales" of each end-use sector, as reported in EIA's *Fuel Oil and Kerosene Sales* report series (DOE/EIA-0535), which is based primarily on data collected by Form EIA-821, previously Form EIA-172. "Adjusted sales" are sales that have been adjusted at the PAD district level to equal EIA volume estimates of petroleum products supplied in the U.S. market. Following are notes on the individual sector groupings:

- Since 1979, the residential sector adjusted sales total is directly from the *Sales* reports. Prior to 1979, each year's sales subtotal of the heating plus industrial category is split into residential, commercial, and industrial (including farm) in proportion to the 1979 shares.

- Since 1979, the commercial sector adjusted sales total is directly from the *Sales* reports. Prior to 1979, each year's sales subtotal of the heating plus industrial category is split into residential, commercial, and industrial (including farm) in proportion to the 1979 shares.

- Since 1979, the industrial sector adjusted sales total is the sum of the adjusted sales for industrial, farm, oil company, off-highway, diesel, and all other uses. Prior to 1979, each year's sales subtotal of the heating plus industrial category is split into residential, commercial, and industrial (including farm) in proportion to the 1979 shares, and this estimated industrial portion is added to oil company, off-highway diesel, and all other uses.

- The transportation sector adjusted sales total is the sum of the adjusted sales for railroad, vessel bunkering, on-highway diesel, and military uses for all years.

Sectors Other Than Electric Utilities, Monthly Estimates Through 1994.

- Residential and commercial monthly consumption is estimated by allocating the annual estimates, which are described above, into the months in proportion to each month's share of the year's sales of No. 2 heating oil. The years' sales totals are from the following sources: for 1973-1980, the Ethyl Corporation, *Monthly Report of Heating Oil Sales;* for 1981 and 1982, the American Petroleum Institute, *Monthly Report of Heating Oil Sales;* and for 1983-1992, EIA, Form EIA-782A, "Refiners'/Gas Plant Operators' Monthly Petroleum Product Sales Report," No. 2 Fuel Oil Sales to End Users and for Resale.

- The transportation 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." After 1993, the sales-for-highway-use data are no longer available as a monthly series; the 1993 data are used for allocating succeeding year's totals into 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 monthly estimates are made by subtracting the residential and commercial, transportation, and electric utility sector estimates from each month's total distillate fuel supplied.

Sectors Other Than Electric Utilities, 1995-1997.

Each month's non-electric utility consumption subtotal is disaggregated into the major end-use sectors in proportion to the shares each sector held of the non-electric utility subtotal in the same month in 1994.

- **Jet Fuel**—Through 1982, small amounts of kerosene-type jet fuel were consumed by electric utilities. Kerosene-type jet fuel deliveries to electric utilities as reported on the Form FERC-423 (formerly Form FPC-423) were used as estimates of this consumption. All remaining jet fuel (kerosene-type and naphtha-type) is consumed by the transportation sector.

- **Kerosene**—Total product supplied monthly is allocated to the major end-use sectors in proportion to annual sales grouped into end-use sectors from EIA's *Fuel Oil and Kerosene Sales* reports (based primarily on data collected by Form EIA-821, previously Form EIA-172), as follows:

  - Residential deliveries are taken directly from the *Sales* reports for 1979-1994. Sales for 1994 are used as estimates for succeeding periods. Prior to 1979, each year's sales category called "heating" is split into residential, commercial, and industrial in proportion to the 1979 shares.

  - Commercial sales are directly from the *Sales* reports for 1979-1994. Sales for 1994 are used as estimates for succeeding periods. Prior to 1979, each year's sales category called "heating" is split into residential, commercial, and industrial in proportion to the 1979 shares.

  - Industrial sales are directly from the *Sales* reports for 1979-1994. Sales for 1994 are used as estimates for succeeding periods. Prior to 1979, each year's sales category called "heating" is split into residential, commercial and industrial in proportion to the 1979 shares, and this estimated industrial (including farm) portion is added to all other uses.

- **Liquefied Petroleum Gases (LPG)**—The annual shares of LPG's total consumption that are estimated to be consumed by each end-use sector are applied to each month's total LPG consumption (i.e., product supplied) to create monthly end-use consumption estimates. The annual end-use shares are calculated in the following manner:

  - Sales of LPG to the residential and commercial sector are converted from thousand gallons per year to thousand barrels per year and are assumed to be the annual consumption of LPG by the sector.

  - The quantity of LPG sold each year for consumption in internal combustion engines is allocated between the transportation and industrial sectors on the basis of data for special fuels used on highways published by the U.S. Department of Transportation, Federal Highway Administration, in *Highway Statistics*. The allocations of LPG sold for internal combustion engine use to the transportation sector range from a low of 37 percent in 1987 to a high of 73 percent in 1994.

  - LPG consumed annually by the industrial sector is estimated as the difference between LPG total supplied and the estimated consumption of LPG by the sum of the residential and commercial sector and the transportation sector. The industrial sector includes LPG used by chemical plants as raw ma-

terials or solvents and used in the production of synthetic rubber; refinery fuel use; use as synthetic natural gas feedstock and use in secondary recovery projects; all farm use; LPG sold to gas utility companies for distribution through the mains; and a portion of the use of LPG as an internal combustion engine fuel.

The sources of the annual sales data for creating annual end-use shares are:

- 1973-1982: EIA's "Sales of Liquefied Petroleum Gases and Ethane" reports, based primarily on data collected by Form EIA-174.

- 1983: End-use consumption estimates for 1983 are based on 1982 end-use consumption because the collection of data under Form EIA-174 was discontinued after data year 1982.

- 1984-1994: American Petroleum Institute (API), "Sales of Natural Gas Liquids and Liquefied Refinery Gases," which is based on an LPG sales survey jointly sponsored by API, the Gas Processors Association, and the National Liquefied Petroleum Gas Association.

- 1995-1997: The 1994 source is used to estimate succeeding periods.

- **Lubricants**—Total product supplied is allocated to the industrial and transportation sectors for all months according to proportions developed from annual sales of lubricants to the 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 created on the basis of 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 and miscellaneous and unclassified uses.

  - Industrial sales are the sum of sales for agriculture, construction, and industrial and commercial use as classified in the *Highway Statistics*.

  - 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 electric utilities is from Form EIA-759, "Monthly Power Plant Report" (formerly Form FPC-4). The remaining petroleum coke is assigned to the industrial sector.
- **Residual Fuel**—Product supplied is assigned to electric utilities and non-electric utilities as follows:

  Electric Utilities, All Periods.

  For 1973-1979, consumption of residual fuel is assumed to be the amount of petroleum consumed in steam-electric power plants. For 1980 forward, consumption of residual fuel is assumed to be the amount of heavy oil consumed at electric utilities. (See Table 7.3)

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

  Sectors Other Than Electric Utilities, Annual Estimates Through 1994.

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

  - Since 1979, commercial sales data are directly from the *Sales* reports. Prior to 1979, each year's sales subtotal of the heating plus industrial category is split into commercial and industrial in proportion to the 1979 shares.

  - Since 1979, industrial sales data are the sum of sales for industrial, oil company, and all other uses. Prior to 1979, each year's sales subtotal of the heating plus industrial category is split into commercial and industrial in proportion to the 1979 shares, and this estimated industrial portion is added to oil company and all other uses.

  - Transportation sales are the sum of sales for railroad, vessel bunkering, and military uses for all years.

  Sectors Other Than Electric Utilities, Monthly Estimates Through 1994.

  - Commercial monthly consumption is estimated by allocating the annual estimates, which are described above, into the months in proportion to each

month's share of the year's sales of No. 2 heating oil. The years' sales totals are from the following sources: for 1973-1980, the Ethyl Corporation, *Monthly Report of Heating Oil Sales*; for 1981 and 1982, the American Petroleum Institute, *Monthly Report of Heating Oil Sales;* and for 1983-1992, EIA, Form EIA-782A, "Refiners'/Gas Plant Operators' Monthly Petroleum Product Sales Report," No. 2 Fuel Oil Sales to End Users and for Resale.

- Transportation monthly estimates are made by evenly distributing the annual sector estimate over the months, adjusting for the number of days per month.

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

Sectors Other Than Electric Utilities, 1995-1997.

Each month's non-electric utility consumption subtotal is disaggregated into the major end-use sectors in proportion to the shares each sector held of the non-electric utility subtotal in the same month in 1994.

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

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

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

Sources for electric utilities sector:

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

Sources for industrial sector:

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

Sources for imports and exports of electricity:

- 1973-September 1977: Unpublished Federal Power Commission data.
- October 1977-1980: Unpublished Economic Regulatory Administration (ERA) data.
- 1981: DOE, Office of Energy Emergency Operations, "Report on Electric Energy Exchanges with Canada and Mexico for Calendar Year 1981," April 1982 (revised June 1982).
- 1982 and 1983: DOE, ERA, *Electricity Exchanges Across International Borders*.
- 1984-1986: DOE, ERA, *Electricity Transactions Across International Borders*.
- 1987 and 1988: DOE, ERA, Form ERA-781R, "Annual Report of International Electrical Export/Import Data."
- 1989-1993: DOE, Assistant Secretary for Fossil Energy, Form FE-781-R, "Annual Report of International Electrical Export/Import Data."
- 1994 forward: EIA estimates based on preliminary data from the National Energy Board of Canada and DOE, Assistant Secretary for Fossil Energy.

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

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

10. Electricity: End-use consumption of electricity is based on Table 7.2 sales data. "Other," which is primarily for use in government buildings, is added to the commercial sector, except for approximately 4 percent used by railroads and railways and attributed to the

transportation sector. For 1973-1983 and 1995, "Monthly Series" data are used directly. For 1984-1993, monthly estimates are created by dividing each month's "Monthly Series" value by the "Monthly Series" total for the year and multiplying by the "Annual Series" value for the year. Kilowatthours are converted to Btu at the rate of 3,412 Btu per kilowatthour. See Table 7.2 for sources of the electricity sales data.

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

12. Renewable Energy: *Monthly Energy Review (MER)* consumption and production totals currently capture about half of estimated total renewable energy resources. Coverage is complete for the electric utilities as reported under "Hydroelectric Power," "Geothermal Energy," and "Other" on Table 2.6. Small amounts of hydroelectric power (about 0.03 quadrillion Btu in 1995) included on Table 2.6 are used at pumped storage facilities and are not considered renewable. Small quantities of ethanol (about 0.11 quadrillion Btu in 1995) are blended into motor gasoline, which are accounted for under "Petroleum Products" on Table 2.5 for the transportation sector.

Renewable energy used by residential, commercial, and industrial consumers is not currently included in the *MER* data series because consistent monthly series are not available. On an annual basis, the estimated quantities in quadrillion Btu are:

	Residential and Commercial			Industrial					
Year	Biofuels	Solar	**Total**	Biofuels	Geothermal	Conventional Hydroelectric	Solar	Wind	**Total**
1990	0.581	0.060	**0.641**	1.948	0.146	0.082	0.007	0.024	**2.206**
1991	0.613	0.060	**0.673**	1.943	0.162	0.083	0.008	0.027	**2.223**
1992	0.645	0.060	**0.705**	2.042	0.179	0.097	0.008	0.030	**2.357**
1993	0.592	0.060	**0.652**	2.084	0.204	0.118	0.009	0.031	**2.446**
1994	0.582	0.060	**0.642**	2.152	0.212	0.136	0.008	0.036	**2.543**
1995	0.641	0.064	**0.705**	2.178	0.244	0.153	0.010	0.041	**2.625**

Source: *Annual Energy Review 1995* (July 1996), Table 10.1b.

Note: More information about renewable energy is available in EIA's *Renewable Energy Annual 1996*, which was released in March 1997. See the inside front cover of the *Monthly Energy Review* for information about ordering EIA reports, or, for direct access to several reports on the subject of renewable energy, go to our Web site at http:/www.eia.doe.gov and tap "Alternative/Renewables" under "Fuel Groups."

Section 3. Petroleum

Total petroleum imports[1] averaged 10.1 million barrels per day in May 1997, 1 percent higher than the previous month's rate and 2 percent higher than the May 1996 rate.

In May 1997, 18.2 million barrels per day of petroleum products were supplied for domestic use, 2 percent higher than the May 1996 rate. Motor gasoline accounted for 44 percent of the total; distillate fuel oil, 18 percent; and kerosene-type jet fuel, 8 percent.

Motor gasoline supplied during May 1997 averaged 8.0 million barrels per day, slightly lower than the previous month's rate but 1 percent higher than the May 1996 rate. Total motor gasoline stocks were 201 million barrels at the end of May 1997, 3 million barrels above the stock level in the previous month but 4 million barrels below the level 1 year earlier.

Distillate fuel oil supplied during May 1997 averaged 3.2 million barrels per day, 9 percent lower than the previous month's rate but 3 percent higher than the May 1996 rate. Distillate fuel oil ending stocks for May 1997 were 109 million barrels, 11 million barrels above the stock level in the previous month and 13 million barrels above the level 1 year earlier.

Kerosene-type jet fuel supplied in May 1997 averaged 1.5 million barrels per day, 2 percent lower than the previous month's rate but 6 percent higher than the May 1996 rate. Kerosene-type jet fuel stocks measured 41 million barrels at the end of May 1997, 2 million barrels above the stock level in the previous month and 5 million barrels higher than the stock level 1 year earlier.

Estimates (except of crude production) for the most current month are based on Energy Information Administration (EIA) weekly data and will be revised to conform with data from the EIA Petroleum Reporting System as available. For the most recent month, crude production is an EIA estimate based on historical and provisional data through February 1997.

[1]Total import data include imports into the Strategic Petroleum Reserve.

Table 3.1a Petroleum Overview: Field Production, Stock Change, Petroleum Products Supplied, and Ending Stocks

	Field Production			Stock Change[a]			Ending Stocks[b]
	Total Domestic[c]	Crude Oil	Natural Gas Plant Liquids	Crude Oil[d]	Petroleum Products	Petroleum Products Supplied	Crude Oil[d] 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**	**[e]1,074**
1975 Average	**10,045**	**8,375**	**1,633**	**[e]17**	**[e]15**	**16,322**	**1,133**
1976 Average	**9,774**	**8,132**	**[f]1,604**	**39**	**-96**	**17,461**	**1,112**
1977 Average	**9,913**	**8,245**	**1,618**	**170**	**378**	**18,431**	**1,312**
1978 Average	**10,328**	**8,707**	**1,567**	**78**	**-172**	**18,847**	**1,278**
1979 Average	**10,179**	**8,552**	**1,584**	**148**	**25**	**18,513**	**1,341**
1980 Average	**10,214**	**8,597**	**1,573**	**98**	**42**	**17,056**	**[e]1,392**
1981 Average	**10,230**	**8,572**	**1,609**	**[e]290**	**[e]-130**	**16,058**	**1,484**
1982 Average	**10,252**	**8,649**	**1,550**	**136**	**-283**	**15,296**	**[e]1,430**
1983 Average	**10,299**	**8,688**	**1,559**	**[e]214**	**[e]-234**	**15,231**	**1,454**
1984 Average	**10,554**	**8,879**	**1,630**	**199**	**81**	**15,726**	**1,556**
1985 Average	**10,636**	**8,971**	**1,609**	**50**	**-153**	**15,726**	**1,519**
1986 Average	**10,289**	**8,680**	**1,551**	**78**	**124**	**16,281**	**1,593**
1987 Average	**10,008**	**8,349**	**1,595**	**128**	**-87**	**16,665**	**1,607**
1988 Average	**9,818**	**8,140**	**1,625**	**1**	**-29**	**17,283**	**1,597**
1989 Average	**9,219**	**7,613**	**1,546**	**86**	**-129**	**17,325**	**1,581**
1990 Average	**8,994**	**7,355**	**1,559**	**-35**	**142**	**16,988**	**1,621**
1991 Average	**9,168**	**7,417**	**1,659**	**-42**	**32**	**16,714**	**1,617**
1992 Average	**8,996**	**7,171**	**1,697**	**-1**	**-68**	**17,033**	**[e]1,592**
1993 Average	**[g]8,836**	**6,847**	**1,736**	**81**	**[e]70**	**17,237**	**[e]1,647**
1994 Average	**8,645**	**6,662**	**1,727**	**18**	**-2**	**17,718**	**1,653**
1995 January	8,764	6,682	1,787	-219	-84	17,219	1,643
February	8,935	6,794	1,780	-49	-1,225	18,279	1,608
March	8,619	6,600	1,776	336	-552	17,484	1,601
April	8,720	6,604	1,794	-101	114	17,142	1,601
May	8,729	6,629	1,790	-132	464	17,293	1,612
June	8,607	6,579	1,740	-148	57	18,131	1,609
July	8,500	6,449	1,751	-397	897	17,147	1,624
August	8,498	6,447	1,730	-253	-73	18,044	1,614
September	8,467	6,416	1,757	-64	243	18,026	1,620
October	8,501	6,421	1,757	168	-589	17,651	1,607
November	8,662	6,585	1,797	263	-352	17,979	1,604
December	8,533	6,530	1,691	-505	-822	18,366	1,563
Average	**8,626**	**6,560**	**1,762**	**-93**	**-153**	**17,725**	**1,563**
1996 January	[E]8,561	[E]6,495	1,718	51	-629	18,212	1,543
February	[E]8,522	[E]6,550	1,675	-64	-1,433	18,498	1,500
March	[E]8,647	[E]6,516	1,810	-141	-440	18,180	1,482
April	[E]8,621	[E]6,479	1,836	24	618	17,837	1,501
May	[E]8,553	[E]6,443	1,810	36	550	17,857	1,519
June	[E]8,593	[E]6,502	1,836	272	600	18,049	1,546
July	[E]8,532	[E]6,383	1,834	-200	337	18,143	1,550
August	[E]8,565	[E]6,389	1,867	9	-87	18,513	1,547
September	[E]8,649	[E]6,503	1,878	-495	705	17,605	1,554
October	[E]8,693	[E]6,490	1,908	183	-636	19,103	1,540
November	[E]8,739	[E]6,465	1,915	-439	-92	18,496	1,524
December	[E]8,675	[E]6,448	1,876	-645	188	18,300	1,510
Average	**[E]8,613**	**[E]6,471**	**1,831**	**-117**	**-24**	**18,234**	**1,510**
1997 January	[E]8,487	[E]6,387	1,815	497	-717	18,560	1,503
February	[E]8,739	[E]6,514	1,900	-167	-569	18,308	1,482
March	[E]8,690	[E]6,470	1,907	529	447	17,869	1,512
April	[RE]8,672	[RE]6,483	[R]1,849	[R]208	[R]10	[R]18,572	[R]1,519
May	[E]8,653	[PE]6,429	[E]1,902	[E]267	[E]1,147	[E]18,233	[E]1,546
5-Month Average	**[E]8,646**	**[PE]6,455**	**[E]1,874**	**[E]276**	**[E]76**	**[E]18,306**	**[E]1,546**
1996 5-Month Average	**[E]8,581**	**[E]6,496**	**1,770**	**-18**	**-257**	**18,114**	**1,519**
1995 5-Month Average	**8,750**	**6,660**	**1,786**	**-32**	**-240**	**17,470**	**1,612**

[a] A negative number indicates a decrease in stocks and a positive number indicates an increase.
[b] Stocks are totals as of end of period.
[c] Includes crude oil, natural gas plant liquids, and other liquids.
[d] Includes stocks located in the Strategic Petroleum Reserve.
[e] See Note 4 at end of section.
[f] See Note 6 at end of section.
[g] Beginning in 1993, includes fuel ethanol blended into finished motor gasoline and oxygenate production from merchant MTBE (methyl tertiary butyl ether) plants.

PE=Preliminary estimate. R=Revised data. E=Estimate.

Notes: • Crude oil includes lease condensate. • Geographic coverage is the 50 States and the District of Columbia.

Sources: • **1973-1980:** Energy Information Administration (EIA), *Petroleum Supply Monthly,* February 1993, Table S1. • **1981-1996:** EIA, *Petroleum Supply Monthly,* May 1997, Table S1. • **1997:** EIA, *Petroleum Supply Monthly,* June 1997, Table S1.

Table 3.1b Petroleum Overview: Imports, Exports, and Net Imports

	Imports			Exports			
	Total	Crude Oil[a]	Petroleum Products	Total	Crude Oil	Petroleum Products	Net Imports[b]
	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**	[c] **471**	**235**	[c] **236**	[c] **7,985**
1980 Average	**6,909**	**5,263**	**1,646**	**544**	**287**	**258**	**6,365**
1981 Average	**5,996**	**4,396**	**1,599**	**595**	**228**	**367**	**5,401**
1982 Average	**5,113**	**3,488**	**1,625**	**815**	**236**	**579**	**4,298**
1983 Average	**5,051**	**3,329**	**1,722**	**739**	**164**	**575**	**4,312**
1984 Average	**5,437**	**3,426**	**2,011**	**722**	**181**	**541**	**4,715**
1985 Average	**5,067**	**3,201**	**1,866**	**781**	**204**	**577**	**4,286**
1986 Average	**6,224**	**4,178**	**2,045**	**785**	**154**	**631**	**5,439**
1987 Average	**6,678**	**4,674**	**2,004**	**764**	**151**	**613**	**5,914**
1988 Average	**7,402**	**5,107**	**2,295**	**815**	**155**	**661**	**6,587**
1989 Average	**8,061**	**5,843**	**2,217**	**859**	**142**	**717**	**7,202**
1990 Average	**8,018**	**5,894**	**2,123**	**857**	**109**	**748**	**7,161**
1991 Average	**7,627**	**5,782**	**1,844**	**1,001**	**116**	**885**	**6,626**
1992 Average	**7,888**	**6,083**	**1,805**	**950**	**89**	**861**	**6,938**
1993 Average	**8,620**	**6,787**	**1,833**	**1,003**	**98**	**904**	**7,618**
1994 Average	**8,996**	**7,063**	**1,933**	**942**	**99**	**843**	**8,054**
1995 January	8,015	6,505	1,509	978	113	865	7,037
February	8,345	6,546	1,799	1,062	95	967	7,283
March	9,006	7,391	1,615	948	68	880	8,059
April	8,465	7,038	1,427	998	155	842	7,467
May	8,709	7,325	1,384	876	73	803	7,832
June	9,558	7,927	1,631	919	101	818	8,639
July	8,863	7,265	1,598	895	103	792	7,969
August	9,061	7,437	1,624	821	61	759	8,240
September	9,736	8,007	1,729	805	74	731	8,930
October	8,577	7,075	1,502	962	50	912	7,615
November	9,074	7,302	1,772	1,002	118	884	8,072
December	8,612	6,916	1,696	1,135	127	1,008	7,477
Average	**8,835**	**7,230**	**1,605**	**949**	**95**	**855**	**7,886**
1996 January	9,272	7,260	2,013	1,070	89	981	8,202
February	8,287	6,553	1,734	1,048	92	956	7,240
March	8,967	7,136	1,831	867	94	773	8,101
April	9,357	7,316	2,042	976	148	828	8,381
May	9,914	8,029	1,885	891	37	854	9,023
June	9,920	7,958	1,962	895	130	766	9,025
July	9,752	7,771	1,982	945	139	806	8,808
August	9,866	8,020	1,846	896	44	852	8,970
September	9,078	7,333	1,745	1,104	147	957	7,974
October	9,747	7,683	2,064	1,045	134	911	8,702
November	9,143	7,344	1,800	1,024	172	852	8,119
December	9,412	7,322	2,091	1,013	96	917	8,400
Average	**9,399**	**7,482**	**1,917**	**981**	**110**	**871**	**8,419**
1997 January	9,633	7,393	2,240	1,038	141	897	8,595
February	9,475	7,384	2,091	1,015	228	787	8,460
March	9,712	7,665	2,047	932	136	796	8,780
April	[R] 9,934	[R] 7,810	[R] 2,124	[R] 937	[R] 92	[R] 845	[R] 8,997
May	[E] 10,075	[E] 8,009	[E] 2,066	[E] 940	[E] 102	[E] 838	[E] 9,134
5-Month Average	[E] **9,770**	[E] **7,656**	[E] **2,114**	[E] **972**	[E] **138**	[E] **833**	[E] **8,799**
1996 5-Month Average	**9,170**	**7,268**	**1,902**	**969**	**92**	**878**	**8,201**
1995 5-Month Average	**8,511**	**6,969**	**1,543**	**970**	**100**	**870**	**7,541**

[a] Includes crude oil for storage in the Strategic Petroleum Reserve.
[b] Net imports equals imports minus exports.
[c] See Note 6 at end of section.
R=Revised data. E=Estimate.

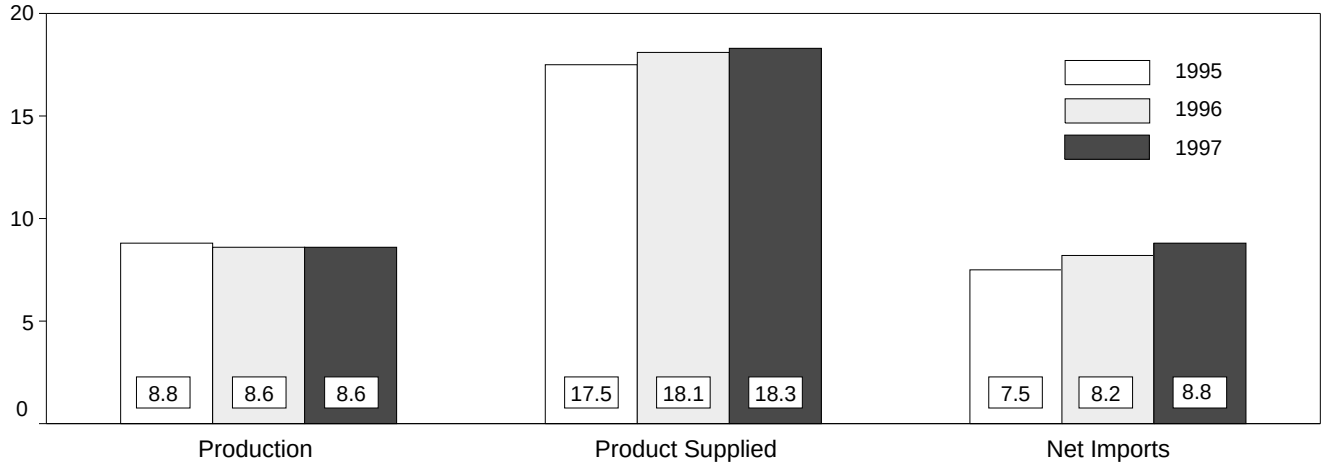
Notes: • Crude oil includes lease condensate. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Sources: • **1973-1980:** Energy Information Administration (EIA), *Petroleum Supply Monthly,* February 1993, Table S1. • **1981-1996:** EIA, *Petroleum Supply Monthly,* May 1997, Table S1. • **1997:** EIA, *Petroleum Supply Monthly,* June 1997, Table S1.

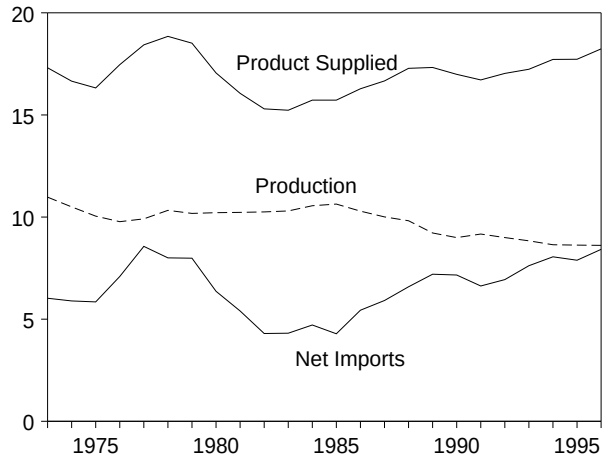
Figure 3.1 Petroleum Overview

(Million Barrels per Day)

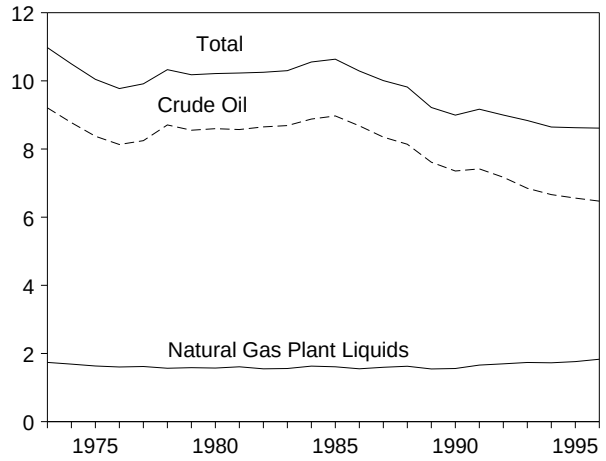
Overview, January-May



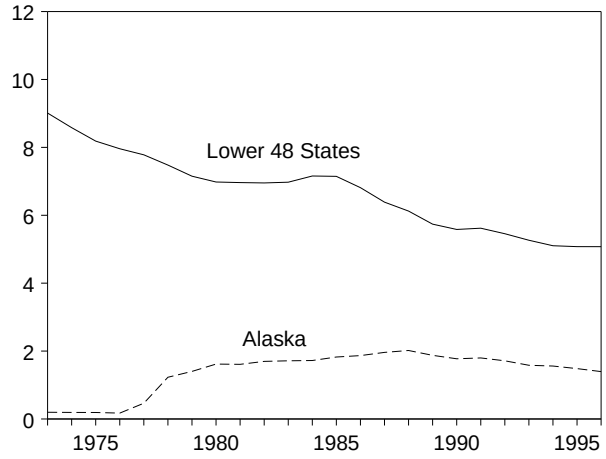
Overview, 1973-1996



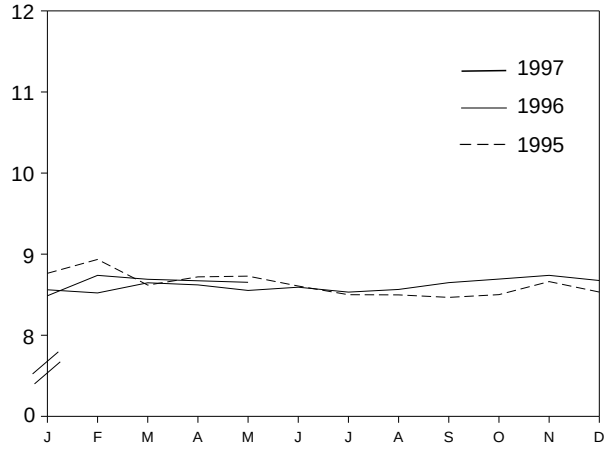
Production, 1973-1996



Crude Oil Production, 1973-1996



Total Production, Monthly

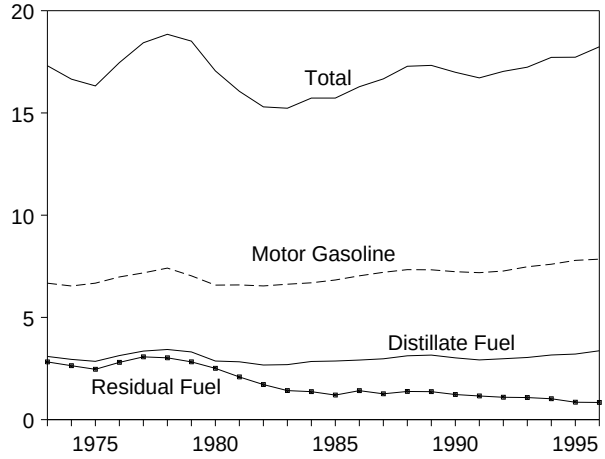


Note: Because vertical scales differ, graphs should not be compared.
Sources: Tables 3.1a, 3.1b, and 3.2a.

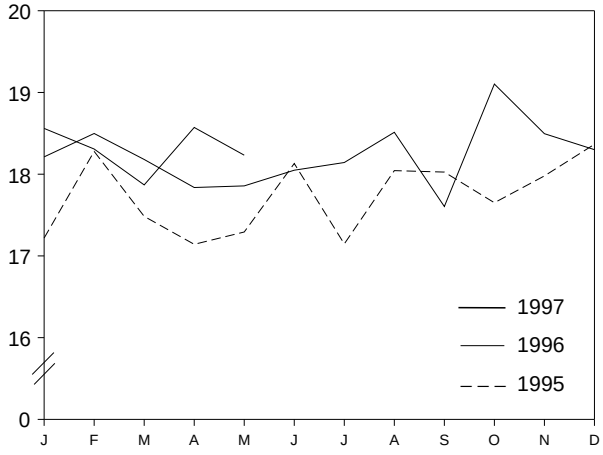
Figure 3.1 Petroleum Overview (Continued)

(Million Barrels per Day, Except as Noted)

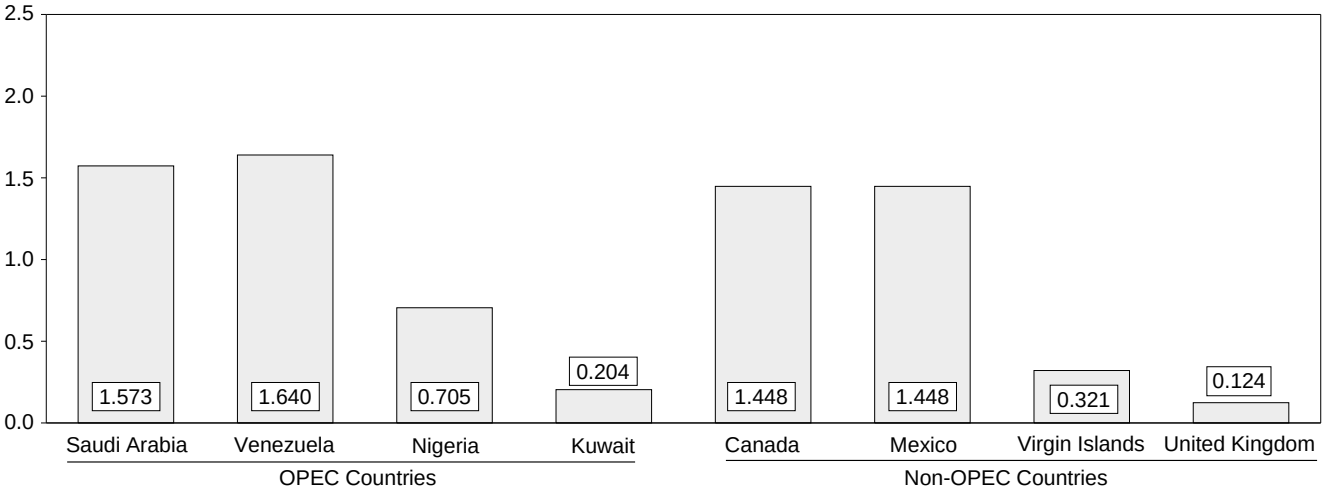
Product Supplied, 1973-1996



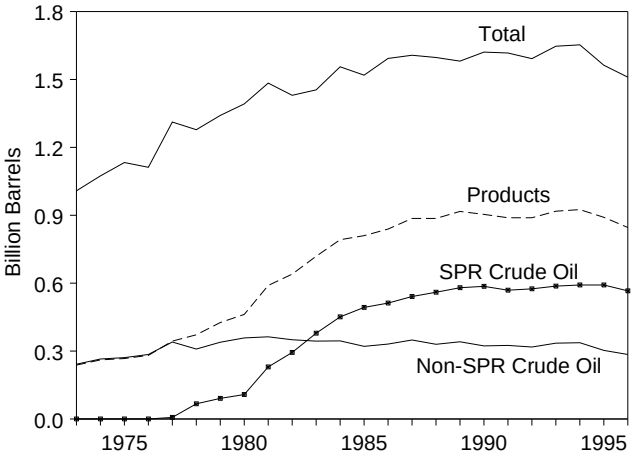
Product Supplied, Monthly



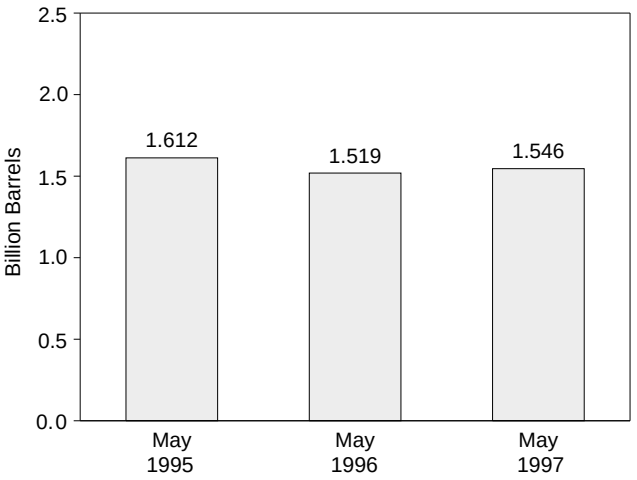
Imports from Selected Countries, April 1997



Stocks, End of Year, 1973-1996



Total Stocks, End of Month



Notes: • OPEC = Organization of Petroleum Exporting Countries. • SPR = Strategic Petroleum Reserve. • Because vertical scales differ, graphs should not be compared.

Sources: Tables 3.1a, 3.2b, 3.3a, 3.3b, 3.3d-3.3h, 3.4, 3.5, and 3.6.

Table 3.2a Crude Oil Supply and Disposition: Supply

	Supply						
	Field Production		Imports			Unaccounted-for Crude Oil[b]	Crude Oil Used Directly[c]
	Total Domestic	Alaskan	Total	SPR[a]	Other		
	Thousand Barrels per Day						
1973 Average	**9,208**	**198**	**3,244**	–	**3,244**	**3**	**-19**
1974 Average	**8,774**	**193**	**3,477**	–	**3,477**	**-25**	**-15**
1975 Average	**8,375**	**191**	**4,105**	–	**4,105**	**17**	**-17**
1976 Average	**8,132**	**173**	**5,287**	–	**5,287**	**77**	[d] **-19**
1977 Average	**8,245**	**464**	**6,615**	**21**	**6,594**	**-6**	**-14**
1978 Average	**8,707**	**1,229**	**6,356**	[d] **161**	**6,195**	**-57**	[d] **-15**
1979 Average	**8,552**	**1,401**	**6,519**	**67**	**6,452**	**-11**	[d] **-14**
1980 Average	**8,597**	**1,617**	**5,263**	**44**	**5,219**	**34**	[d] **-14**
1981 Average	**8,572**	**1,609**	**4,396**	**256**	**4,141**	**83**	**-58**
1982 Average	**8,649**	**1,696**	**3,488**	**165**	**3,323**	**71**	**-59**
1983 Average	**8,688**	**1,714**	**3,329**	**234**	**3,096**	**114**	**–**
1984 Average	**8,879**	**1,722**	**3,426**	**197**	**3,229**	**185**	**–**
1985 Average	**8,971**	**1,825**	**3,201**	**118**	**3,083**	**145**	**–**
1986 Average	**8,680**	**1,867**	**4,178**	**48**	**4,130**	**139**	**–**
1987 Average	**8,349**	**1,962**	**4,674**	**73**	**4,601**	**145**	**–**
1988 Average	**8,140**	**2,017**	**5,107**	**51**	**5,055**	**196**	**–**
1989 Average	**7,613**	**1,874**	**5,843**	**56**	**5,787**	**200**	**–**
1990 Average	**7,355**	**1,773**	**5,894**	**27**	**5,867**	**258**	**–**
1991 Average	**7,417**	**1,798**	**5,782**	**0**	**5,782**	**195**	**–**
1992 Average	**7,171**	**1,714**	**6,083**	**10**	**6,073**	**258**	**–**
1993 Average	**6,847**	**1,582**	**6,787**	**15**	**6,772**	**168**	**–**
1994 Average	**6,662**	**1,559**	**7,063**	**12**	**7,051**	**266**	**–**
1995 January	6,682	1,575	6,505	0	6,505	318	–
February	6,794	1,578	6,546	0	6,546	78	–
March	6,600	1,525	7,391	0	7,391	-101	–
April	6,604	1,511	7,038	0	7,038	237	–
May	6,629	1,518	7,325	0	7,325	296	–
June	6,579	1,484	7,927	0	7,927	6	–
July	6,449	1,401	7,265	0	7,265	402	–
August	6,447	1,432	7,437	0	7,437	207	–
September	6,416	1,377	8,007	0	8,007	-5	–
October	6,421	1,475	7,075	0	7,075	328	–
November	6,585	1,472	7,302	0	7,302	334	–
December	6,530	1,466	6,916	0	6,916	193	–
Average	**6,560**	**1,484**	**7,230**	**0**	**7,230**	**193**	**–**
1996 January	[E] 6,495	[E] 1,444	7,260	0	7,260	105	–
February	[E] 6,550	[E] 1,482	6,553	0	6,553	462	–
March	[E] 6,516	[E] 1,454	7,136	0	7,136	63	–
April	[E] 6,479	[E] 1,367	7,316	0	7,316	647	–
May	[E] 6,443	[E] 1,341	8,029	0	8,029	9	–
June	[E] 6,502	[E] 1,419	7,958	0	7,958	483	–
July	[E] 6,383	[E] 1,317	7,771	0	7,771	109	–
August	[E] 6,389	[E] 1,327	8,020	0	8,020	73	–
September	[E] 6,503	[E] 1,401	7,333	0	7,333	304	–
October	[E] 6,490	[E] 1,404	7,683	0	7,683	425	–
November	[E] 6,465	[E] 1,403	7,344	0	7,344	205	–
December	[E] 6,448	[E] 1,392	7,322	0	7,322	-119	–
Average	[E] **6,471**	[E] **1,396**	**7,482**	**0**	**7,482**	**227**	**–**
1997 January	[E] 6,387	[E] 1,380	7,393	0	7,393	496	–
February	[E] 6,514	[E] 1,384	7,384	0	7,384	-407	–
March	[E] 6,470	[E] 1,331	7,665	0	7,665	582	–
April	[RE] 6,483	[RE] 1,330	[R] 7,810	0	[R] 7,810	[R] 293	–
May	[PE] 6,429	[PE] 1,297	[E] 8,009	[E] 0	[E] 8,009	[E] 976	–
5-Month Average	[PE] **6,455**	[PE] **1,344**	[E] **7,656**	[E] **0**	[E] **7,656**	[E] **404**	**–**
1996 5-Month Average	[E] **6,496**	[E] **1,417**	**7,268**	**0**	**7,268**	**252**	**–**
1995 5-Month Average	**6,660**	**1,541**	**6,969**	**0**	**6,969**	**167**	**–**

[a] Strategic Petroleum Reserve.
[b] A balancing item.
[c] Beginning in January 1983, crude oil used directly as fuel is shown as product supplied.
[d] See Note 6 at end of section.
PE=Preliminary estimate. R=Revised data. – =Not applicable. E=Estimate.
Notes: • Crude oil includes lease condensate. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.
Sources: • **1973-1980:** Energy Information Administration (EIA), *Petroleum Supply Monthly,* February 1993, Table S2. • **1981-1996:** EIA, *Petroleum Supply Monthly,* May 1997, Table S2. • **1997:** EIA, *Petroleum Supply Monthly,* June 1997, Table S2.

Table 3.2b Crude Oil Supply and Disposition: Disposition and Ending Stocks

	Disposition						Ending Stocks[a]		
	Crude Losses	Stock Change[b] SPR[c]	Stock Change[b] Other	Refinery Inputs	Exports	Product Supplied[d]	Total	SPR[c]	Other Primary
	Thousand Barrels per Day						Million Barrels		
1973 Average	**13**	–	**-11**	**12,431**	**2**	–	**242**	–	**242**
1974 Average	**13**	–	**62**	**12,133**	**3**	–	**265**	–	**265**
1975 Average	**13**	–	**17**	**12,442**	**6**	–	**271**	–	**271**
1976 Average	[e] **14**	–	**39**	**13,416**	**8**	–	**285**	–	**285**
1977 Average	**16**	**20**	**150**	**14,602**	**50**	–	**348**	**7**	**340**
1978 Average	**16**	**163**	**-84**	**14,739**	**158**	–	**376**	**67**	**309**
1979 Average	**16**	**67**	**81**	**14,648**	**235**	–	**430**	**91**	**339**
1980 Average	[e] **14**	**45**	**52**	**13,481**	**287**	–	[f] **466**	**108**	[f] **358**
1981 Average	**5**	**336**	[f] **-46**	**12,470**	**228**	–	**594**	**230**	**363**
1982 Average	**3**	**174**	**-38**	**11,774**	**236**	–	[g] **644**	**294**	[g] **350**
1983 Average	**2**	**234**	[g] **-20**	**11,685**	**164**	**66**	**723**	**379**	**344**
1984 Average	**2**	**195**	**4**	**12,044**	**181**	**64**	**796**	**451**	**345**
1985 Average	**1**	**117**	**-67**	**12,002**	**204**	**60**	**814**	**493**	**321**
1986 Average	**(s)**	**50**	**28**	**12,716**	**154**	**49**	**843**	**512**	**331**
1987 Average	**(s)**	**80**	**49**	**12,854**	**151**	**34**	**890**	**541**	**349**
1988 Average	**(s)**	**52**	**-51**	**13,246**	**155**	**40**	**890**	**560**	**330**
1989 Average	**(s)**	**56**	**30**	**13,401**	**142**	**28**	**921**	**580**	**341**
1990 Average	**(s)**	**16**	**-51**	**13,409**	**109**	**24**	**908**	**586**	**323**
1991 Average	**(s)**	**-47**	**5**	**13,301**	**116**	**18**	**893**	**569**	**325**
1992 Average	**(s)**	**17**	**-18**	**13,411**	**89**	**13**	**893**	**575**	**318**
1993 Average	**(s)**	**34**	**47**	**13,613**	**98**	**10**	**922**	**587**	**335**
1994 Average	**(s)**	**13**	**5**	**13,866**	**99**	**9**	**929**	**592**	**337**
1995 January	(s)	(s)	-219	13,604	113	7	922	592	330
February	0	(s)	-49	13,365	95	8	921	592	329
March	(s)	(s)	336	13,480	68	7	931	592	339
April	0	(s)	-101	13,817	155	7	928	592	336
May	0	(s)	-132	14,303	73	7	924	592	332
June	0	(s)	-148	14,553	101	5	920	592	328
July	0	(s)	-397	14,403	103	7	907	592	316
August	(s)	(s)	-253	14,276	61	6	899	592	308
September	0	(s)	-63	14,402	74	6	898	592	306
October	(s)	(s)	169	13,598	50	8	903	592	311
November	0	-1	264	13,833	118	7	911	592	319
December	0	(s)	-505	14,011	127	6	895	592	303
Average	**(s)**	**(s)**	**-93**	**13,973**	**95**	**7**	**895**	**592**	**303**
1996 January	0	(s)	52	13,708	89	11	895	592	303
February	0	(s)	-63	13,529	92	8	893	592	302
March	0	-80	-61	13,755	94	7	889	589	300
April	(s)	-88	112	14,263	148	6	889	586	303
May	0	-22	58	14,401	37	7	891	586	305
June	0	-45	317	14,535	130	6	899	584	314
July	(s)	-50	-150	14,319	139	5	893	583	310
August	0	-172	181	14,423	44	6	893	578	315
September	0	-130	-364	14,483	147	6	878	574	304
October	0	-1	185	14,276	134	5	884	574	310
November	0	-127	-312	14,276	172	5	870	570	301
December	0	-129	-516	14,194	96	6	850	566	285
Average	**(s)**	**-71**	**-47**	**14,181**	**110**	**6**	**850**	**566**	**285**
1997 January	0	-75	572	13,632	141	5	866	563	302
February	0	(s)	-167	13,425	228	6	861	563	298
March	0	(s)	529	14,047	136	5	878	563	314
April	0	(s)	[R] 208	[R] 14,283	[R] 92	[R] 3	[R] 884	563	[R] 320
May	[E] 0	[E] (s)	[E] 267	[E] 15,040	[E] 102	[E] 6	[E] 889	[E] 563	[E] 326
5-Month Average	[E] **0**	[E] **-16**	[E] **291**	[E] **14,097**	[E] **138**	[E] **5**	[E] **889**	[E] **563**	[E] **326**
1996 5-Month Average	**(s)**	**-38**	**20**	**13,934**	**92**	**8**	**891**	**586**	**305**
1995 5-Month Average	**(s)**	**(s)**	**-32**	**13,720**	**100**	**7**	**924**	**592**	**332**

[a] Stocks are totals as of end of period.
[b] A negative number indicates a decrease in stocks and a positive number indicates an increase.
[c] Strategic Petroleum Reserve.
[d] Beginning in January 1983, crude oil used directly as fuel is shown as product supplied.
[e] See Note 6 at end of section.
[f] Stocks of Alaskan crude oil in transit are included from January 1981 forward. See Note 5 at end of section.
[g] See Note 4 at end of section.

R=Revised data. – =Not applicable. E=Estimate. (s)=Less than +500 barrels per day and greater than -500 barrels per day.

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

Sources: • **1973-1980:** Energy Information Administration (EIA), *Petroleum Supply Monthly,* February 1993, Table S2. • **1981-1996:** EIA, *Petroleum Supply Monthly,* May 1997, Table S2. • **1997:** EIA, *Petroleum Supply Monthly,* June 1997, Table S2.

Table 3.3a Petroleum Imports: Bahrain, Iran, Iraq, and Kuwait

(Thousand Barrels per Day)

	Persian Gulf[a]							
	Bahrain		Iran		Iraq		Kuwait[b]	
	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil
1973 Average	**11**	**0**	**223**	**216**	**4**	**4**	**47**	**42**
1974 Average	**12**	**0**	**469**	**463**	**0**	**0**	**5**	**5**
1975 Average	**16**	**0**	**280**	**278**	**2**	**2**	**16**	**4**
1976 Average	**3**	**0**	**298**	**298**	**26**	**26**	**5**	**1**
1977 Average	**10**	**0**	**535**	**530**	**74**	**74**	**48**	**42**
1978 Average	**3**	**0**	**555**	**554**	**62**	**62**	**6**	**5**
1979 Average	**1**	**0**	**304**	**297**	**88**	**88**	**8**	**5**
1980 Average	**(s)**	**0**	**9**	**8**	**28**	**28**	**27**	**27**
1981 Average	**1**	**0**	**0**	**0**	**(s)**	**0**	**0**	**0**
1982 Average	**1**	**0**	**35**	**35**	**3**	**3**	**5**	**2**
1983 Average	**2**	**0**	**48**	**48**	**10**	**10**	**14**	**7**
1984 Average	**1**	**0**	**10**	**10**	**12**	**12**	**36**	**24**
1985 Average	**4**	**0**	**27**	**27**	**46**	**46**	**21**	**4**
1986 Average	**2**	**0**	**19**	**19**	**81**	**81**	**68**	**28**
1987 Average	**0**	**0**	**98**	**98**	**83**	**82**	**84**	**70**
1988 Average	**2**	**0**	[c] **(s)**	[c] **(s)**	**345**	**343**	**92**	**80**
1989 Average	**0**	**0**	**0**	**0**	**449**	**441**	**157**	**155**
1990 Average	**1**	**0**	**0**	**0**	**518**	**514**	**86**	**79**
1991 Average	**2**	**0**	**32**	**32**	**0**	**0**	**6**	**6**
1992 Average	**0**	**0**	**0**	**0**	**0**	**0**	**51**	**39**
1993 Average	**1**	**0**	**0**	**0**	**0**	**0**	**353**	**344**
1994 Average	**1**	**0**	**0**	**0**	**0**	**0**	**312**	**307**
1995 January	0	0	0	0	0	0	130	120
February	11	0	0	0	0	0	346	324
March	0	0	0	0	0	0	252	252
April	0	0	0	0	0	0	171	164
May	0	0	0	0	0	0	208	204
June	0	0	0	0	0	0	260	259
July	0	0	0	0	0	0	195	195
August	0	0	0	0	0	0	180	175
September	0	0	0	0	0	0	187	182
October	0	0	0	0	0	0	250	244
November	0	0	0	0	0	0	238	238
December	0	0	0	0	0	0	215	215
Average	**1**	**0**	**0**	**0**	**0**	**0**	**218**	**213**
1996 January	0	0	0	0	0	0	148	145
February	0	0	0	0	0	0	216	216
March	0	0	0	0	0	0	127	127
April	17	0	0	0	0	0	201	201
May	0	0	0	0	0	0	230	230
June	0	0	0	0	0	0	388	388
July	0	0	0	0	0	0	266	266
August	0	0	0	0	0	0	271	266
September	0	0	0	0	0	0	236	236
October	0	0	0	0	0	0	260	260
November	0	0	0	0	0	0	228	228
December	0	0	0	0	14	14	262	262
Average	**1**	**0**	**0**	**0**	**1**	**1**	**236**	**235**
1997 January	0	0	0	0	0	0	209	209
February	0	0	0	0	0	0	172	172
March	0	0	0	0	35	35	315	315
April	0	0	0	0	69	69	204	204
4-Month Average	**0**	**0**	**0**	**0**	**26**	**26**	**226**	**226**
1996 4-Month Average	**4**	**0**	**0**	**0**	**0**	**0**	**172**	**171**
1995 4-Month Average	**2**	**0**	**0**	**0**	**0**	**0**	**222**	**213**

[a] Excludes petroleum imported into the United States indirectly from members of the Organization of Petroleum Exporting Countries (OPEC), primarily from Caribbean and West European areas, as petroleum products that were refined from crude oil produced by OPEC.

[b] Imports from the Neutral Zone between Kuwait and Saudi Arabia are included in Saudi Arabia.

[c] A small amount of Iranian crude oil entered the United States in January 1988 from the Virgin Islands. The oil originated in Iran and was exported to the Virgin Islands prior to the signing of Executive Order 12613 on October 29, 1987.

(s)=Less than 500 barrels per day.

Notes: • Beginning in October 1977, Strategic Petroleum Reserve imports are included. • U.S. geographic coverage is the 50 States and the District of Columbia.

Sources: • **Bahrain:** Energy Information Administration (EIA), Form EIA-814, "Monthly Imports Report." • **All Other Data: 1973-1980—**EIA, *Petroleum Supply Monthly,* February 1993, Table S3. **1981-1996—**EIA, *Petroleum Supply Monthly,* May 1997, Table S3. **1997—**EIA, *Petroleum Supply Monthly,* June 1997, Table S3.

Table 3.3b Petroleum Imports: Qatar, Saudi Arabia, U.A.E., and Total Persian Gulf

(Thousand Barrels per Day)

	Persian Gulf[a]							
	Qatar		Saudi Arabia[b]		United Arab Emirates		Total[a]	
	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil
1973 Average	**7**	**7**	**486**	**462**	**71**	**71**	**848**	**802**
1974 Average	**17**	**17**	**461**	**438**	**74**	**69**	**1,039**	**992**
1975 Average	**18**	**18**	**715**	**701**	**117**	**117**	**1,165**	**1,121**
1976 Average	**24**	**24**	**1,230**	**1,222**	**254**	**254**	**1,840**	**1,825**
1977 Average	**67**	**67**	**1,380**	**1,373**	**335**	**333**	**2,448**	**2,418**
1978 Average	**64**	**64**	**1,144**	**1,142**	**385**	**385**	**2,219**	**2,212**
1979 Average	**31**	**31**	**1,356**	**1,347**	**281**	**281**	**2,069**	**2,049**
1980 Average	**22**	**22**	**1,261**	**1,250**	**172**	**172**	**1,519**	**1,508**
1981 Average	**7**	**7**	**1,129**	**1,112**	**81**	**77**	**1,219**	**1,196**
1982 Average	**7**	**7**	**552**	**530**	**92**	**81**	**696**	**659**
1983 Average	**(s)**	**0**	**337**	**321**	**30**	**18**	**442**	**405**
1984 Average	**5**	**4**	**325**	**309**	**117**	**90**	**506**	**450**
1985 Average	**(s)**	**0**	**168**	**132**	**45**	**35**	**311**	**244**
1986 Average	**13**	**12**	**685**	**618**	**44**	**38**	**912**	**796**
1987 Average	**0**	**0**	**751**	**642**	**61**	**56**	**1,077**	**949**
1988 Average	**0**	**0**	**1,073**	**911**	**29**	**23**	**1,541**	**1,357**
1989 Average	**2**	**2**	**1,224**	**1,116**	**28**	**21**	**1,861**	**1,734**
1990 Average	**4**	**4**	**1,339**	**1,195**	**17**	**9**	**1,966**	**1,801**
1991 Average	**0**	**0**	**1,802**	**1,703**	**3**	**2**	**1,845**	**1,743**
1992 Average	**1**	**0**	**1,720**	**1,597**	**6**	**0**	**1,778**	**1,636**
1993 Average	**1**	**0**	**1,414**	**1,282**	**14**	**12**	**1,782**	**1,637**
1994 Average	**0**	**0**	**1,402**	**1,297**	**13**	**11**	**1,728**	**1,615**
1995 January	0	0	1,309	1,251	20	20	1,459	1,391
February	0	0	1,181	1,134	13	13	1,550	1,471
March	0	0	1,535	1,410	0	0	1,788	1,662
April	0	0	1,375	1,321	0	0	1,547	1,485
May	0	0	1,281	1,237	0	0	1,490	1,441
June	0	0	1,287	1,221	12	1	1,558	1,481
July	0	0	1,265	1,165	0	0	1,460	1,360
August	0	0	1,340	1,245	20	20	1,541	1,440
September	0	0	1,474	1,357	29	0	1,691	1,539
October	0	0	1,260	1,181	14	0	1,524	1,426
November	0	0	1,429	1,326	10	10	1,677	1,574
December	0	0	1,378	1,263	0	0	1,593	1,478
Average	**0**	**0**	**1,344**	**1,260**	**10**	**5**	**1,573**	**1,479**
1996 January	0	0	1,398	1,334	0	0	1,546	1,479
February	0	0	1,128	1,053	0	0	1,344	1,268
March	0	0	1,422	1,318	0	0	1,549	1,446
April	0	0	1,288	1,200	0	0	1,506	1,401
May	0	0	1,518	1,414	0	0	1,748	1,643
June	0	0	1,138	1,035	11	11	1,537	1,433
July	0	0	1,548	1,371	4	4	1,819	1,642
August	0	0	1,477	1,333	0	0	1,747	1,599
September	0	0	1,355	1,255	0	0	1,591	1,491
October	0	0	1,357	1,209	17	17	1,635	1,486
November	0	0	1,290	1,201	0	0	1,518	1,429
December	0	0	1,408	1,236	0	0	1,684	1,511
Average	**0**	**0**	**1,363**	**1,248**	**3**	**3**	**1,604**	**1,488**
1997 January	0	0	1,344	1,253	0	0	1,553	1,462
February	0	0	1,361	1,250	0	0	1,533	1,421
March	0	0	1,292	1,157	0	0	1,641	1,506
April	15	0	1,573	1,408	0	0	1,862	1,682
4-Month Average	**4**	**0**	**1,392**	**1,266**	**0**	**0**	**1,648**	**1,519**
1996 4-Month Average	**0**	**0**	**1,312**	**1,229**	**0**	**0**	**1,488**	**1,401**
1995 4-Month Average	**0**	**0**	**1,354**	**1,282**	**8**	**8**	**1,587**	**1,503**

[a] Excludes petroleum imported into the United States indirectly from members of the Organization of Petroleum Exporting Countries (OPEC), primarily from Caribbean and West European areas, as petroleum products that were refined from crude oil produced by OPEC.

[b] Imports from the Neutral Zone between Kuwait and Saudi Arabia are included in Saudi Arabia.

(s)=Less than 500 barrels per day.

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

Sources: • **1973-1980:** Energy Information Administration (EIA), *Petroleum Supply Monthly,* February 1993, Table S3. • **1981-1996:** EIA, *Petroleum Supply Monthly,* May 1997, Table S3. • **1997:** EIA, *Petroleum Supply Monthly,* June 1997, Table S3.

Table 3.3c Petroleum Imports: Algeria, Ecuador, Gabon, Indonesia, and Libya

(Thousand Barrels per Day)

	Other OPEC[a]									
	Algeria		Ecuador[b]		Gabon[c]		Indonesia		Libya	
	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil
1973 Average	**136**	**120**	**48**	**47**	**0**	**0**	**213**	**200**	**164**	**133**
1974 Average	**190**	**180**	**42**	**42**	**23**	**23**	**300**	**284**	**4**	**4**
1975 Average	**282**	**264**	**57**	**57**	**27**	**27**	**390**	**379**	**232**	**223**
1976 Average	**432**	**408**	**51**	**51**	**28**	**26**	**539**	**537**	**453**	**444**
1977 Average	**559**	**544**	**57**	**55**	**42**	**35**	**541**	**507**	**723**	**704**
1978 Average	**649**	**634**	**54**	**38**	**41**	**38**	**573**	**533**	**654**	**638**
1979 Average	**636**	**608**	**42**	**30**	**42**	**42**	**420**	**380**	**658**	**642**
1980 Average	**488**	**456**	**27**	**17**	**26**	**25**	**348**	**314**	**554**	**548**
1981 Average	**311**	**261**	**48**	**38**	**35**	**35**	**366**	**318**	**319**	**317**
1982 Average	**170**	**90**	**42**	**32**	**40**	**40**	**248**	**226**	**26**	**23**
1983 Average	**240**	**176**	**61**	**56**	**59**	**59**	**338**	**315**	**0**	**0**
1984 Average	**323**	**194**	**55**	**47**	**58**	**57**	**343**	**304**	**1**	**0**
1985 Average	**187**	**84**	**67**	**56**	**52**	**51**	**314**	**292**	**4**	**0**
1986 Average	**271**	**78**	**77**	**64**	**26**	**25**	**318**	**297**	**0**	**0**
1987 Average	**295**	**115**	**29**	**23**	**35**	**35**	**285**	**262**	**0**	**0**
1988 Average	**300**	**58**	**47**	**33**	**16**	**15**	**205**	**186**	**0**	**0**
1989 Average	**269**	**60**	**89**	**80**	**50**	**49**	**183**	**158**	**0**	**0**
1990 Average	**280**	**63**	**49**	**38**	**64**	**64**	**114**	**98**	**0**	**0**
1991 Average	**253**	**44**	**63**	**53**	**84**	**84**	**111**	**102**	**0**	**0**
1992 Average	**196**	**24**	**65**	**62**	**124**	**123**	**78**	**70**	**0**	**0**
1993 Average	**220**	**24**	**(b)**	**(b)**	**152**	**151**	**81**	**65**	**0**	**0**
1994 Average	**243**	**21**	**(b)**	**(b)**	**194**	**194**	**111**	**92**	**0**	**0**
1995 January	153	0	(b)	(b)	(c)	(c)	38	38	0	0
February	358	64	(b)	(b)	(c)	(c)	129	87	0	0
March	196	19	(b)	(b)	(c)	(c)	51	29	0	0
April	251	31	(b)	(b)	(c)	(c)	95	87	0	0
May	163	36	(b)	(b)	(c)	(c)	65	36	0	0
June	277	39	(b)	(b)	(c)	(c)	96	51	0	0
July	257	11	(b)	(b)	(c)	(c)	104	96	0	0
August	298	65	(b)	(b)	(c)	(c)	122	95	0	0
September	250	20	(b)	(b)	(c)	(c)	94	66	0	0
October	229	39	(b)	(b)	(c)	(c)	87	68	0	0
November	241	0	(b)	(b)	(c)	(c)	107	73	0	0
December	152	0	(b)	(b)	(c)	(c)	72	41	0	0
Average	**234**	**27**	**(b)**	**(b)**	**(c)**	**(c)**	**88**	**64**	**0**	**0**
1996 January	313	38	(b)	(b)	(c)	(c)	52	43	0	0
February	200	16	(b)	(b)	(c)	(c)	44	43	0	0
March	241	38	(b)	(b)	(c)	(c)	58	55	0	0
April	211	2	(b)	(b)	(c)	(c)	57	57	0	0
May	333	0	(b)	(b)	(c)	(c)	49	15	0	0
June	313	0	(b)	(b)	(c)	(c)	72	65	0	0
July	312	0	(b)	(b)	(c)	(c)	56	48	0	0
August	315	0	(b)	(b)	(c)	(c)	53	49	0	0
September	186	0	(b)	(b)	(c)	(c)	26	26	0	0
October	209	0	(b)	(b)	(c)	(c)	125	82	0	0
November	214	3	(b)	(b)	(c)	(c)	36	12	0	0
December	214	0	(b)	(b)	(c)	(c)	81	32	0	0
Average	**256**	**8**	**(b)**	**(b)**	**(c)**	**(c)**	**59**	**44**	**0**	**0**
1997 January	282	0	(b)	(b)	(c)	(c)	73	38	0	0
February	319	0	(b)	(b)	(c)	(c)	51	39	0	0
March	309	0	(b)	(b)	(c)	(c)	18	15	0	0
April	320	23	(b)	(b)	(c)	(c)	40	32	0	0
4-Month Average	**307**	**6**	**(b)**	**(b)**	**(c)**	**(c)**	**46**	**31**	**0**	**0**
1996 4-Month Average	**242**	**24**	**(b)**	**(b)**	**(c)**	**(c)**	**53**	**50**	**0**	**0**
1995 4-Month Average	**237**	**28**	**(b)**	**(b)**	**(c)**	**(c)**	**77**	**59**	**0**	**0**

[a] Excludes petroleum imported into the United States indirectly from members of the Organization of Petroleum Exporting Countries (OPEC), primarily from Caribbean and West European areas, as petroleum products that were refined from crude oil produced by OPEC.

[b] Ecuador withdrew from OPEC on December 31, 1992. As of January 1993, imports from Ecuador appear on Table 3.3f under "Non-OPEC."

[c] Gabon withdrew from OPEC on December 31, 1994. As of January 1995, imports from Gabon appear on Table 3.3f under "Non-OPEC."

Notes: • Beginning in October 1977, Strategic Petroleum Reserve imports are included. • U.S. geographic coverage is the 50 States and the District of Columbia.

Sources: • **1973-1980:** Energy Information Administration (EIA), *Petroleum Supply Monthly,* February 1993, Table S3. • **1981-1996:** EIA, *Petroleum Supply Monthly,* May 1997, Table S3. • **1997:** EIA, *Petroleum Supply Monthly,* June 1997, Table S3.

Table 3.3d Petroleum Imports: Nigeria, Venezuela, Total Other OPEC, and Total OPEC

(Thousand Barrels per Day)

	Other OPEC[a]						Total OPEC[b]	
	Nigeria		Venezuela		Total			
	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil
1973 Average	**459**	**448**	**1,135**	**344**	**2,156**	**1,293**	**2,993**	**2,095**
1974 Average	**713**	**697**	**979**	**319**	**2,253**	**1,549**	**3,280**	**2,540**
1975 Average	**762**	**746**	**702**	**395**	**2,452**	**2,091**	**3,601**	**3,211**
1976 Average	**1,025**	**1,014**	**700**	**241**	**3,229**	**2,721**	**5,066**	**4,545**
1977 Average	**1,143**	**1,130**	**690**	**250**	**3,754**	**3,225**	**6,193**	**5,643**
1978 Average	**919**	**910**	**646**	**181**	**3,536**	**2,972**	**5,751**	**5,184**
1979 Average	**1,080**	**1,069**	**690**	**293**	**3,569**	**3,063**	**5,637**	**5,112**
1980 Average	**857**	**841**	**481**	**156**	**2,781**	**2,356**	**4,300**	**3,864**
1981 Average	**620**	**611**	**406**	**147**	**2,106**	**1,726**	**3,323**	**2,922**
1982 Average	**514**	**510**	**412**	**155**	**1,451**	**1,075**	**2,146**	**1,734**
1983 Average	**302**	**301**	**422**	**164**	**1,422**	**1,072**	**1,862**	**1,477**
1984 Average	**216**	**207**	**548**	**253**	**1,544**	**1,062**	**2,049**	**1,512**
1985 Average	**293**	**280**	**605**	**306**	**1,522**	**1,069**	**1,830**	**1,312**
1986 Average	**440**	**437**	**793**	**416**	**1,926**	**1,317**	**2,837**	**2,113**
1987 Average	**535**	**529**	**804**	**488**	**1,983**	**1,451**	**3,060**	**2,400**
1988 Average	**618**	**607**	**794**	**439**	**1,981**	**1,339**	**3,520**	**2,696**
1989 Average	**815**	**800**	**873**	**495**	**2,279**	**1,642**	**4,140**	**3,376**
1990 Average	**800**	**784**	**1,025**	**666**	**2,332**	**1,713**	**4,296**	**3,514**
1991 Average	**703**	**683**	**1,035**	**668**	**2,249**	**1,634**	**4,092**	**3,377**
1992 Average	**681**	**665**	**1,170**	**826**	**2,313**	**1,770**	**4,092**	**3,406**
1993 Average	**740**	**722**	**1,300**	**1,010**	**2,493**	**1,972**	**4,273**	**3,609**
1994 Average	**637**	**624**	**1,334**	**1,034**	**2,520**	**1,965**	**4,247**	**3,580**
1995 January	625	617	1,442	1,061	2,258	1,717	3,718	3,108
February	463	463	1,439	1,083	2,389	1,697	3,929	3,168
March	687	676	1,499	1,208	2,432	1,933	4,220	3,595
April	467	458	1,365	1,083	2,177	1,659	3,724	3,144
May	603	592	1,480	1,176	2,311	1,840	3,801	3,281
June	696	696	1,479	1,209	2,548	1,995	4,106	3,476
July	696	696	1,536	1,162	2,592	1,965	4,052	3,325
August	482	463	1,449	1,162	2,352	1,784	3,892	3,225
September	851	841	1,655	1,288	2,851	2,214	4,541	3,753
October	649	649	1,453	1,159	2,418	1,914	3,942	3,340
November	646	637	1,507	1,140	2,501	1,851	4,178	3,424
December	652	652	1,459	1,074	2,334	1,767	3,927	3,245
Average	**627**	**621**	**1,480**	**1,151**	**2,430**	**1,862**	**4,002**	**3,341**
1996 January	690	663	1,508	1,148	2,563	1,892	4,109	3,371
February	634	626	1,467	1,166	2,345	1,852	3,689	3,120
March	594	548	1,691	1,341	2,584	1,981	4,133	3,427
April	518	497	1,727	1,288	2,514	1,844	4,003	3,245
May	705	705	1,641	1,333	2,728	2,054	4,475	3,697
June	711	697	1,635	1,236	2,731	1,999	4,268	3,432
July	720	666	1,672	1,332	2,760	2,047	4,579	3,689
August	793	785	1,729	1,431	2,890	2,265	4,638	3,865
September	694	677	1,679	1,269	2,584	1,972	4,175	3,463
October	521	488	1,769	1,448	2,624	2,019	4,258	3,504
November	465	453	1,689	1,303	2,404	1,770	3,921	3,199
December	320	298	1,665	1,355	2,280	1,686	3,963	3,197
Average	**614**	**592**	**1,657**	**1,305**	**2,585**	**1,949**	**4,188**	**3,437**
1997 January	531	505	1,637	1,212	2,523	1,755	4,077	3,217
February	625	620	1,595	1,255	2,591	1,913	4,123	3,335
March	558	557	1,753	1,324	2,638	1,895	4,279	3,402
April	705	696	1,640	1,254	2,706	2,005	4,567	3,687
4-Month Average	**604**	**593**	**1,658**	**1,261**	**2,614**	**1,891**	**4,263**	**3,410**
1996 4-Month Average	**609**	**583**	**1,600**	**1,236**	**2,504**	**1,893**	**3,988**	**3,294**
1995 4-Month Average	**564**	**557**	**1,437**	**1,110**	**2,314**	**1,754**	**3,898**	**3,257**

[a] Excludes petroleum imported into the United States indirectly from members of the Organization of Petroleum Exporting Countries (OPEC), primarily from Caribbean and West European areas, as petroleum products that were refined from crude oil produced by OPEC.

[b] OPEC includes the Persian Gulf nations that are displayed on Tables 3.3a and 3.3b except Bahrain, which is not a member of OPEC, and the nations displayed under "Other OPEC" on Tables 3.3c and 3.3d. Ecuador withdrew from OPEC on December 31, 1992; as of January 1993, imports from Ecuador appear on Table 3.3f under "Non-OPEC." Gabon withdrew on December 31, 1994; as of January 1995, imports from Gabon appear on Table 3.3f under "Non-OPEC." Imports from Bahrain are accounted for under "Other Non-OPEC" on Table 3.3h.

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

Sources: • **1973-1980:** Energy Information Administration (EIA), *Petroleum Supply Monthly,* February 1993, Table S3. • **1981-1996:** EIA, *Petroleum Supply Monthly,* May 1997, Table S3. • **1997:** EIA, *Petroleum Supply Monthly,* June 1997, Table S3.

Table 3.3e Petroleum Imports: Angola, Australia, Bahama Islands, Brazil, Canada, and China

(Thousand Barrels per Day)

	Non-OPEC[a]											
	Angola		Australia		Bahama Islands		Brazil		Canada		China	
	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil
1973 Average	**49**	**49**	**2**	**0**	**174**	**0**	**9**	**0**	**1,325**	**1,001**	**(s)**	**0**
1974 Average	**49**	**48**	**1**	**0**	**164**	**0**	**2**	**0**	**1,070**	**791**	**0**	**0**
1975 Average	**75**	**71**	**5**	**0**	**152**	**0**	**5**	**0**	**846**	**600**	**0**	**0**
1976 Average	**12**	**7**	**2**	**0**	**118**	**0**	**0**	**0**	**599**	**371**	**0**	**0**
1977 Average	**24**	**17**	**3**	**0**	**171**	**0**	**0**	**0**	**517**	**279**	**0**	**0**
1978 Average	**20**	**6**	**5**	**0**	**160**	**0**	**0**	**0**	**467**	**248**	**0**	**0**
1979 Average	**43**	**39**	**6**	**0**	**147**	**0**	**1**	**0**	**538**	**271**	**13**	**13**
1980 Average	**42**	**37**	**1**	**0**	**78**	**0**	**3**	**1**	**455**	**199**	**(s)**	**0**
1981 Average	**49**	**45**	**5**	**0**	**74**	**0**	**23**	**14**	**447**	**164**	**18**	**0**
1982 Average	**44**	**42**	**5**	**(s)**	**65**	**0**	**47**	**19**	**482**	**214**	**40**	**8**
1983 Average	**78**	**71**	**4**	**0**	**125**	**0**	**41**	**2**	**547**	**274**	**34**	**6**
1984 Average	**90**	**85**	**38**	**25**	**88**	**0**	**60**	**(s)**	**630**	**341**	**46**	**15**
1985 Average	**110**	**104**	**37**	**21**	**40**	**0**	**61**	**0**	**770**	**468**	**59**	**36**
1986 Average	**112**	**102**	**41**	**30**	**37**	**0**	**50**	**0**	**807**	**570**	**90**	**68**
1987 Average	**192**	**180**	**58**	**49**	**37**	**0**	**84**	**0**	**848**	**608**	**82**	**63**
1988 Average	**212**	**203**	**64**	**59**	**32**	**0**	**98**	**0**	**999**	**681**	**88**	**82**
1989 Average	**284**	**279**	**36**	**31**	**34**	**0**	**82**	**0**	**931**	**630**	**80**	**76**
1990 Average	**237**	**236**	**53**	**47**	**37**	**0**	**49**	**0**	**934**	**643**	**80**	**77**
1991 Average	**254**	**254**	**26**	**21**	**35**	**0**	**22**	**0**	**1,033**	**743**	**91**	**87**
1992 Average	**336**	**336**	**19**	**17**	**36**	**0**	**20**	**0**	**1,069**	**797**	**90**	**84**
1993 Average	**336**	**336**	**19**	**18**	**28**	**0**	**33**	**0**	**1,181**	**900**	**51**	**50**
1994 Average	**331**	**322**	**17**	**16**	**29**	**0**	**31**	**1**	**1,272**	**983**	**65**	**64**
1995 January	273	262	21	21	6	0	1	0	1,345	1,011	64	62
February	348	335	22	22	8	0	0	0	1,311	965	21	21
March	427	416	0	0	7	0	0	0	1,208	891	54	54
April	412	402	33	33	0	0	0	0	1,243	999	65	65
May	419	407	21	21	0	0	0	0	1,406	1,167	35	35
June	371	358	10	10	0	0	0	0	1,420	1,169	26	26
July	295	287	42	42	0	0	8	0	1,279	1,028	80	80
August	367	355	0	0	0	0	9	0	1,345	1,058	40	40
September	444	444	0	0	8	0	43	0	1,252	959	73	73
October	366	366	15	15	0	0	9	0	1,300	1,057	40	40
November	318	318	(s)	0	0	0	12	0	1,403	1,069	66	66
December	366	366	23	23	0	0	12	0	1,471	1,099	73	73
Average	**367**	**360**	**16**	**16**	**2**	**0**	**8**	**0**	**1,332**	**1,040**	**53**	**53**
1996 January	312	312	21	21	0	0	1	0	1,466	1,094	86	86
February	195	195	0	0	0	0	4	0	1,392	1,007	42	42
March	257	257	0	0	9	0	1	0	1,295	975	53	53
April	244	233	22	22	0	0	(s)	0	1,408	1,011	18	18
May	403	379	22	22	0	0	7	0	1,373	1,056	19	19
June	356	356	56	47	1	0	10	0	1,391	1,091	37	37
July	292	292	11	0	0	0	20	0	1,392	1,093	78	78
August	480	456	43	43	0	0	32	0	1,387	1,040	73	73
September	391	391	47	27	0	0	13	0	1,276	1,000	64	64
October	502	485	79	65	0	0	1	0	1,400	1,059	36	36
November	353	353	35	25	0	0	1	0	1,524	1,151	104	104
December	420	405	39	21	0	0	3	0	1,675	1,232	78	78
Average	**351**	**344**	**31**	**25**	**1**	**0**	**8**	**0**	**1,415**	**1,068**	**57**	**57**
1997 January	485	485	21	21	0	0	1	0	1,508	1,137	84	84
February	422	422	0	0	13	0	0	0	1,548	1,127	50	50
March	467	461	37	37	0	0	4	0	1,412	1,103	120	120
April	435	422	22	22	0	0	0	0	1,448	1,071	46	46
4-Month Average	**453**	**448**	**20**	**20**	**3**	**0**	**1**	**0**	**1,478**	**1,109**	**76**	**76**
1996 4-Month Average	**253**	**250**	**11**	**11**	**2**	**0**	**2**	**0**	**1,390**	**1,022**	**50**	**50**
1995 4-Month Average	**365**	**354**	**19**	**19**	**5**	**0**	**0**	**0**	**1,276**	**966**	**52**	**51**

[a] Includes petroleum imported into the United States indirectly from members of the Organization of Petroleum Exporting Countries (OPEC), primarily from Caribbean and West European areas, as petroleum products that were refined from crude oil produced by OPEC.

(s)=Less than 500 barrels per day.

Notes: • Beginning in October 1977, Strategic Petroleum Reserve imports are included. • U.S. geographic coverage is the 50 States and the District of Columbia.

Sources: • **1973-1980:** Energy Information Administration (EIA), *Petroleum Supply Monthly,* February 1993, Table S3. • **1981-1996:** EIA, *Petroleum Supply Monthly,* May 1997, Table S3. • **1997:** EIA, *Petroleum Supply Monthly,* June 1997, Table S3.

Table 3.3f Petroleum Imports: Colombia, Ecuador, Gabon, Italy, Malaysia, and Mexico

(Thousand Barrels per Day)

	Non-OPEC[a]											
	Colombia		Ecuador[b]		Gabon[c]		Italy		Malaysia		Mexico	
	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil
1973 Average	**9**	**2**	**–**	**–**	**–**	**–**	**125**	**0**	**12**	**1**	**16**	**1**
1974 Average	**5**	**0**	**–**	**–**	**–**	**–**	**74**	**0**	**12**	**1**	**8**	**2**
1975 Average	**9**	**0**	**–**	**–**	**–**	**–**	**27**	**0**	**8**	**5**	**71**	**70**
1976 Average	**21**	**6**	**–**	**–**	**–**	**–**	**39**	**0**	**18**	**16**	**87**	**87**
1977 Average	**17**	**0**	**–**	**–**	**–**	**–**	**51**	**0**	**66**	**55**	**179**	**177**
1978 Average	**20**	**0**	**–**	**–**	**–**	**–**	**38**	**0**	**42**	**37**	**318**	**316**
1979 Average	**18**	**0**	**–**	**–**	**–**	**–**	**30**	**0**	**66**	**52**	**439**	**437**
1980 Average	**4**	**0**	**–**	**–**	**–**	**–**	**4**	**0**	**70**	**61**	**533**	**507**
1981 Average	**1**	**0**	**–**	**–**	**–**	**–**	**11**	**0**	**36**	**33**	**522**	**469**
1982 Average	**5**	**0**	**–**	**–**	**–**	**–**	**18**	**(s)**	**20**	**18**	**685**	**645**
1983 Average	**10**	**0**	**–**	**–**	**–**	**–**	**18**	**(s)**	**4**	**3**	**826**	**766**
1984 Average	**8**	**0**	**–**	**–**	**–**	**–**	**45**	**(s)**	**1**	**0**	**748**	**659**
1985 Average	**23**	**0**	**–**	**–**	**–**	**–**	**60**	**(s)**	**3**	**1**	**816**	**715**
1986 Average	**87**	**57**	**–**	**–**	**–**	**–**	**76**	**0**	**12**	**11**	**699**	**621**
1987 Average	**148**	**115**	**–**	**–**	**–**	**–**	**54**	**1**	**13**	**12**	**655**	**602**
1988 Average	**134**	**106**	**–**	**–**	**–**	**–**	**65**	**5**	**19**	**19**	**747**	**674**
1989 Average	**172**	**136**	**–**	**–**	**–**	**–**	**34**	**3**	**39**	**39**	**767**	**716**
1990 Average	**182**	**140**	**–**	**–**	**–**	**–**	**58**	**2**	**41**	**40**	**755**	**689**
1991 Average	**163**	**123**	**–**	**–**	**–**	**–**	**47**	**3**	**24**	**24**	**807**	**759**
1992 Average	**126**	**102**	**–**	**–**	**–**	**–**	**55**	**0**	**10**	**10**	**830**	**787**
1993 Average	**171**	**141**	**81**	**78**	**–**	**–**	**31**	**0**	**11**	**10**	**919**	**863**
1994 Average	**161**	**146**	**91**	**91**	**–**	**–**	**22**	**0**	**10**	**6**	**984**	**939**
1995 January	223	214	130	130	193	193	4	0	21	21	925	892
February	139	129	107	107	186	186	1	0	0	0	922	890
March	239	221	104	104	159	159	8	0	0	0	1,006	961
April	175	175	146	146	163	163	13	0	7	0	993	963
May	171	153	116	116	206	206	0	0	0	0	1,118	1,063
June	225	202	137	137	357	357	13	0	7	0	1,138	1,076
July	223	223	87	87	311	311	4	0	0	0	1,188	1,166
August	330	311	116	104	246	246	0	0	0	0	1,201	1,172
September	252	236	61	61	216	216	0	0	14	14	1,311	1,238
October	199	190	12	12	270	270	11	0	13	5	894	854
November	240	229	102	102	271	271	4	0	16	16	1,114	1,060
December	200	190	51	51	171	171	3	0	17	11	996	978
Average	**219**	**207**	**97**	**96**	**229**	**229**	**5**	**0**	**8**	**6**	**1,068**	**1,027**
1996 January	186	183	106	101	171	171	2	0	0	0	1,281	1,245
February	149	139	81	81	191	191	0	0	24	17	1,077	1,062
March	262	250	110	105	154	154	13	0	4	0	1,176	1,165
April	280	280	158	143	212	212	(s)	0	0	0	1,303	1,273
May	263	249	100	95	154	154	0	0	47	40	1,288	1,222
June	256	247	138	133	218	218	16	0	19	11	1,339	1,274
July	204	198	113	96	191	191	9	0	0	0	1,207	1,186
August	221	217	83	71	156	156	8	0	5	0	1,157	1,142
September	213	213	48	48	84	84	15	0	0	0	1,351	1,306
October	265	252	66	60	209	209	4	0	31	0	1,213	1,189
November	267	267	111	111	253	253	3	0	7	0	1,138	1,110
December	228	200	89	72	184	184	8	0	0	0	1,346	1,301
Average	**233**	**225**	**100**	**93**	**181**	**181**	**7**	**0**	**11**	**6**	**1,240**	**1,207**
1997 January	227	226	112	107	62	62	8	0	32	0	1,307	1,264
February	248	248	110	110	262	262	27	0	7	7	1,277	1,241
March	260	257	148	148	217	217	5	0	33	0	1,310	1,249
April	236	236	73	73	203	203	26	0	33	0	1,448	1,416
4-Month Average	**243**	**242**	**111**	**110**	**184**	**184**	**16**	**0**	**27**	**2**	**1,336**	**1,293**
1996 4-Month Average	**220**	**213**	**114**	**107**	**182**	**182**	**4**	**0**	**7**	**4**	**1,211**	**1,188**
1995 4-Month Average	**196**	**186**	**122**	**122**	**175**	**175**	**7**	**0**	**7**	**5**	**962**	**927**

[a] Includes petroleum imported into the United States indirectly from members of the Organization of Petroleum Exporting Countries (OPEC), primarily from Caribbean and West European areas, as petroleum products that were refined from crude oil produced by OPEC.

[b] Through 1992, Ecuador was a member of OPEC. See Table 3.3c.

[c] Through December 1994, Gabon was a member of OPEC. See Table 3.3c.

– =Not applicable. (s)=Less than 500 barrels per day.

Notes: • Beginning in October 1977, Strategic Petroleum Reserve imports are included. • U.S. geographic coverage is the 50 States and the District of Columbia.

Sources: • **1973-1980:** Energy Information Administration (EIA), *Petroleum Supply Monthly,* February 1993, Table S3. • **1981-1996:** EIA, *Petroleum Supply Monthly,* May 1997, Table S3. • **1997:** EIA, *Petroleum Supply Monthly,* June 1997, Table S3.

Table 3.3g Petroleum Imports: Netherlands, Netherlands Antilles, Norway, Puerto Rico, Russia, and Spain

(Thousand Barrels per Day)

	Non-OPEC[a]											
	Netherlands		Netherlands Antilles		Norway		Puerto Rico		Russia[b]		Spain	
	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil
1973 Average	**53**	**0**	**585**	**0**	**1**	**0**	**99**	**0**	**26**	**0**	**26**	**0**
1974 Average	**43**	**0**	**511**	**0**	**1**	**1**	**90**	**0**	**20**	**0**	**12**	**0**
1975 Average	**19**	**4**	**332**	**0**	**17**	**12**	**90**	**0**	**14**	**0**	**1**	**0**
1976 Average	**8**	**0**	**275**	**0**	**36**	**35**	**88**	**0**	**11**	**2**	**1**	**0**
1977 Average	**31**	**4**	**211**	**0**	**50**	**48**	**105**	**0**	**12**	**2**	**10**	**0**
1978 Average	**5**	**2**	**229**	**0**	**104**	**104**	**94**	**0**	**8**	**1**	**3**	**0**
1979 Average	**23**	**7**	**231**	**0**	**75**	**75**	**92**	**0**	**1**	**0**	**4**	**0**
1980 Average	**2**	**(s)**	**225**	**0**	**144**	**144**	**88**	**0**	**1**	**0**	**1**	**0**
1981 Average	**30**	**(s)**	**197**	**0**	**119**	**114**	**62**	**0**	**5**	**(s)**	**1**	**(s)**
1982 Average	**35**	**(s)**	**175**	**0**	**102**	**102**	**50**	**0**	**1**	**0**	**3**	**(s)**
1983 Average	**65**	**3**	**189**	**0**	**66**	**65**	**40**	**0**	**1**	**(s)**	**2**	**(s)**
1984 Average	**65**	**3**	**188**	**0**	**114**	**112**	**42**	**0**	**13**	**(s)**	**11**	**0**
1985 Average	**58**	**0**	**40**	**0**	**32**	**31**	**28**	**0**	**8**	**(s)**	**29**	**1**
1986 Average	**54**	**0**	**25**	**0**	**60**	**53**	**21**	**0**	**18**	**(s)**	**53**	**0**
1987 Average	**60**	**0**	**29**	**0**	**80**	**70**	**21**	**0**	**11**	**0**	**55**	**0**
1988 Average	**61**	**0**	**36**	**0**	**67**	**62**	**22**	**0**	**29**	**0**	**68**	**0**
1989 Average	**49**	**0**	**42**	**0**	**138**	**127**	**32**	**0**	**48**	**0**	**67**	**0**
1990 Average	**55**	**0**	**31**	**0**	**102**	**96**	**32**	**0**	**45**	**1**	**47**	**0**
1991 Average	**29**	**0**	**81**	**0**	**82**	**74**	**27**	**0**	**29**	**1**	**33**	**0**
1992 Average	**26**	**0**	**65**	**0**	**127**	**119**	**26**	**0**	**18**	**5**	**32**	**0**
1993 Average	**10**	**0**	**82**	**0**	**142**	**137**	**29**	**0**	**55**	**36**	**37**	**0**
1994 Average	**32**	**0**	**98**	**0**	**202**	**190**	**22**	**0**	**30**	**27**	**37**	**0**
1995 January	0	0	60	0	195	158	6	0	0	0	7	0
February	17	0	58	0	194	164	7	0	0	0	9	0
March	21	0	68	0	241	209	13	0	0	0	16	0
April	3	0	0	0	315	291	9	0	0	0	16	7
May	24	0	86	0	292	292	19	0	12	0	25	0
June	37	0	50	0	370	370	16	0	15	0	27	0
July	9	0	65	0	263	256	17	0	41	32	10	0
August	21	0	62	0	279	264	26	0	136	98	21	0
September	0	0	33	0	364	359	12	0	50	32	27	0
October	31	0	48	0	163	163	15	0	0	0	6	0
November	20	0	69	0	255	255	27	0	28	0	16	0
December	0	0	24	0	348	316	15	0	15	0	12	5
Average	**15**	**0**	**52**	**0**	**273**	**258**	**15**	**0**	**25**	**14**	**16**	**1**
1996 January	16	0	50	0	199	178	6	0	0	0	31	0
February	38	0	93	0	236	221	17	0	14	0	23	0
March	35	0	25	0	284	264	24	0	18	0	58	0
April	20	0	40	0	375	357	17	0	0	0	36	0
May	9	0	37	0	380	364	22	0	63	63	21	0
June	26	0	52	0	434	408	25	0	14	14	12	0
July	7	0	45	0	375	359	25	0	42	33	47	10
August	14	0	53	0	371	362	33	0	32	32	21	0
September	13	0	56	0	274	254	22	0	39	37	21	0
October	24	0	97	0	389	359	14	0	42	33	34	0
November	18	0	79	0	249	220	20	0	0	0	33	0
December	24	0	98	0	187	166	18	0	26	0	13	0
Average	**20**	**0**	**60**	**0**	**313**	**293**	**20**	**0**	**24**	**18**	**29**	**1**
1997 January	40	0	94	0	244	230	18	0	21	0	31	0
February	31	0	62	0	204	179	16	0	19	0	36	0
March	39	0	103	0	295	276	7	0	13	0	6	0
April	20	0	114	0	307	294	12	0	20	0	9	0
4-Month Average	**32**	**0**	**94**	**0**	**264**	**246**	**13**	**0**	**18**	**0**	**20**	**0**
1996 4-Month Average	**27**	**0**	**52**	**0**	**273**	**255**	**16**	**0**	**8**	**0**	**37**	**0**
1995 4-Month Average	**10**	**0**	**47**	**0**	**237**	**206**	**9**	**0**	**0**	**0**	**12**	**2**

[a] Includes petroleum imported into the United States indirectly from members of the Organization of Petroleum Exporting Countries (OPEC), primarily from Caribbean and West European areas, as petroleum products that were refined from crude oil produced by OPEC.

[b] Imports from other States in the former U.S.S.R. may be included in imports from Russia for the years 1973 through 1992.

(s)=Less than 500 barrels per day.

Notes: • Beginning in October 1977, Strategic Petroleum Reserve imports are included. • U.S. geographic coverage is the 50 States and the District of Columbia.

Sources: • **1973-1980:** Energy Information Administration (EIA), *Petroleum Supply Monthly,* February 1993, Table S3. • **1981-1996:** EIA, *Petroleum Supply Monthly,* May 1997, Table S3. • **1997:** EIA, *Petroleum Supply Monthly,* June 1997, Table S3.

Table 3.3h Petroleum Imports: Trinidad and Tobago, United Kingdom, Virgin Islands, Other Non-OPEC, Total Non-OPEC, and Total Imports

(Thousand Barrels per Day)

	Non-OPEC[a]										Total Imports	
	Trinidad and Tobago		United Kingdom		Virgin Islands		Other Non-OPEC[b]		Total[b,c]			
	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil
1973 Average	**255**	**60**	**15**	**0**	**329**	**0**	**153**	**36**	**3,263**	**1,149**	**6,256**	**3,244**
1974 Average	**251**	**63**	**8**	**0**	**391**	**0**	**122**	**30**	**2,832**	**937**	**6,112**	**3,477**
1975 Average	**242**	**115**	**14**	**(s)**	**406**	**0**	**120**	**14**	**2,454**	**893**	**6,056**	**4,105**
1976 Average	**274**	**104**	**31**	**13**	**422**	**0**	**203**	**101**	**2,247**	**742**	**7,313**	**5,287**
1977 Average	**289**	**134**	**126**	**97**	**466**	**0**	**287**	**157**	**2,614**	**971**	**8,807**	**6,615**
1978 Average	**253**	**142**	**180**	**169**	**428**	**0**	**239**	**146**	**2,612**	**1,172**	**8,363**	**6,356**
1979 Average	**190**	**123**	**202**	**197**	**431**	**0**	**269**	**192**	**2,819**	**1,407**	**8,456**	**6,519**
1980 Average	**176**	**115**	**176**	**173**	**388**	**0**	**219**	**162**	**2,609**	**1,399**	**6,909**	**5,263**
1981 Average	**133**	**102**	**375**	**369**	**327**	**0**	**236**	**163**	**2,672**	**1,474**	**5,996**	**4,396**
1982 Average	**112**	**92**	**456**	**441**	**316**	**0**	**306**	**174**	**2,968**	**1,754**	**5,113**	**3,488**
1983 Average	**96**	**83**	**382**	**365**	**282**	**0**	**378**	**215**	**3,189**	**1,853**	**5,051**	**3,329**
1984 Average	**94**	**87**	**402**	**378**	**294**	**0**	**411**	**210**	**3,388**	**1,914**	**5,437**	**3,426**
1985 Average	**113**	**98**	**310**	**278**	**247**	**0**	**394**	**137**	**3,237**	**1,888**	**5,067**	**3,201**
1986 Average	**125**	**93**	**350**	**317**	**244**	**0**	**426**	**144**	**3,387**	**2,065**	**6,224**	**4,178**
1987 Average	**106**	**75**	**352**	**304**	**272**	**0**	**459**	**196**	**3,617**	**2,274**	**6,678**	**4,674**
1988 Average	**97**	**71**	**315**	**254**	**242**	**0**	**487**	**196**	**3,882**	**2,411**	**7,402**	**5,107**
1989 Average	**94**	**73**	**215**	**160**	**321**	**0**	**457**	**197**	**3,921**	**2,467**	**8,061**	**5,843**
1990 Average	**96**	**76**	**189**	**155**	**282**	**0**	**417**	**180**	**3,721**	**2,381**	**8,018**	**5,894**
1991 Average	**88**	**72**	**138**	**106**	**243**	**0**	**282**	**137**	**3,535**	**2,405**	**7,627**	**5,782**
1992 Average	**95**	**70**	**230**	**200**	**249**	**0**	**335**	**149**	**3,796**	**2,676**	**7,888**	**6,083**
1993 Average	**74**	**55**	**350**	**312**	**254**	**0**	**452**	**240**	**[c]4,347**	**[c]3,178**	**8,620**	**6,787**
1994 Average	**77**	**62**	**458**	**396**	**328**	**0**	**450**	**239**	**4,749**	**3,483**	**8,996**	**7,063**
1995 January	91	91	240	213	283	0	209	131	4,297	3,397	8,015	6,505
February	58	58	382	359	322	0	304	143	4,416	3,378	8,345	6,546
March	70	70	663	621	298	0	183	91	4,787	3,797	9,006	7,391
April	55	55	491	450	284	0	317	143	4,741	3,894	8,465	7,038
May	61	53	405	366	203	0	286	165	4,907	4,044	8,709	7,325
June	78	74	520	418	268	0	368	253	5,453	4,451	9,558	7,927
July	73	54	137	97	240	0	441	277	4,812	3,940	8,863	7,265
August	74	53	288	249	264	0	343	261	5,168	4,212	9,061	7,437
September	73	55	427	386	223	0	312	180	5,194	4,254	9,736	8,007
October	86	70	528	479	299	0	331	214	4,635	3,735	8,577	7,075
November	61	53	284	284	317	0	273	155	4,896	3,878	9,074	7,302
December	53	53	238	177	334	0	262	156	4,684	3,671	8,612	6,916
Average	**70**	**62**	**383**	**341**	**278**	**0**	**302**	**181**	**4,833**	**3,889**	**8,835**	**7,230**
1996 January	92	71	354	238	390	0	391	188	5,163	3,889	9,272	7,260
February	56	56	374	280	343	0	249	142	4,598	3,433	8,287	6,553
March	58	52	346	252	311	0	340	182	4,834	3,709	8,967	7,136
April	87	55	479	347	359	0	296	121	5,354	4,070	9,357	7,316
May	90	71	413	316	298	0	429	282	5,439	4,332	9,914	8,029
June	86	54	312	234	292	0	561	402	5,653	4,526	9,920	7,958
July	70	58	244	195	344	0	456	292	5,174	4,082	9,752	7,771
August	77	59	232	177	279	0	473	328	5,228	4,155	9,866	8,020
September	51	37	154	90	268	0	502	318	4,903	3,871	9,078	7,333
October	65	55	228	136	325	0	464	240	5,489	4,179	9,747	7,683
November	85	75	195	160	253	0	494	318	5,222	4,145	9,143	7,344
December	58	54	243	167	294	0	417	245	5,449	4,124	9,412	7,322
Average	**73**	**58**	**298**	**216**	**313**	**0**	**423**	**255**	**5,211**	**4,045**	**9,399**	**7,482**
1997 January	62	55	400	333	335	0	464	173	5,557	4,176	9,633	7,393
February	69	61	239	172	331	0	380	170	5,352	4,049	9,475	7,384
March	56	55	236	161	254	0	411	180	5,433	4,263	9,712	7,665
April	69	62	124	35	321	0	401	242	5,366	4,123	9,934	7,810
4-Month Average	**64**	**58**	**251**	**176**	**310**	**0**	**415**	**192**	**5,429**	**4,156**	**9,692**	**7,565**
1996 4-Month Average	**73**	**58**	**388**	**279**	**351**	**0**	**320**	**159**	**4,991**	**3,778**	**8,979**	**7,072**
1995 4-Month Average	**69**	**69**	**445**	**412**	**296**	**0**	**252**	**126**	**4,562**	**3,620**	**8,460**	**6,877**

[a] Includes petroleum imported into the United States indirectly from members of the Organization of Petroleum Exporting Countries (OPEC), primarily from Caribbean and West European areas, as petroleum products that were refined from crude oil produced by OPEC.

[b] Includes Bahrain, which is shown on Table 3.3a.

[c] As of January 1993, includes petroleum imported from Ecuador, which withdrew from OPEC on December 31, 1992. As of January 1995, includes petroleum imported from Gabon, which withdrew from OPEC on December 31, 1994.

(s)=Less than 500 barrels per day.

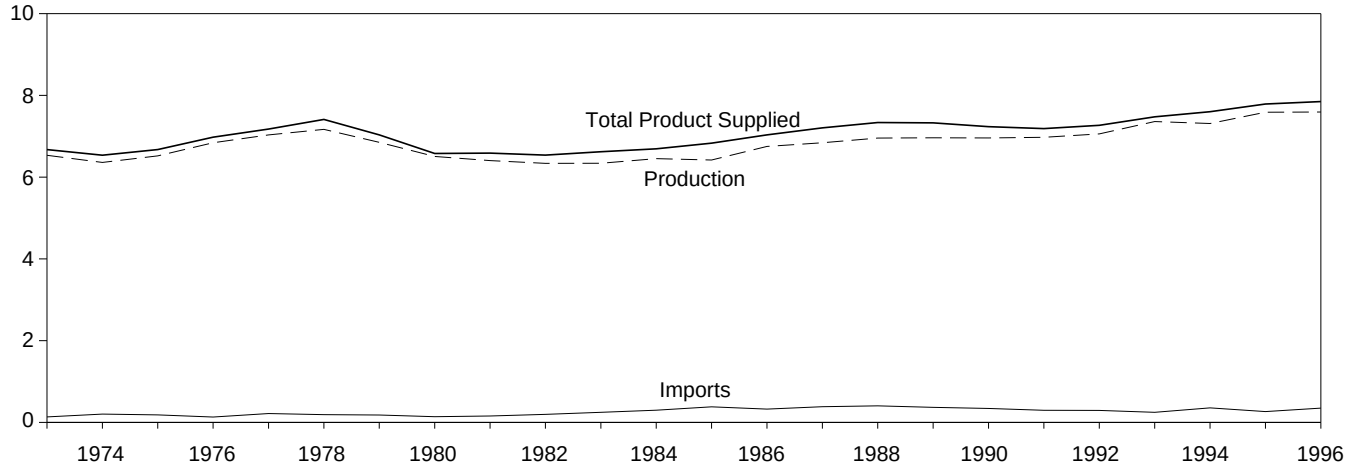
Notes: • Beginning in October 1977, Strategic Petroleum Reserve imports are included. • Totals may not equal sum of components due to independent rounding. • U.S. geographic coverage is the 50 States and the District of Columbia.

Sources: • **1973-1980:** Energy Information Administration (EIA), *Petroleum Supply Monthly,* February 1993, Table S3. • **1981-1996:** EIA, *Petroleum Supply Monthly,* May 1997, Table S3. • **1997:** EIA, *Petroleum Supply Monthly,* June 1997, Table S3.

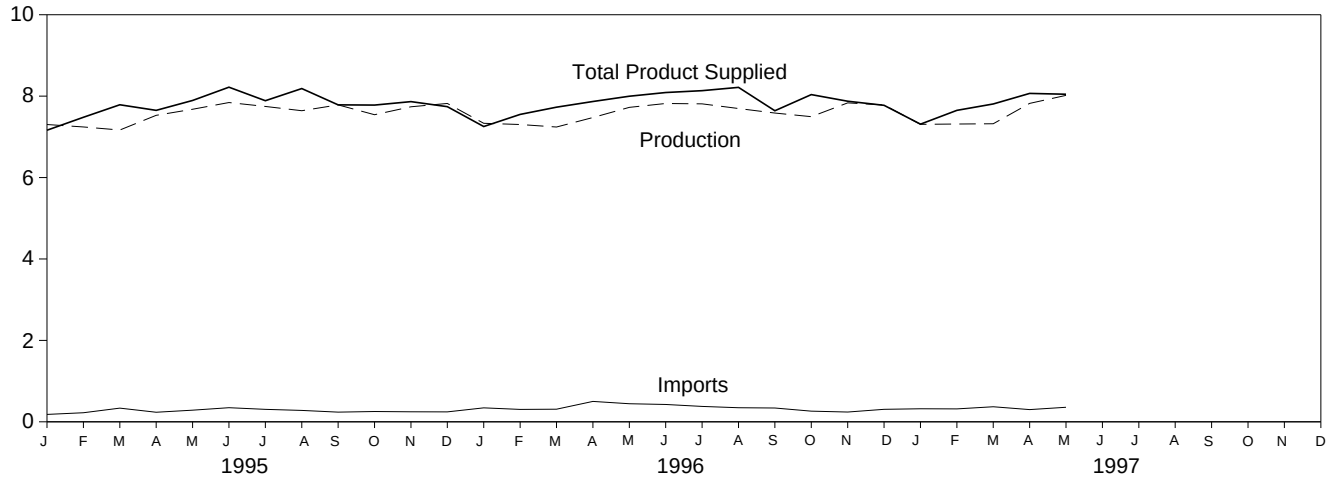
Figure 3.2 Finished Motor Gasoline

(Million Barrels per Day, Except as Noted)

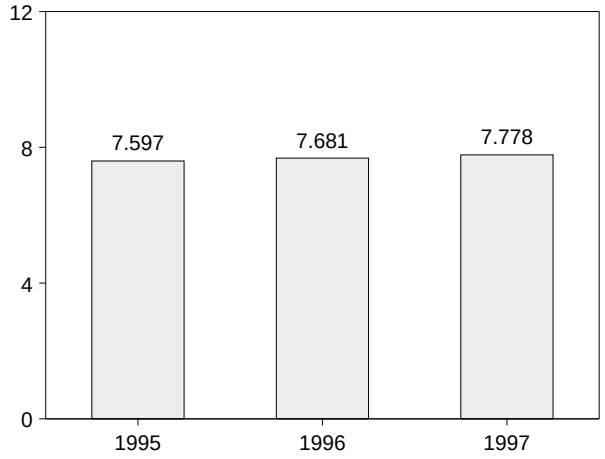
Overview, 1973-1996



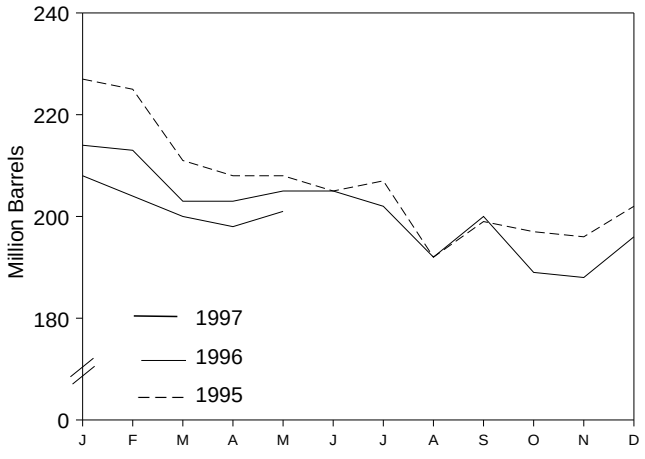
Overview, Monthly



Product Supplied, January-May



Stocks, End of Month



Note: Because vertical scales differ, graphs should not be compared.
Source: Table 3.4.

Table 3.4 Finished Motor Gasoline Supply and Disposition

	Supply		Disposition			Motor Gasoline Ending Stocks[a]		Oxygenates Ending Stocks[a]
	Total Production	Imports[b]	Stock Change[b,c]	Exports	Product Supplied	Total[d]	Finished	
	Thousand Barrels per Day					Million Barrels		
1973 Average	**6,535**	**134**	**-9**	**4**	**6,674**	**209**	**NA**	**NA**
1974 Average	**6,360**	**204**	**24**	**2**	**6,537**	**[e]218**	**NA**	**NA**
1975 Average	**6,520**	**184**	**[e]28**	**2**	**6,675**	**235**	**NA**	**NA**
1976 Average	**6,841**	**131**	**-10**	**3**	**6,978**	**231**	**NA**	**NA**
1977 Average	**7,033**	**217**	**72**	**2**	**7,177**	**258**	**NA**	**NA**
1978 Average	**7,169**	**190**	**-54**	**1**	**7,412**	**238**	**NA**	**NA**
1979 Average	**6,852**	**181**	**-2**	**(s)**	**7,034**	**237**	**NA**	**NA**
1980 Average	**6,506**	**140**	**66**	**1**	**6,579**	**[e]261**	**NA**	**NA**
1981 Average[f]	**6,405**	**157**	**[e]-28**	**2**	**6,588**	**253**	**203**	**NA**
1982 Average	**6,338**	**197**	**-25**	**20**	**6,539**	**[e]235**	**[e]194**	**NA**
1983 Average	**6,340**	**247**	**[e]-45**	**10**	**6,622**	**222**	**186**	**NA**
1984 Average	**6,453**	**299**	**54**	**6**	**6,693**	**243**	**205**	**NA**
1985 Average	**6,419**	**381**	**-41**	**10**	**6,831**	**223**	**190**	**NA**
1986 Average	**6,752**	**326**	**11**	**33**	**7,034**	**233**	**194**	**NA**
1987 Average	**6,841**	**384**	**-15**	**35**	**7,206**	**226**	**189**	**NA**
1988 Average	**6,956**	**405**	**3**	**22**	**7,336**	**228**	**190**	**NA**
1989 Average	**6,963**	**369**	**-35**	**39**	**7,328**	**213**	**177**	**NA**
1990 Average	**6,959**	**342**	**10**	**55**	**7,235**	**220**	**181**	**NA**
1991 Average	**6,975**	**297**	**3**	**82**	**7,188**	**219**	**182**	**NA**
1992 Average	**7,058**	**294**	**-11**	**96**	**7,268**	**216**	**178**	**NA**
1993 Average	**[g]7,360**	**247**	**26**	**105**	**[g]7,476**	**226**	**187**	**[h]13**
1994 Average	**7,312**	**356**	**-31**	**97**	**7,601**	**215**	**176**	**17**
1995 January	7,303	182	221	100	7,163	227	183	16
February	7,243	223	-99	84	7,481	225	180	16
March	7,168	336	-391	107	7,788	211	168	15
April	7,529	235	-26	139	7,651	208	167	15
May	7,678	286	3	67	7,894	208	167	15
June	7,843	347	-122	91	8,220	205	163	14
July	7,747	306	80	86	7,888	207	166	15
August	7,642	280	-367	103	8,187	192	155	16
September	7,785	238	143	94	7,786	199	159	15
October	7,544	253	-106	121	7,781	197	156	14
November	7,739	246	1	118	7,866	196	156	11
December	7,821	244	182	141	7,742	202	161	12
Average	**7,588**	**265**	**-40**	**104**	**7,789**	**202**	**161**	**12**
1996 January	7,333	343	260	163	7,254	214	169	12
February	7,303	305	-16	72	7,552	213	169	12
March	7,242	310	-304	128	7,729	203	159	13
April	7,475	501	30	77	7,869	203	160	13
May	7,724	444	90	81	7,998	205	163	12
June	7,820	426	62	95	8,089	205	165	11
July	7,811	378	-68	123	8,135	202	163	11
August	7,696	346	-256	82	8,216	192	155	12
September	7,585	339	216	68	7,641	200	161	11
October	7,496	262	-393	113	8,038	189	149	11
November	7,835	240	71	128	7,875	188	151	12
December	7,784	307	199	117	7,775	196	157	13
Average	**7,593**	**350**	**-10**	**104**	**7,849**	**196**	**157**	**13**
1997 January	7,308	320	240	75	7,312	208	165	13
February	7,315	317	-130	111	7,651	204	161	13
March	7,322	370	-240	123	7,808	200	154	13
April	[R]7,822	[R]300	[R]-62	[R]117	[R]8,067	[R]198	[R]152	13
May	[E]8,019	[E]357	[E]223	[E]105	[E]8,047	[E]201	[E]156	NA
5-Month Average	**[E]7,560**	**[E]333**	**[E]9**	**[E]106**	**[E]7,778**	**[E]201**	**[E]156**	**NA**
1996 5-Month Average	**7,417**	**381**	**12**	**105**	**7,681**	**205**	**163**	**12**
1995 5-Month Average	**7,386**	**253**	**-58**	**99**	**7,597**	**208**	**167**	**15**

[a] Stocks are totals as of end of period.
[b] From 1981 forward, blending components are excluded.
[c] A negative number indicates a decrease in stocks and a positive number indicates an increase.
[d] Includes motor gasoline blending components and gasohol, but excludes oxygenates, which are reported separately.
[e] See Note 4 at end of section.
[f] See Note 2 at end of section.
[g] Beginning in 1993, motor gasoline production and product supplied include blending of fuel ethanol and an adjustment to correct for the imbalance of motor gasoline blending components. See Note 2 at end of section.
[h] See Note 1 at end of section.

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

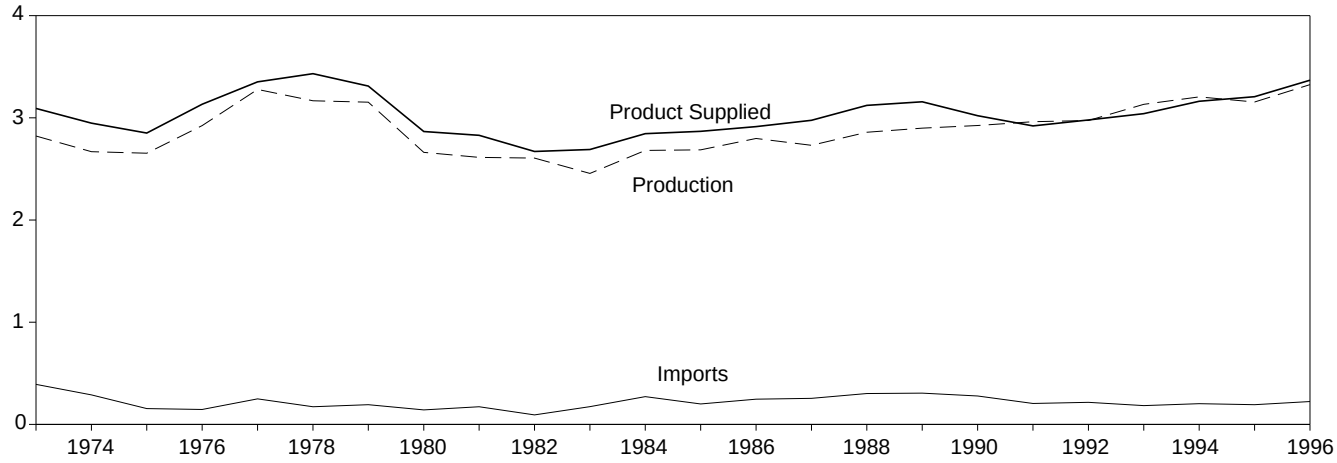
Note: Geographic coverage is the 50 States and the District of Columbia.

Sources: • **1973-1980:** Energy Information Administration (EIA), *Petroleum Supply Monthly,* February 1993, Table S4. • **1981-1996:** EIA, *Petroleum Supply Monthly,* May 1997, Table S4. • **1997:** EIA, *Petroleum Supply Monthly,* June 1997, Table S4.

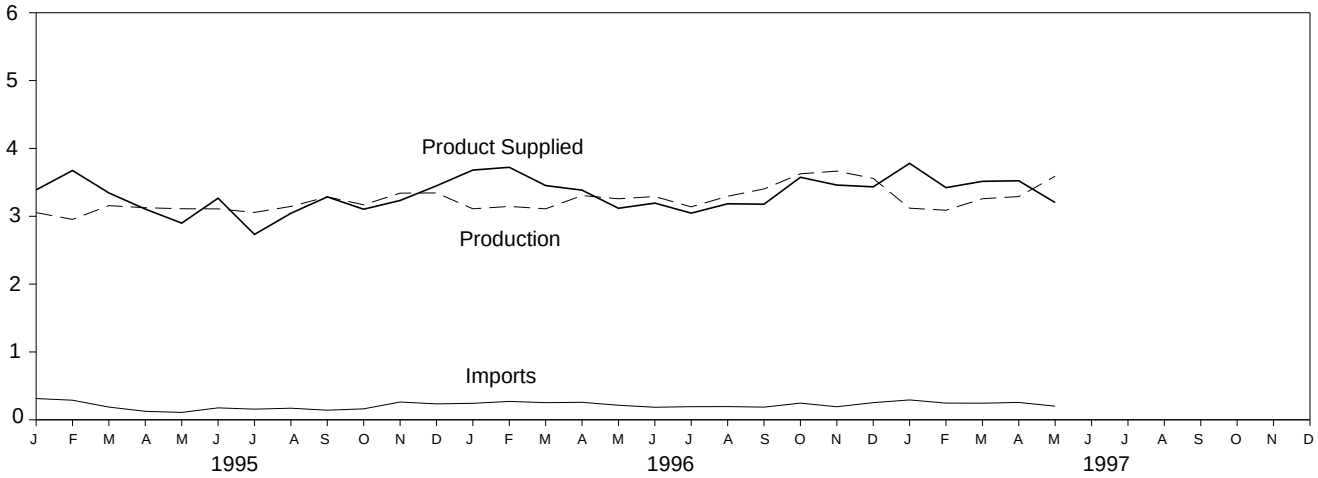
Figure 3.3 Distillate Fuel

(Million Barrels per Day, Except as Noted)

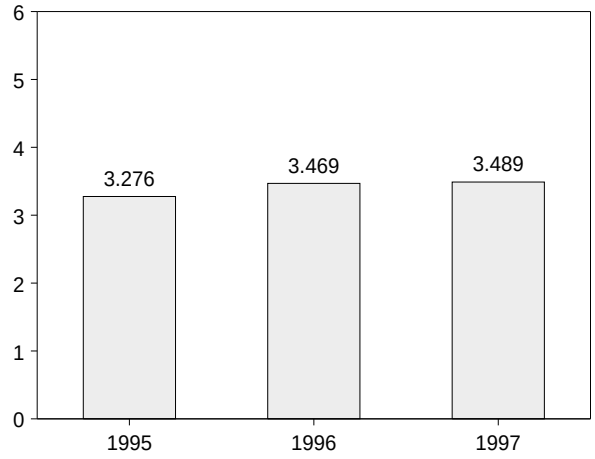
Overview, 1973-1996



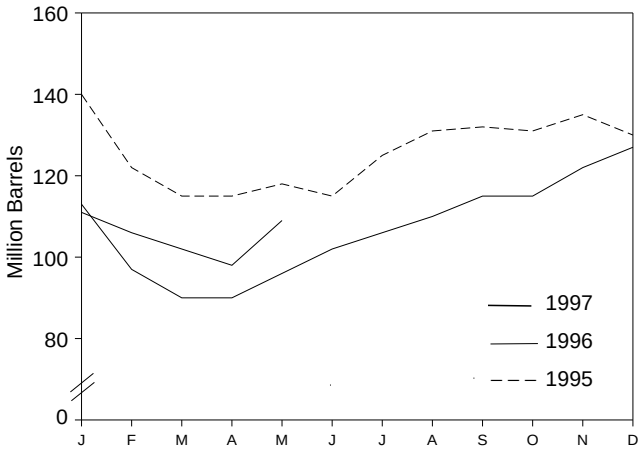
Overview, Monthly



Product Supplied, January-May



Stocks, End of Month



Source: Table 3.5.

Table 3.5 Distillate Fuel Oil Supply and Disposition

	Supply			Disposition			Ending Stocks[a]		
								Sulfur Content	
	Total Production	Imports	Crude Oil Used Directly[b]	Stock Change[c]	Exports	Product Supplied[b]	Total	0.05 Percent or Less[d]	Greater Than 0.05 Percent[d]
	Thousand Barrels per Day						Million Barrels		
1973 Average	**2,822**	**392**	**2**	**115**	**9**	**3,092**	**196**	**NA**	**NA**
1974 Average	**2,669**	**289**	**2**	[e] **10**	**2**	**2,948**	[f] **200**	**NA**	**NA**
1975 Average	**2,654**	**155**	**2**	[e,f] **-41**	**1**	**2,851**	**209**	**NA**	**NA**
1976 Average	**2,924**	**146**	**1**	**-62**	**1**	**3,133**	**186**	**NA**	**NA**
1977 Average	**3,278**	**250**	**1**	**176**	**1**	**3,352**	**250**	**NA**	**NA**
1978 Average	**3,167**	**173**	**1**	**-93**	**3**	**3,432**	**216**	**NA**	**NA**
1979 Average	**3,153**	**193**	**1**	**34**	**3**	**3,311**	**229**	**NA**	**NA**
1980 Average	**2,662**	**142**	**1**	**-64**	**3**	**2,866**	[f] **205**	**NA**	**NA**
1981 Average[g]	**2,613**	**173**	**10**	[f] **-38**	**5**	**2,829**	**192**	**NA**	**NA**
1982 Average	**2,606**	**93**	**10**	**-35**	**74**	**2,671**	[f] **179**	**NA**	**NA**
1983 Average	**2,456**	**174**	**–**	[f] **-124**	**64**	**2,690**	**140**	**NA**	**NA**
1984 Average	**2,681**	**272**	**–**	**57**	**51**	**2,845**	**161**	**NA**	**NA**
1985 Average	**2,687**	**200**	**–**	**-48**	**67**	**2,868**	**144**	**NA**	**NA**
1986 Average	**2,798**	**247**	**–**	**31**	**100**	**2,914**	**155**	**NA**	**NA**
1987 Average	**2,731**	**255**	**–**	**-56**	**66**	**2,976**	**134**	**NA**	**NA**
1988 Average	**2,859**	**302**	**–**	**-30**	**69**	**3,122**	**124**	**NA**	**NA**
1989 Average	**2,899**	**306**	**–**	**-49**	**97**	**3,157**	**106**	**NA**	**NA**
1990 Average	**2,925**	**278**	**–**	**73**	**109**	**3,021**	**132**	**NA**	**NA**
1991 Average	**2,962**	**205**	**–**	**31**	**215**	**2,921**	**144**	**NA**	**NA**
1992 Average	**2,974**	**216**	**–**	**-8**	**219**	**2,979**	**141**	**NA**	**NA**
1993 Average	**3,132**	**184**	**–**	**1**	**274**	**3,041**	**141**	[g] **64**	[g] **77**
1994 Average	**3,205**	**203**	**–**	**12**	**234**	**3,162**	**145**	**73**	**73**
1995 January	3,054	313	–	-163	141	3,389	140	70	70
February	2,954	289	–	-645	212	3,675	122	63	59
March	3,157	188	–	-216	216	3,344	115	59	56
April	3,126	125	–	-27	172	3,106	115	62	53
May	3,111	109	–	119	202	2,899	118	62	56
June	3,109	176	–	-119	137	3,267	115	60	55
July	3,056	157	–	333	148	2,732	125	62	63
August	3,145	171	–	189	84	3,044	131	62	69
September	3,287	142	–	28	116	3,285	132	64	68
October	3,169	162	–	-11	238	3,104	131	61	70
November	3,341	262	–	135	236	3,233	135	65	70
December	3,344	235	–	-168	298	3,449	130	67	63
Average	**3,155**	**193**	**–**	**-41**	**183**	**3,207**	**130**	**67**	**63**
1996 January	3,110	243	–	-544	216	3,681	113	58	55
February	3,145	271	–	-561	256	3,722	97	53	44
March	3,110	253	–	-229	139	3,453	90	49	40
April	3,305	258	–	12	166	3,385	90	52	38
May	3,258	215	–	178	176	3,118	96	57	38
June	3,291	185	–	201	81	3,194	102	60	41
July	3,139	194	–	153	134	3,046	106	62	45
August	3,295	195	–	124	182	3,184	110	62	49
September	3,403	187	–	156	256	3,178	115	63	51
October	3,626	246	–	-3	300	3,575	115	60	55
November	3,665	192	–	226	171	3,460	122	65	57
December	3,558	253	–	170	206	3,434	127	69	58
Average	**3,325**	**224**	**–**	**-9**	**190**	**3,368**	**127**	**69**	**58**
1997 January	3,119	293	–	-502	133	3,780	111	60	51
February	3,089	246	–	-193	107	3,422	106	57	49
March	3,258	245	–	-133	120	3,515	102	59	43
April	[R] 3,291	[R] 256	–	[R] -142	[R] 166	[R] 3,523	[R] 98	[R] 59	[R] 39
May	[E] 3,590	[E] 201	–	[E] 399	[E] 192	[E] 3,202	[E] 109	[E] 64	[E] 45
5-Month Average	[E] **3,273**	[E] **248**	**–**	[E] **-112**	[E] **144**	[E] **3,489**	[E] **109**	[E] **64**	[E] **45**
1996 5-Month Average	**3,185**	**248**	**–**	**-226**	**190**	**3,469**	**96**	**57**	**38**
1995 5-Month Average	**3,083**	**204**	**–**	**-178**	**188**	**3,276**	**118**	**62**	**56**

[a] Stocks are totals as of end of period.
[b] Beginning in January 1983, crude oil used directly as distillate fuel oil is reported as crude oil product supplied on Table 3.2b rather than as distillate fuel oil product supplied.
[c] A negative number indicates a decrease in stocks and a positive number indicates an increase.
[d] By weight.
[e] See Note 6 at end of section.
[f] See Note 4 at end of section.
[g] See Note 3 at end of section.

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

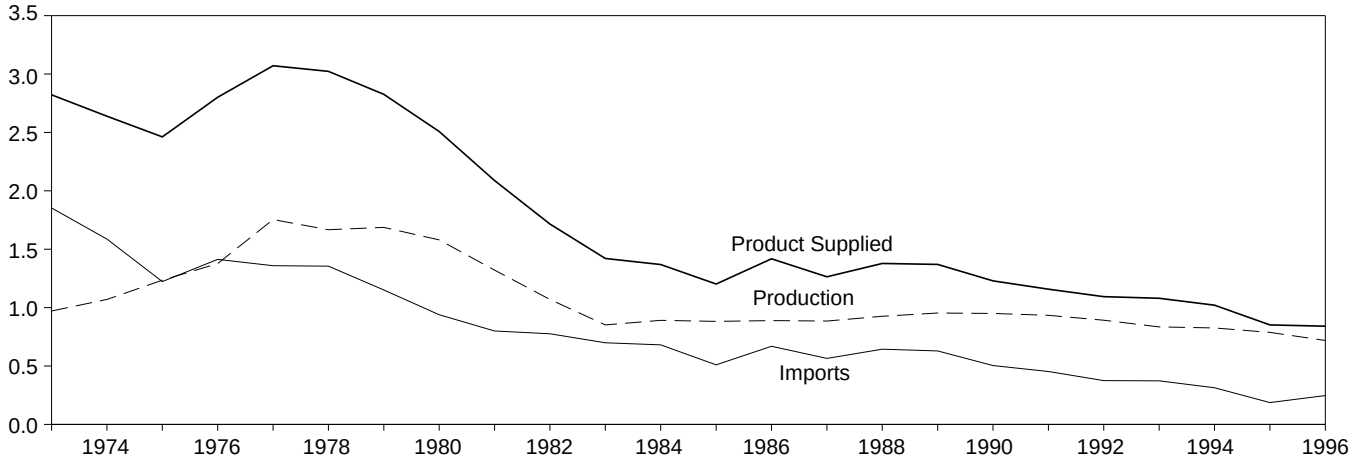
Notes: • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Sources: • **1973-1980:** Energy Information Administration (EIA), *Petroleum Supply Monthly,* February 1993, Table S5. • **1981-1996:** EIA, *Petroleum Supply Monthly,* May 1997, Table S5. • **1997:** EIA, *Petroleum Supply Monthly,* June 1997, Table S5.

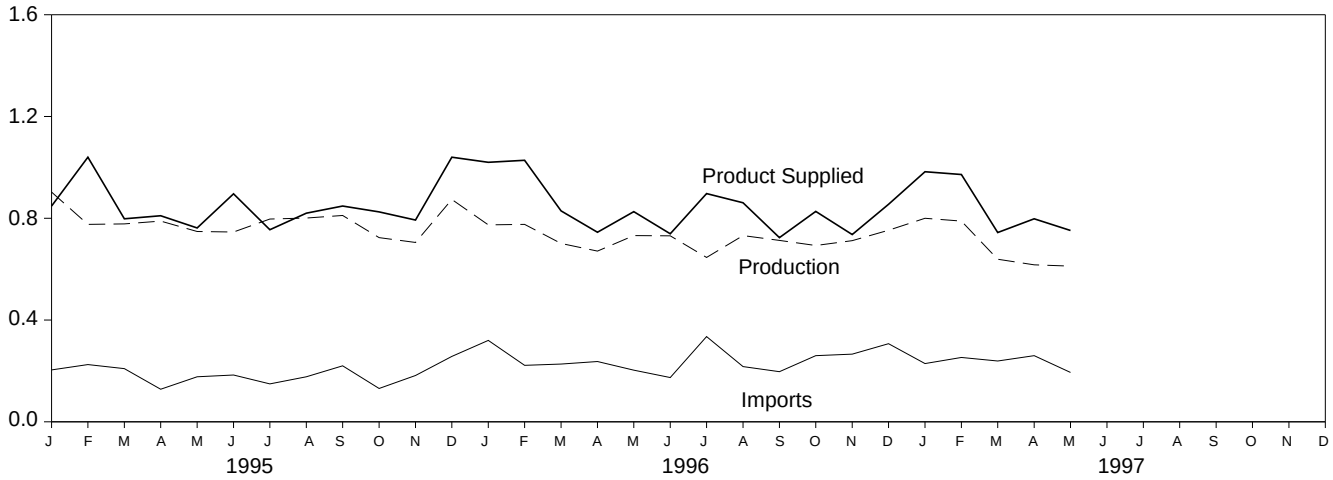
Figure 3.4 Residual Fuel

(Million Barrels per Day, Except as Noted)

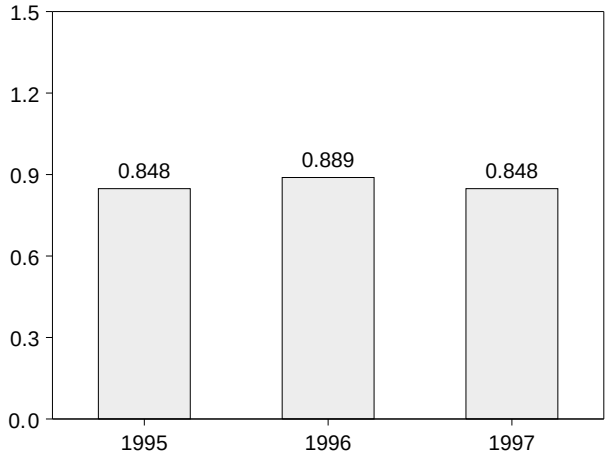
Overview, 1973-1996



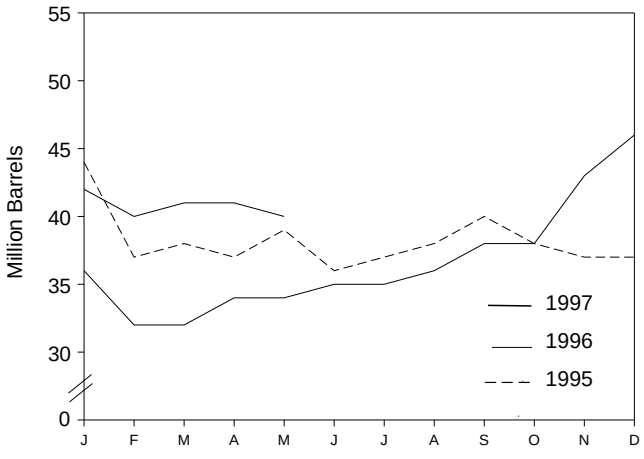
Overview, Monthly



Product Supplied, January-May



Stocks, End of Month



Note: Because vertical scales differ, graphs should not be compared.
Source: Table 3.6.

Table 3.6 Residual Fuel Oil Supply and Disposition

	Supply			Disposition			
	Total Production	Imports	Crude Oil Used Directly[a]	Stock Change[b]	Exports	Product Supplied[a]	Ending Stocks[c]
	Thousand Barrels per Day						Million Barrels
1973 Average	**971**	**1,853**	**17**	**-5**	**23**	**2,822**	**53**
1974 Average	**1,070**	**1,587**	**13**	**17**	**14**	**2,639**	[d] **60**
1975 Average	**1,235**	**1,223**	**15**	[d] **-2**	**15**	**2,462**	**74**
1976 Average	**1,377**	**1,413**	**17**	**-5**	**12**	**2,801**	**72**
1977 Average	**1,754**	**1,359**	**13**	**48**	**6**	**3,071**	**90**
1978 Average	**1,667**	**1,355**	**13**	**1**	**13**	**3,023**	**90**
1979 Average	**1,687**	**1,151**	**12**	**15**	**9**	**2,826**	**96**
1980 Average	**1,580**	**939**	**12**	**-10**	**33**	**2,508**	[d] **92**
1981 Average[e]	**1,321**	**800**	**48**	[d] **-37**	**118**	**2,088**	**78**
1982 Average	**1,070**	**776**	**48**	**-32**	**209**	**1,716**	[d] **66**
1983 Average	**852**	**699**	**–**	[d] **-55**	**185**	**1,421**	**49**
1984 Average	**891**	**681**	**–**	**12**	**190**	**1,369**	**53**
1985 Average	**882**	**510**	**–**	**-7**	**197**	**1,202**	**50**
1986 Average	**889**	**669**	**–**	**-8**	**147**	**1,418**	**47**
1987 Average	**885**	**565**	**–**	**(s)**	**186**	**1,264**	**47**
1988 Average	**926**	**644**	**–**	**-8**	**200**	**1,378**	**45**
1989 Average	**954**	**629**	**–**	**-2**	**215**	**1,370**	**44**
1990 Average	**950**	**504**	**–**	**13**	**211**	**1,229**	**49**
1991 Average	**934**	**453**	**–**	**4**	**226**	**1,158**	**50**
1992 Average	**892**	**375**	**–**	**-20**	**193**	**1,094**	**43**
1993 Average	**835**	**373**	**–**	**4**	**123**	**1,080**	**44**
1994 Average	**826**	**314**	**–**	**-6**	**125**	**1,021**	**42**
1995 January	903	204	–	56	203	848	44
February	776	225	–	-246	208	1,040	37
March	778	209	–	35	154	798	38
April	789	128	–	-22	129	810	37
May	748	177	–	48	115	762	39
June	746	184	–	-87	120	896	36
July	797	149	–	27	164	755	37
August	801	177	–	36	122	820	38
September	811	220	–	58	124	848	40
October	724	131	–	-55	84	825	38
November	705	182	–	-17	111	793	37
December	874	257	–	-8	98	1,040	37
Average	**788**	**187**	**–**	**-13**	**136**	**852**	**37**
1996 January	774	320	–	-34	108	1,020	36
February	776	222	–	-144	114	1,028	32
March	701	227	–	5	95	829	32
April	671	237	–	66	96	745	34
May	732	203	–	20	89	826	34
June	731	174	–	22	144	739	35
July	646	335	–	-5	88	897	35
August	732	217	–	32	56	861	36
September	713	197	–	61	125	724	38
October	693	260	–	22	104	827	38
November	712	266	–	142	101	736	43
December	753	307	–	103	102	855	46
Average	**719**	**247**	**–**	**24**	**102**	**841**	**46**
1997 January	800	229	–	-124	171	983	42
February	789	253	–	-68	137	972	40
March	639	239	–	45	89	744	41
April	[R] 617	[R] 260	–	[R] -27	[R] 105	[R] 798	[R] 41
May	[E] 612	[E] 194	–	[E] -57	[E] 111	[E] 752	[E] 40
5-Month Average	[E] **690**	[E] **235**	**–**	[E] **-46**	[E] **123**	[E] **848**	[E] **40**
1996 5-Month Average	**731**	**242**	**–**	**-16**	**100**	**889**	**34**
1995 5-Month Average	**799**	**188**	**–**	**-22**	**161**	**848**	**39**

[a] Beginning in January 1983, crude oil used directly as residual fuel oil is reported as crude oil product supplied on Table 3.2b rather than as residual fuel oil product supplied.

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

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

[d] See Note 4 at end of section.

[e] See Note 3 at end of section.

R=Revised data. – =Not applicable. E=Estimate. (s)=Less than +500 barrels per day and greater than -500 barrels per day.

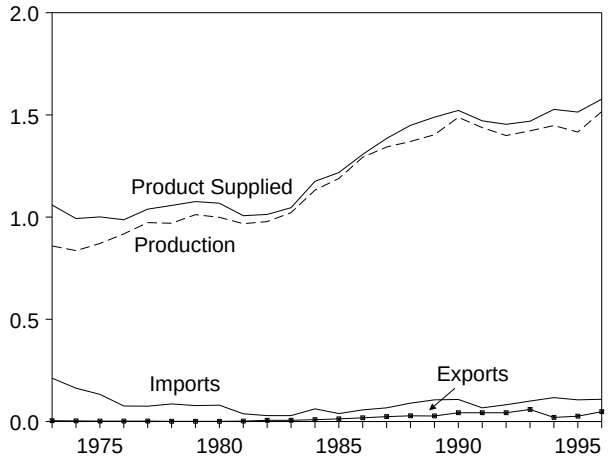
Note: Geographic coverage is the 50 States and the District of Columbia.

Sources: • **1973-1980:** Energy Information Administration (EIA), *Petroleum Supply Monthly,* February 1993, Table S6. • **1981-1996:** EIA, *Petroleum Supply Monthly,* May 1997, Table S6. • **1997:** EIA, *Petroleum Supply Monthly,* June 1997, Table S6.

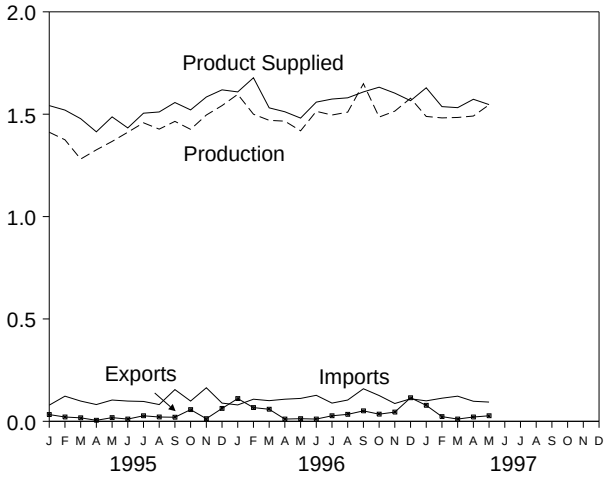
Figure 3.5 Jet Fuel

(Million Barrels per Day, Except as Noted)

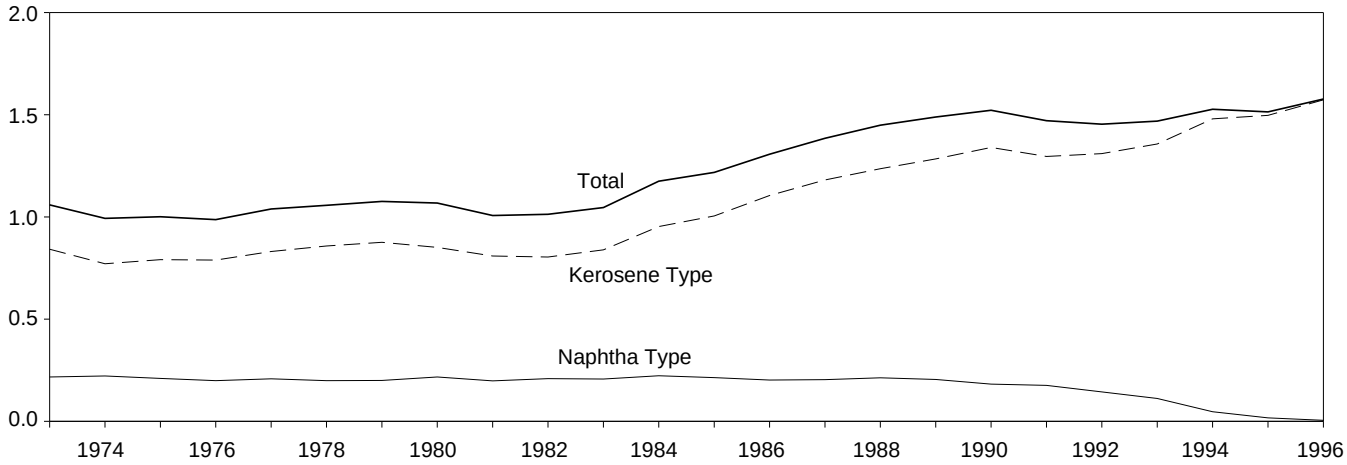
Overview, 1973-1996



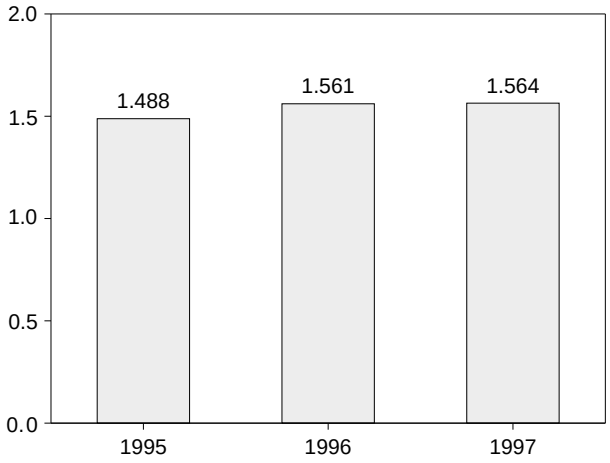
Overview, Monthly



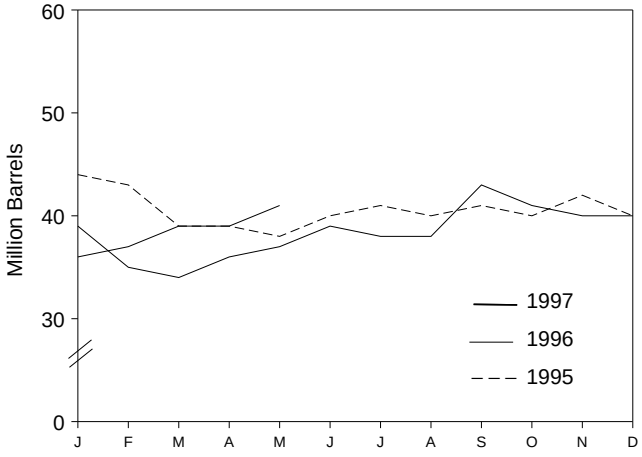
Product Supplied by Type, 1973-1996



Product Supplied, January-May



Stocks, End of Month



Source: Table 3.7.

Table 3.7 Jet Fuel Supply and Disposition

	Supply			Disposition					
	Production					Product Supplied		Ending Stocks[a]	
	Total	Kerosene Type	Imports	Stock Change[b]	Exports	Total	Kerosene Type	Total	Kerosene Type
	Thousand Barrels per Day							Million Barrels	
1973 Average	**859**	**679**	**212**	**8**	**4**	**1,059**	**842**	**29**	**23**
1974 Average	**836**	**641**	**163**	**2**	**3**	**993**	**771**	[c] **29**	[c] **24**
1975 Average	**871**	**691**	**133**	[c] **2**	**2**	**1,001**	**791**	**30**	**25**
1976 Average	**918**	**731**	**76**	**5**	**2**	**987**	**789**	**32**	**26**
1977 Average	**973**	**787**	**75**	**7**	**2**	**1,039**	**831**	**35**	**28**
1978 Average	**970**	**791**	**86**	**-2**	**1**	**1,057**	**858**	**34**	**28**
1979 Average	**1,012**	**835**	**78**	**13**	**1**	**1,076**	**876**	**39**	**33**
1980 Average	**999**	**811**	**80**	**10**	**1**	**1,068**	**851**	[c] **42**	[c] **36**
1981 Average	**968**	**775**	**38**	[c] **-4**	**2**	**1,007**	**809**	**41**	**34**
1982 Average	**978**	**778**	**29**	**-12**	**6**	**1,013**	**804**	[c] **37**	[c] **31**
1983 Average	**1,022**	**817**	**29**	[c] **(s)**	**6**	**1,046**	**839**	**39**	**32**
1984 Average	**1,132**	**919**	**62**	**9**	**9**	**1,175**	**953**	**42**	**35**
1985 Average	**1,189**	**983**	**39**	**-4**	**13**	**1,218**	**1,005**	**40**	**34**
1986 Average	**1,293**	**1,097**	**57**	**25**	**18**	**1,307**	**1,105**	**50**	**43**
1987 Average	**1,343**	**1,138**	**67**	**(s)**	**24**	**1,385**	**1,181**	**50**	**42**
1988 Average	**1,370**	**1,164**	**90**	**-17**	**28**	**1,449**	**1,236**	**44**	**38**
1989 Average	**1,403**	**1,197**	**106**	**-8**	**27**	**1,489**	**1,284**	**41**	**34**
1990 Average	**1,488**	**1,311**	**108**	**31**	**43**	**1,522**	**1,340**	**52**	**46**
1991 Average	**1,438**	**1,274**	**67**	**-9**	**43**	**1,471**	**1,296**	**49**	**44**
1992 Average	**1,399**	**1,254**	**82**	**-16**	**43**	**1,454**	**1,310**	**43**	**39**
1993 Average	**1,422**	**1,309**	**100**	**-7**	**59**	**1,469**	**1,357**	**40**	**38**
1994 Average	**1,448**	**1,410**	**117**	**18**	**20**	**1,527**	**1,480**	**47**	**46**
1995 January	1,412	1,402	79	-84	33	1,542	1,525	44	43
February	1,375	1,366	123	-43	21	1,520	1,514	43	42
March	1,281	1,272	99	-115	17	1,478	1,464	39	39
April	1,326	1,317	82	-12	5	1,414	1,402	39	38
May	1,367	1,354	104	-35	18	1,487	1,478	38	37
June	1,412	1,398	99	67	11	1,433	1,393	40	39
July	1,458	1,444	97	23	27	1,505	1,469	41	40
August	1,427	1,418	82	-23	21	1,511	1,505	40	39
September	1,465	1,459	155	44	20	1,557	1,500	41	41
October	1,426	1,422	99	-54	57	1,521	1,518	40	39
November	1,496	1,493	164	64	13	1,584	1,578	42	41
December	1,542	1,538	89	-51	63	1,619	1,618	40	39
Average	**1,416**	**1,407**	**106**	**-19**	**26**	**1,514**	**1,497**	**40**	**39**
1996 January	1,597	1,594	80	-43	111	1,609	1,605	39	38
February	1,500	1,496	108	-137	67	1,678	1,659	35	34
March	1,470	1,468	101	-19	59	1,531	1,534	34	34
April	1,466	1,464	108	50	11	1,512	1,505	36	35
May	1,419	1,418	112	37	13	1,481	1,455	37	36
June	1,514	1,512	127	70	11	1,559	1,557	39	38
July	1,496	1,493	89	-16	27	1,574	1,567	38	38
August	1,510	1,508	104	1	34	1,580	1,580	38	38
September	1,649	1,647	159	148	51	1,609	1,607	43	42
October	1,486	1,485	126	-54	35	1,632	1,637	41	41
November	1,515	1,514	87	-47	45	1,603	1,602	40	39
December	1,578	1,577	110	7	115	1,566	1,570	40	40
Average	**1,516**	**1,514**	**109**	**(s)**	**48**	**1,577**	**1,573**	**40**	**40**
1997 January	1,489	1,488	100	-117	78	1,629	1,625	36	36
February	1,482	1,482	113	35	23	1,537	1,530	37	37
March	1,484	1,483	123	63	11	1,532	1,531	39	39
April	[R] 1,491	[R] 1,490	[R] 98	[R] -5	[R] 21	[R] 1,573	[R] 1,572	39	39
May	[E] 1,546	[E] 1,545	[E] 94	[E] 66	[E] 27	[E] 1,547	[E] 1,546	[E] 41	[E] 41
5-Month Average	[E] **1,499**	[E] **1,498**	[E] **105**	[E] **8**	[E] **32**	[E] **1,564**	[E] **1,561**	[E] **41**	[E] **41**
1996 5-Month Average	**1,490**	**1,488**	**102**	**-22**	**52**	**1,561**	**1,550**	**37**	**36**
1995 5-Month Average	**1,352**	**1,342**	**97**	**-58**	**19**	**1,488**	**1,476**	**38**	**37**

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

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

[c] See Note 4 at end of section.

R=Revised data. E=Estimate. (s)=Less than +500 barrels per day and greater than -500 barrels per day.

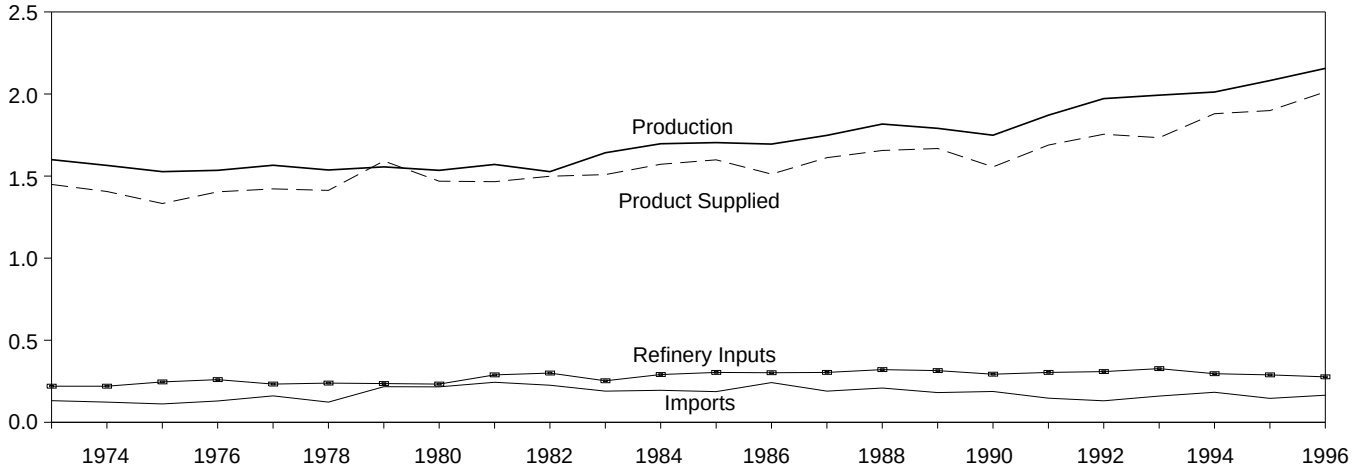
Note: Geographic coverage is the 50 States and the District of Columbia.

Sources: • **1973-1980:** Energy Information Administration (EIA), *Petroleum Supply Monthly,* February 1993, Table S7. • **1981-1996:** EIA, *Petroleum Supply Monthly,* May 1997, Table S7. • **1997:** EIA, *Petroleum Supply Monthly,* June 1997, Table S7.

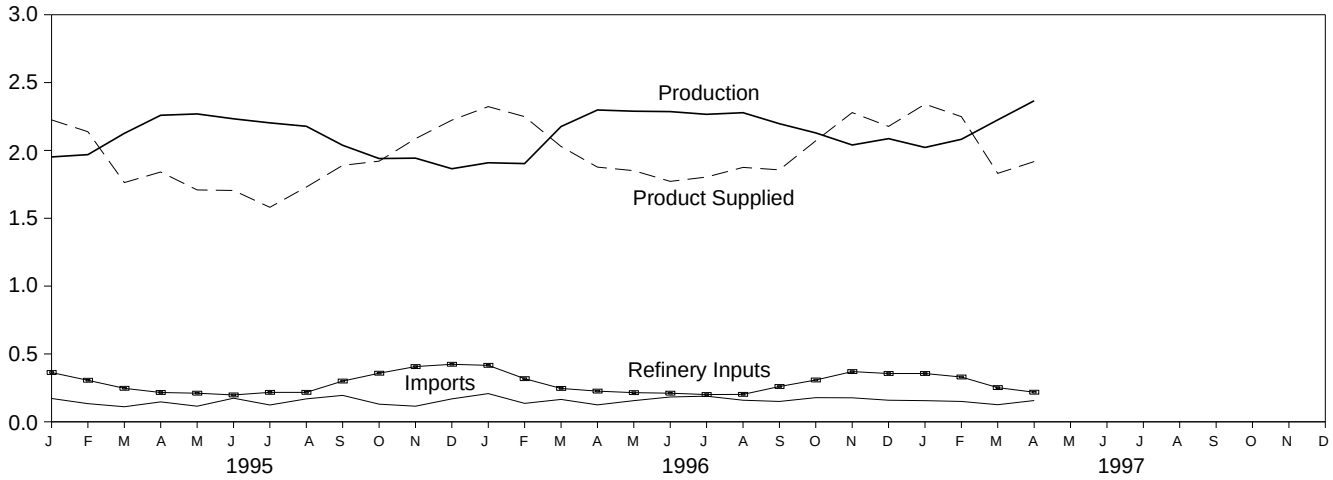
Figure 3.6 Liquefied Petroleum Gases

(Million Barrels per Day, Except as Noted)

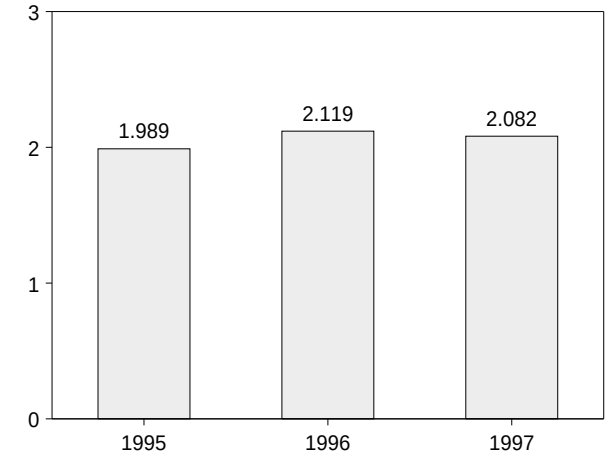
Overview, 1973-1996



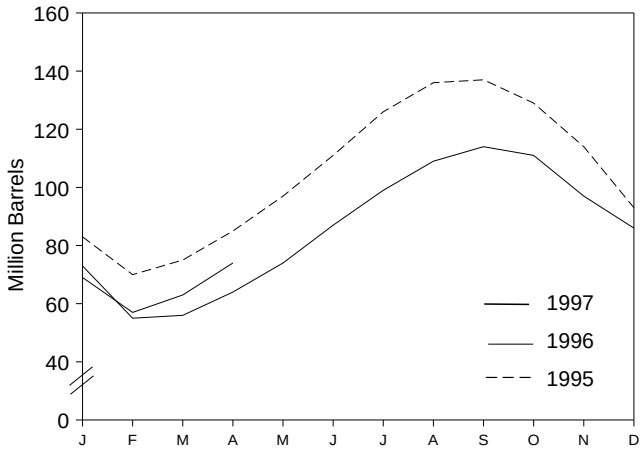
Overview, Monthly



Product Supplied, January-April



Stocks, End of Month



Note: Because vertical scales differ, graphs should not be compared.
Source: Table 3.8.

Table 3.8 Liquefied Petroleum Gases Supply and Disposition

	Supply		Disposition				
	Total Production	Imports	Stock Change[a]	Refinery Inputs	Exports	Product Supplied	Ending Stocks[b]
	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**	[c] **113**
1975 Average	**1,527**	**112**	[c] **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**	[c] **132**
1979 Average	**1,556**	**217**	[c] **-70**	**236**	**15**	**1,592**	**111**
1980 Average	**1,535**	**216**	**27**	**233**	**21**	**1,469**	[c] **120**
1981 Average	**1,571**	**244**	[c] **18**	**289**	**42**	**1,466**	**135**
1982 Average	[d] **1,527**	**226**	**-111**	**300**	**65**	**1,499**	[c] **94**
1983 Average	**1,642**	**190**	[c] **-4**	**253**	**73**	**1,509**	[c] **101**
1984 Average	**1,697**	**195**	[c] **-19**	**291**	**48**	**1,572**	**101**
1985 Average	**1,704**	**187**	**-75**	**304**	**62**	**1,599**	**74**
1986 Average	**1,695**	**242**	**80**	**302**	**42**	**1,512**	**103**
1987 Average	**1,748**	**190**	**-15**	**304**	**38**	**1,612**	**97**
1988 Average	**1,817**	**209**	**1**	**321**	**49**	**1,656**	**97**
1989 Average	**1,791**	**181**	**-47**	**315**	**35**	**1,668**	**80**
1990 Average	**1,749**	**188**	**48**	**293**	**40**	**1,556**	**98**
1991 Average	**1,871**	**147**	**-15**	**304**	**41**	**1,689**	**92**
1992 Average	**1,972**	**131**	**-10**	**309**	**49**	**1,755**	**89**
1993 Average	**1,993**	**160**	**49**	**327**	**43**	**1,734**	**106**
1994 Average	**2,012**	**183**	**-19**	**296**	**38**	**1,880**	**99**
1995 January	1,952	172	-527	363	64	2,225	83
February	1,969	134	-463	306	122	2,138	70
March	2,126	111	170	247	57	1,763	75
April	2,259	147	307	216	43	1,841	85
May	2,269	115	403	211	62	1,709	97
June	2,233	174	448	198	55	1,705	111
July	2,203	124	488	217	41	1,581	126
August	2,178	169	343	217	57	1,730	136
September	2,038	195	14	300	29	1,890	137
October	1,940	130	-245	358	35	1,921	129
November	1,943	115	-500	407	63	2,087	114
December	1,865	169	-680	424	67	2,223	93
Average	**2,082**	**146**	**-17**	**289**	**58**	**1,899**	**93**
1996 January	1,909	208	-671	416	49	2,323	73
February	1,903	136	-589	318	60	2,249	55
March	2,176	165	29	246	38	2,029	56
April	2,298	125	264	226	56	1,877	64
May	2,289	156	312	215	67	1,851	74
June	2,286	183	450	211	36	1,772	87
July	2,266	189	377	201	72	1,804	99
August	2,278	159	311	202	50	1,875	109
September	2,197	150	183	260	47	1,857	114
October	2,129	178	-108	308	37	2,071	111
November	2,040	177	-473	370	41	2,279	97
December	2,087	159	-343	356	56	2,177	86
Average	**2,156**	**165**	**-20**	**277**	**51**	**2,013**	**86**
1997 January	2,022	156	-555	356	36	2,341	69
February	2,082	150	-424	330	78	2,249	57
March	2,225	126	206	252	62	1,831	63
April	2,366	157	345	218	41	1,918	74
4-Month Average	**2,174**	**147**	**-103**	**289**	**54**	**2,082**	**74**
1996 4-Month Average	**2,073**	**159**	**-240**	**302**	**50**	**2,119**	**64**
1995 4-Month Average	**2,078**	**141**	**-124**	**283**	**70**	**1,989**	**85**

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

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

[c] See Note 4 at end of section.

[d] See Note 6 at end of section.

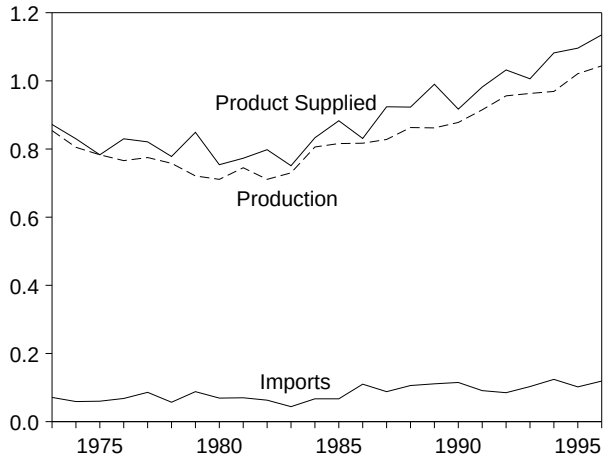
Notes: • Liquefied petroleum gases include ethane, ethylene, propane, propylene, normal butane, butylene, isobutane and isobutylene. • Geographic coverage is the 50 States and the District of Columbia.

Sources: • **1973-1980:** Energy Information Administration (EIA), *Petroleum Supply Monthly,* February 1993, Table S8. • **1981-1996:** EIA, *Petroleum Supply Monthly,* May 1997, Table S9. • **1997:** EIA, *Petroleum Supply Monthly,* June 1997, Table S9.

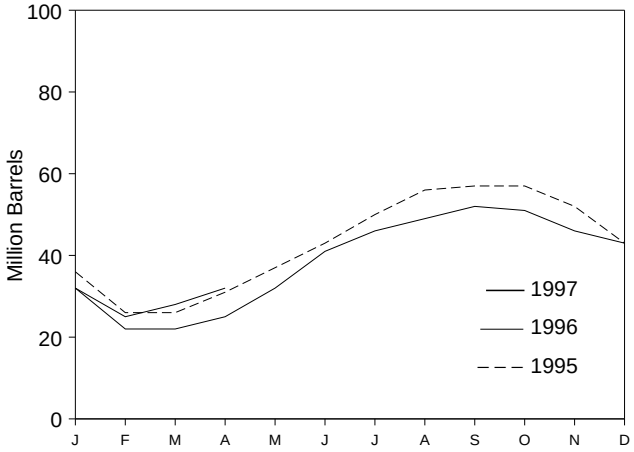
Figure 3.7 Propane and Propylene

(Million Barrels per Day, Except as Noted)

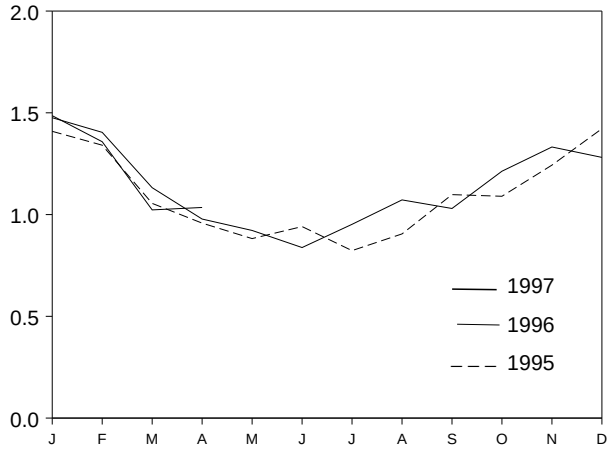
Overview, 1973-1996



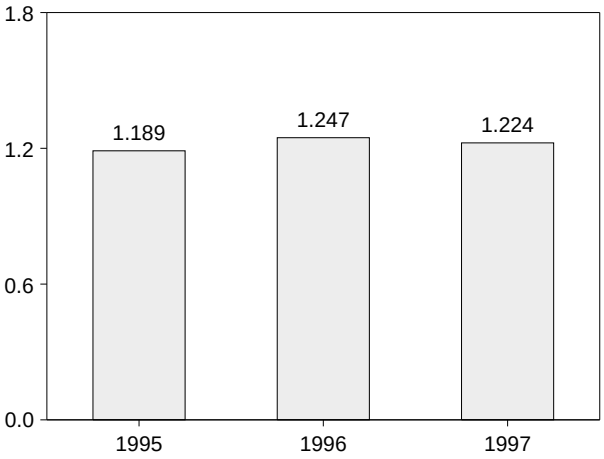
Stocks, End of Month



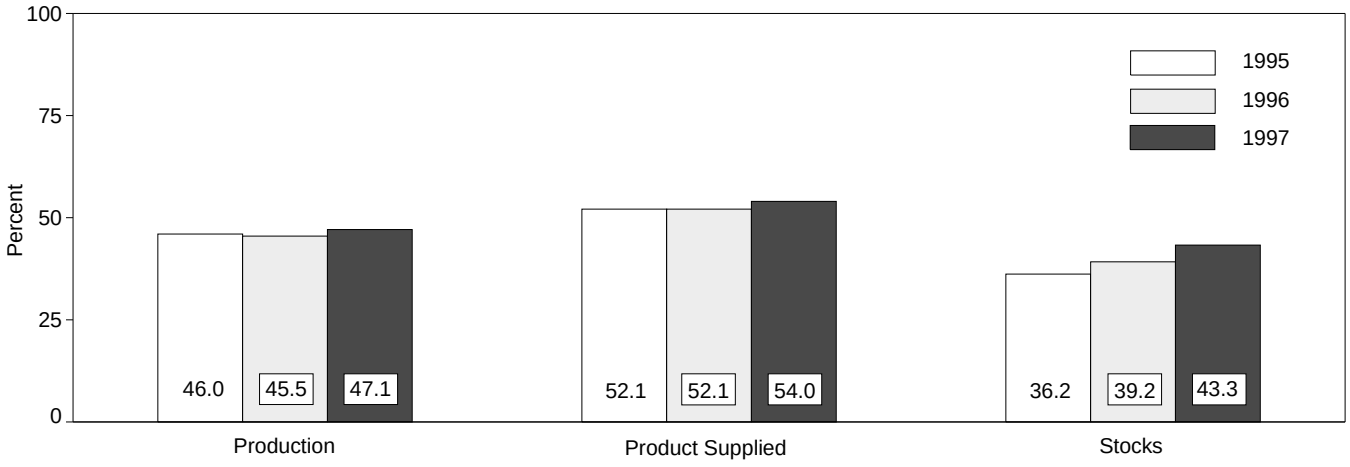
Product Supplied, Monthly



Product Supplied, January-April



Share of Liquefied Petroleum Gases, April



Note: Because vertical scales differ, graphs should not be compared.
Sources: Table 3.9 and, for calculation of shares, data prior to rounding for publication in Tables 3.8 and 3.9.

Table 3.9 Propane and Propylene Supply and Disposition (A Subset of Table 3.8)

	Supply		Disposition				
	Total Production	Imports	Stock Change[a]	Refinery Inputs	Exports	Product Supplied	Ending Stocks[b]
	Thousand Barrels per Day						Million Barrels
1973 Average	**854**	**71**	**30**	**8**	**15**	**872**	**65**
1974 Average	**805**	**59**	**11**	**9**	**14**	**830**	**69**
1975 Average	**783**	**60**	**36**	**11**	**13**	**783**	**82**
1976 Average	**766**	**68**	**-22**	**12**	**13**	**830**	**74**
1977 Average	**775**	**86**	**21**	**10**	**10**	**821**	**81**
1978 Average	**758**	**57**	**15**	**13**	**9**	**778**	[c] **87**
1979 Average	**721**	**88**	[c] **-61**	**14**	**8**	**849**	**64**
1980 Average	**711**	**69**	**4**	**12**	**10**	**754**	[c] **65**
1981 Average	**745**	**70**	[c] **18**	**5**	**18**	**773**	**76**
1982 Average	**711**	**63**	**-59**	**4**	**31**	**798**	[c] **54**
1983 Average	**730**	**44**	[c] **-24**	**4**	**43**	**751**	[c] **48**
1984 Average	**806**	**67**	[c] **7**	**4**	**30**	**833**	**58**
1985 Average	**816**	**67**	**-50**	**3**	**48**	**883**	**39**
1986 Average	**817**	**110**	**64**	**4**	**28**	**831**	**63**
1987 Average	**828**	**88**	**-41**	**8**	**24**	**924**	**48**
1988 Average	**863**	**106**	**7**	**8**	**31**	**923**	**50**
1989 Average	**862**	**111**	**-52**	**11**	**24**	**990**	**32**
1990 Average	**878**	**115**	**48**	**(s)**	**28**	**917**	**49**
1991 Average	**915**	**91**	**-3**	**(s)**	**28**	**982**	**48**
1992 Average	**956**	**85**	**-24**	**(s)**	**33**	**1,032**	**39**
1993 Average	**963**	**103**	**34**	**(s)**	**26**	**1,006**	**51**
1994 Average	**969**	**124**	**-13**	**0**	**24**	**1,082**	**46**
1995 January	1,007	108	-349	0	55	1,409	36
February	985	94	-362	0	100	1,341	26
March	1,017	90	14	0	39	1,055	26
April	1,040	107	157	0	31	958	31
May	1,046	73	209	0	29	882	37
June	1,042	114	188	0	27	941	43
July	1,011	75	236	0	27	823	50
August	1,008	107	187	0	24	905	56
September	1,022	146	45	0	25	1,098	57
October	999	98	-22	0	30	1,090	57
November	1,045	76	-160	0	37	1,243	52
December	1,033	135	-285	0	31	1,422	43
Average	**1,021**	**102**	**-10**	**0**	**38**	**1,096**	**43**
1996 January	989	150	-367	0	30	1,476	32
February	998	103	-342	0	39	1,404	22
March	1,041	116	(s)	0	25	1,132	22
April	1,046	82	118	0	31	978	25
May	1,049	103	210	0	21	922	32
June	1,031	121	294	0	21	838	41
July	1,045	122	185	0	29	952	46
August	1,055	119	78	0	24	1,072	49
September	1,058	96	103	0	21	1,030	52
October	1,057	147	-39	0	29	1,213	51
November	1,063	147	-156	0	34	1,332	46
December	1,094	122	-97	0	31	1,281	43
Average	**1,044**	**119**	**(s)**	**0**	**28**	**1,135**	**43**
1997 January	1,042	121	-352	0	28	1,486	32
February	1,043	105	-252	0	42	1,358	25
March	1,065	84	86	0	40	1,023	28
April	1,114	99	146	0	32	1,035	32
4-Month Average	**1,066**	**102**	**-91**	**0**	**35**	**1,224**	**32**
1996 4-Month Average	**1,019**	**113**	**-146**	**0**	**31**	**1,247**	**25**
1995 4-Month Average	**1,013**	**100**	**-132**	**0**	**55**	**1,189**	**31**

[a] A negative number indicates a decrease in stocks and a positive number indicates an increase.
[b] Stocks are totals as of end of period.
[c] See Note 4 at end of section.
(s)=Less than 500 barrels per day.
Note: Geographic coverage is the 50 States and the District of Columbia.
Sources: • **1973 through 1975:** U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys,* "Petroleum Statement, Annual." • **1976 through 1980:** Energy Information Administration (EIA), *Energy Data Reports,* Petroleum Statement, Annual." • **1981-1996:** EIA, *Petroleum Supply Monthly,* May 1997, Table S8. • **1997:** EIA, *Petroleum Supply Monthly,* June 1997, Table S8.

Table 3.10 Other Petroleum Products Supply and Disposition

	Supply		Disposition				
	Total Production	Imports	Stock Change[a]	Refinery Inputs	Exports	Products Supplied	Ending Stocks[b]
	Thousand Barrels per Day						Million Barrels
1973 Average	**2,833**	**290**	**1**	**750**	**162**	**2,211**	**179**
1974 Average	**2,722**	**269**	**25**	**665**	**172**	**2,129**	[c] **188**
1975 Average	**2,547**	**144**	[c] **-6**	**537**	**158**	**2,001**	**188**
1976 Average	**2,725**	**129**	**(s)**	**524**	**172**	**2,158**	**188**
1977 Average	**2,939**	**130**	**20**	**514**	**164**	**2,371**	**195**
1978 Average	**3,076**	**80**	**-12**	**492**	**165**	**2,511**	**191**
1979 Average	**3,141**	**116**	**24**	**352**	**208**	**2,673**	**200**
1980 Average	**2,957**	**130**	**15**	**310**	**197**	**2,566**	[c] **205**
1981 Average	**2,771**	**188**	[c] **-42**	**723**	**197**	**2,081**	**241**
1982 Average	**2,475**	**305**	**-68**	**787**	**205**	[d] **1,857**	[c] **216**
1983 Average	**2,437**	**382**	[c] **-6**	**712**	**236**	**1,877**	[c] **217**
1984 Average	**2,500**	**503**	[c] **-32**	**791**	**236**	**2,007**	**198**
1985 Average	**2,532**	**550**	**22**	**886**	**227**	**1,947**	**206**
1986 Average	**2,704**	**504**	**-15**	**888**	**291**	**2,045**	**201**
1987 Average	**2,737**	**543**	**-1**	**829**	**264**	**2,187**	**200**
1988 Average	**2,773**	**645**	**22**	**799**	**294**	**2,303**	**208**
1989 Average	**2,771**	**627**	**12**	**797**	**305**	**2,285**	**213**
1990 Average	**2,842**	**705**	**-32**	**887**	**289**	**2,402**	**201**
1991 Average	**2,826**	**675**	**18**	**936**	**277**	**2,269**	**208**
1992 Average	**2,928**	**707**	**-3**	**906**	**263**	**2,470**	[c] **207**
1993 Average	[e] **3,035**	**770**	[c] **-2**	**1,081**	[e] **300**	[e] **2,426**	**206**
1994 Average	**2,973**	**761**	**24**	**861**	**329**	**2,518**	**215**
1995 January	2,879	559	413	657	324	2,044	227
February	2,960	806	271	758	320	2,417	235
March	2,842	672	-35	914	329	2,306	234
April	2,916	711	-106	1,064	355	2,313	231
May	3,009	593	-74	801	339	2,535	229
June	3,142	651	-130	917	403	2,604	225
July	3,312	765	-54	1,126	326	2,679	223
August	3,246	745	-250	1,123	372	2,746	215
September	3,256	779	-44	1,077	348	2,654	214
October	2,939	727	-120	919	376	2,491	210
November	2,918	803	-35	1,003	343	2,409	209
December	2,953	701	-97	1,125	341	2,286	206
Average	**3,031**	**708**	**-23**	**958**	**348**	**2,457**	**206**
1996 January	2,848	819	403	615	335	2,314	219
February	2,830	693	15	860	388	2,260	219
March	2,955	775	80	733	315	2,603	222
April	3,053	814	196	807	421	2,442	228
May	3,136	755	-87	975	427	2,576	225
June	3,178	868	-204	1,163	399	2,688	219
July	3,291	796	-104	1,149	361	2,682	216
August	3,393	825	-298	1,276	448	2,792	207
September	3,320	713	-59	1,092	410	2,591	205
October	3,182	992	-100	996	323	2,955	202
November	3,110	838	-11	1,055	366	2,538	201
December	3,091	955	52	1,186	321	2,488	203
Average	**3,117**	**821**	**-10**	**992**	**376**	**2,579**	**203**
1997 January	2,963	1,142	341	850	403	2,511	214
February	2,990	1,012	213	988	332	2,470	219
March	3,103	945	505	718	391	2,434	235
April	3,172	1,053	-99	1,240	395	2,689	232
4-Month Average	**3,058**	**1,038**	**243**	**946**	**381**	**2,526**	**232**
1996 4-Month Average	**2,922**	**776**	**176**	**752**	**364**	**2,407**	**228**
1995 4-Month Average	**2,897**	**684**	**135**	**849**	**332**	**2,266**	**231**

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

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

[c] See Note 4 at end of section.

[d] See Note 6 at end of section.

[e] Beginning in 1993, other petroleum products production, exports, and products supplied include an adjustment to oxygenates and motor gasoline blending components.

(s)=Less than +500 barrels per day and greater than -500 barrels per day.

Notes: • Other petroleum products include pentanes plus, other hydrocarbons and alcohol, unfinished oils, gasoline blending components, and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, jet fuel, liquefied petroleum gases, and crude oil that is used as fuel. • Geographic coverage is the 50 States and the District of Columbia.

Sources: • **1973-1980:** Energy Information Administration (EIA), *Petroleum Supply Monthly,* February 1993, Table S9. • **1981-1996:** EIA, *Petroleum Supply Monthly,* May 1997, Table S10. • **1997:** EIA, *Petroleum Supply Monthly,* June 1997, Table S10.

Petroleum Notes

1. The Energy Information Administration (EIA) uses a number of sources and methods to maintain the survey respondent lists. On a regular basis, survey managers review such industry publications as the *Oil and Gas Journal* and *Oil Daily* for information on facilities or companies starting up or closing down operations. Those sources are augmented by articles in newspapers, letters from respondents indicating changes in status, and information received from survey systems.

To supplement routine frames maintenance and to provide more thorough coverage, a comprehensive frames investigation is conducted every 3 years. This investigation results in the reassessment and recompilation of the complete frame for each survey. The effort also includes the evaluation of the impact of potential frame changes on the historical time series of data from these respondents. The results of this frame study are usually implemented in January to provide a full year under the same frame.

In 1991, the EIA conducted a frame identifier survey of companies that produce, blend, store, or import oxygenates. A summary of the results from the identification survey was published in the *Weekly Petroleum Status Report* dated February 12, 1992, and in the February 1992 issue of the *Petroleum Supply Monthly.* In order to continue to provide relevant information about U.S. and regional gasoline supply, the EIA conducted a second frame identifier survey of those companies during 1992. As a result, numerous respondents were added to the monthly surveys effective in January 1993. See Explanatory Note 7 in the *Petroleum Supply Monthly.*

2. Motor Gasoline: Beginning in January 1981, the EIA expanded its universe to include non-refinery blenders and separated blending components from finished motor gasoline as a reporting category. Also, survey forms were modified to describe refinery operations more accurately.

Beginning with the reporting of January 1993 data, the EIA made adjustments to the product supplied series for finished motor gasoline. It was recognized that motor gasoline statistics published by the EIA through 1992 were underreported because the reporting system was (1) not collecting all fuel ethanol blending, and (2) there was a misreporting of motor gasoline blending components that were blended into finished gasoline. The adjustments are incorporated into EIA's data beginning in January 1993. To facilitate data analysis across the 1992-1993 period, EIA has prepared a table of 1992 data adjusted according to the 1993 basis. See *Petroleum Supply Monthly*, March 1993, Table H3.

3. Distillate and Residual Fuel Oils: The requirement to report crude oil in pipelines or burned on leases as either distillate or residual fuel oil has been eliminated. Prior to January 1981, the refinery input of unfinished oils typically exceeded the available supply of unfinished oils. That discrepancy was assumed to be due to the redesignation of distillate and residual fuel oils received as such but used as unfinished oil inputs by the receiving refinery. The imbalance between supply and disposition of unfinished oils would then be subtracted from the production of distillate and residual fuel oils. Two-thirds of that difference was subtracted from distillate and one-third from residual. Beginning in January 1981, the EIA modified its survey forms to account for redesignated product and discontinued the above-mentioned adjustment.

Beginning in January 1993, the end-of-month stocks of distillate fuel oil are split into two sulfur categories (0.05 percent sulfur or less and greater than 0.05 percent sulfur) to meet Environmental Protection Agency requirements effective in October 1992. For further details, see the EIA, *Petroleum Supply Monthly.*

4. New Stock Basis: In January 1975, 1979, 1981, and 1983, numerous respondents were added to bulk terminal and pipeline surveys, affecting subsequent stocks reported and stock change 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—1,425; and 1982—1,461.
- Motor Gasoline: 1974—225; 1980—263 (Total) and 214 (Finished); 1982—244 (Total) and 202 (Finished).
- Distillate Fuel Oil: 1974—224; 1980—205; and 1982—186.
- Residual Fuel Oil: 1974—75; 1980—91; and 1982—69.
- Jet Fuel: 1974—30 (Total) and 24 (Kerosene Type); 1980—42 (Total) and 36 (Kerosene Type); and 1982—39 (Total) and 32 (Kerosene Type).
- Liquefied Petroleum Gases: 1974—113; 1978—136; 1980—128; and 1982—102.
- Propane and Propylene: 1978—86; 1980—69; and 1982—57.
- Other Petroleum Products: 1974—190; 1980—207; and 1982—219.

Stock change calculations beginning in 1975, 1979, 1981, and 1983 were made by 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 the "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 now appear in the "Liquefied Petroleum Gases Supply and

Disposition" table. This change affects stocks reported and stock change calculations in each table. Under the new basis, end-of-year 1983 stocks, in million barrels, would have been:

- Liquefied Petroleum Gases: 1983—108.
- Propane and Propylene: 1983—55.
- Other Petroleum Products: 1983—210.

In January 1993, changes were made in the monthly surveys to begin collecting bulk terminal and pipeline stocks of oxygenates. This change affected stocks reported and stock change calculations. However, a new basis stock level was not calculated for 1992 end-of-year stocks.

5. Stocks of Alaskan Crude Oil: 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 change calculations. Using the expanded coverage (new basis), 1980 end-of-year stocks, in million barrels, would have been 488 (Total) and 380 (Other Primary).

6. Data Discrepancies: Due to differences internal to EIA data processing systems, some small discrepancies exist between data in the *Monthly Energy Review* (*MER*) and the *Petroleum Supply Annual* (*PSA*) and *Petroleum Supply Monthly (PSM)*. The data that have discrepancies are footnoted in Section 3 tables and summarized here.

Table	Data Series	Year Average	*MER* Data	*PSA* and *PSM* Data
3.1a	Natural Gas Plant Production	1976	1,604	1,603
3.1b	Exports, Total	1979	471	472
3.1b	Exports, Petroleum Products	1979	236	237
3.1b	Net Imports	1979	7,985	7,984
3.2a	Crude Used Directly	1976	-19	-18
3.2a	Imports, SPR	1978	161	162
3.2a	Crude Used Directly	1978	-15	-14
3.2a	Crude Used Directly	1979	-14	-13
3.2a	Crude Used Directly	1980	-14	-13
3.2b	Crude Losses	1976	14	15
3.2b	Crude Losses	1980	14	15
3.5	Stock Change	1974	10	9
3.5	Stock Change	1975	-41	-40
3.8	Total Production	1982	1,527	1,525
3.10	Products Supplied	1982	1,857	1,856

Section 4. Natural Gas

Total dry natural gas production in the United States during May 1997 was forecast as 1.6 trillion cubic feet, 2 percent higher than production during the previous May.

Consumption of natural and supplemental gas in May 1997 was forecast as 1.6 trillion cubic feet, 4 percent above the level in May 1996.

Deliveries to residential consumers in May 1997 were forecast as 279 billion cubic feet, 3 percent higher than the previous May's deliveries. Total deliveries to industrial consumers during May 1997 were forecast as 737 billion cubic feet, 6 percent higher than the previous May's level.

Imports of natural gas in March 1997 were estimated as 267 billion cubic feet, 19 percent higher than imports in the previous March. Imports of natural gas during the first quarter of 1997 were 789 billion cubic feet, 12 percent higher than imports during the first quarter of 1996.

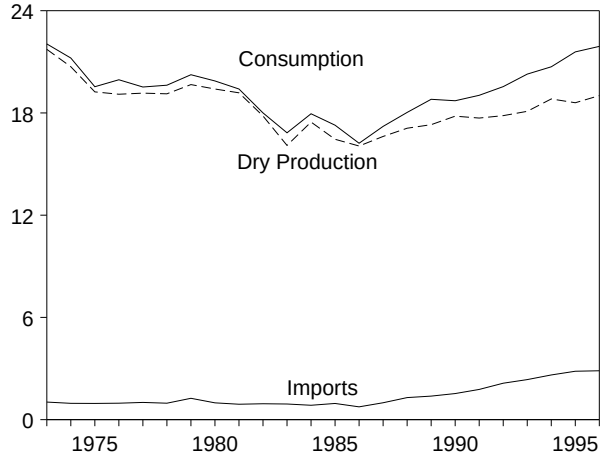
Stocks of working gas[1] in underground natural gas storage reservoirs at the end of May 1997 were forecast as 1.4 trillion cubic feet, 18 percent above the level of stocks available 1 year earlier. Net withdrawals from storage during May 1997 were forecast as 320 billion cubic feet, 2 percent lower than the amount of net withdrawals during the previous May.

[1]Gas available for withdrawal.

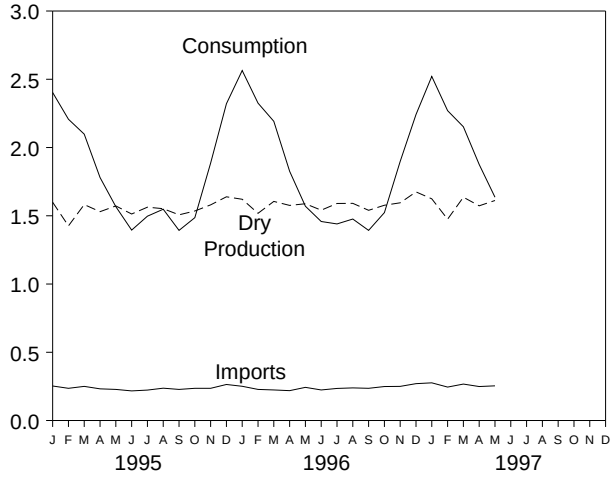
Figure 4.1 Natural Gas

(Trillion Cubic Feet)

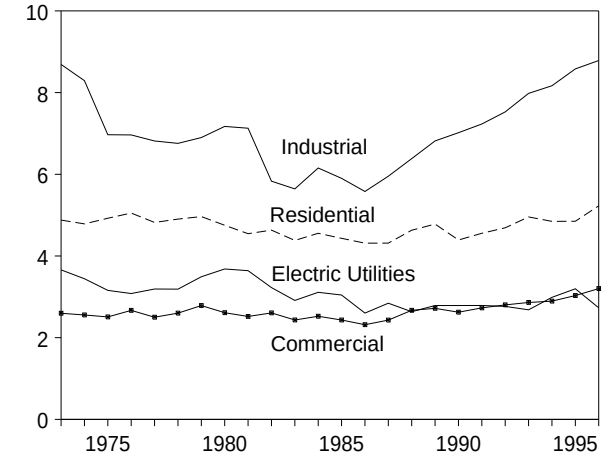
Overview, 1973-1996



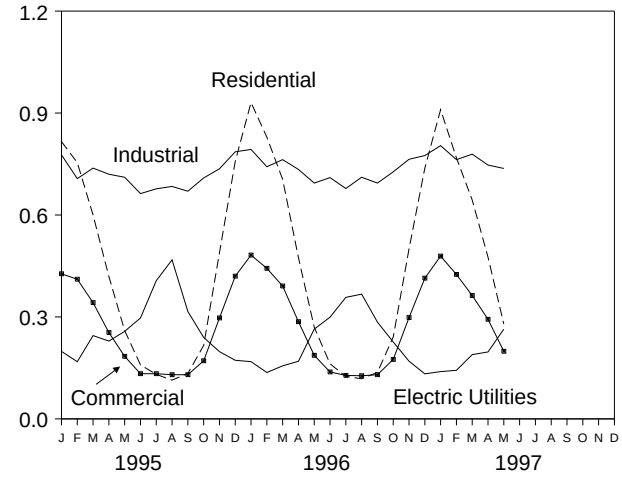
Overview, Monthly



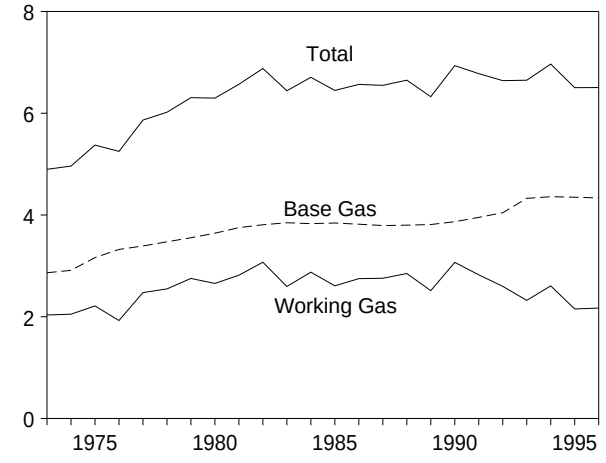
Consumption by Sector, 1973-1996



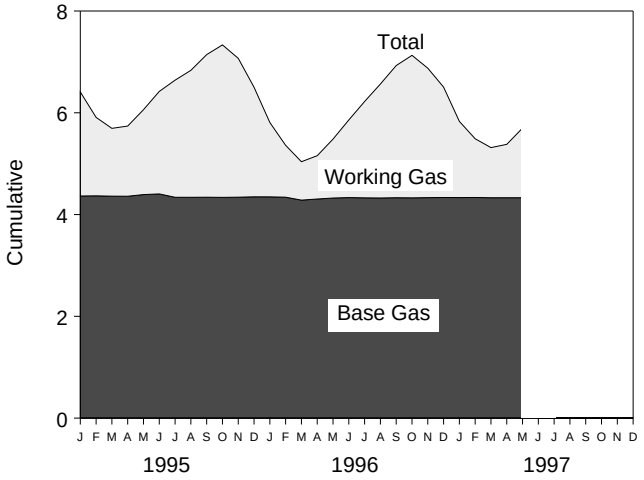
Consumption by Sector, Monthly



Underground Storage, End of Year, 1973-1996



Underground Storage, End of Month



Note: Because vertical scales differ, graphs should not be compared.
Sources: Tables 4.1, 4.3, 4.4, and 4.5.

Table 4.1 Natural Gas Overview

(Billion Cubic Feet)

	Dry Gas Production[a]	Supplemental Gaseous Fuels[b]	Net Imports[c]	Net Withdrawals From Storage[d]	Balancing Item[e]	Consumption[f]
1973 Total	[g]**21,731**	**NA**	**956**	**-442**	**-196**	**22,049**
1974 Total	[g]**20,713**	**NA**	**882**	**-84**	**-289**	**21,223**
1975 Total	[g]**19,236**	**NA**	**880**	**-344**	**-235**	**19,538**
1976 Total	[g]**19,098**	**NA**	**899**	**165**	**-216**	**19,946**
1977 Total	[g]**19,163**	**NA**	**955**	**-557**	**-41**	**19,521**
1978 Total	[g]**19,122**	**NA**	**913**	**-120**	**-287**	**19,627**
1979 Total	[g]**19,663**	**NA**	**1,198**	**-248**	**-372**	**20,241**
1980 Total	**19,403**	**155**	**936**	**23**	**-640**	**19,877**
1981 Total	**19,181**	**176**	**845**	**-297**	**-500**	**19,404**
1982 Total	**17,820**	**145**	**882**	**-308**	[g]**-537**	**18,001**
1983 Total	**16,094**	**132**	**864**	**447**	[g]**-703**	**16,835**
1984 Total	**17,466**	**110**	**788**	**-197**	**-217**	**17,951**
1985 Total	**16,454**	**126**	**894**	**235**	**-428**	**17,281**
1986 Total	**16,059**	**113**	**689**	**-147**	**-493**	**16,221**
1987 Total	**16,621**	**101**	**939**	**-6**	**-444**	**17,211**
1988 Total	**17,103**	**101**	**1,220**	**59**	**-453**	**18,030**
1989 Total	**17,311**	**107**	**1,275**	**326**	**-218**	**18,801**
1990 Total	**17,810**	**123**	**1,447**	**-513**	**-149**	**18,716**
1991 Total	**17,698**	**113**	**1,644**	**80**	**-500**	**19,035**
1992 Total	**17,840**	**118**	**1,921**	**173**	**-508**	**19,544**
1993 Total	**18,095**	**119**	**2,210**	**-36**	**-110**	**20,279**
1994 Total	**18,821**	**111**	**2,462**	**-286**	**-400**	**20,708**
1995 January	1,599	12	240	613	-60	2,403
February	1,426	10	223	531	17	2,207
March	1,582	10	236	228	42	2,098
April	1,530	7	220	-51	74	1,780
May	1,572	8	216	-343	115	1,567
June	1,513	8	202	-380	52	1,395
July	1,563	8	208	-313	30	1,497
August	1,552	8	223	-212	-24	1,548
September	1,507	7	216	-321	-17	1,393
October	1,535	9	224	-210	-72	1,486
November	1,580	10	224	278	-206	1,886
December	1,639	12	256	595	-181	2,321
Total	**18,599**	**110**	**2,687**	**415**	**-230**	**21,581**
1996 January	1,621	14	237	699	[R]-7	[R]2,564
February	1,518	12	215	447	[R]132	[R]2,325
March	1,605	12	209	324	[R]41	[R]2,192
April	1,576	11	209	-114	[R]145	[R]1,826
May	1,588	8	235	-328	68	1,570
June	1,541	10	212	-375	[R]71	1,458
July	1,590	10	221	-369	[R]-13	[R]1,440
August	1,591	10	222	-345	[R]-2	1,476
September	1,540	9	225	-364	[R]-18	[R]1,393
October	1,577	10	237	-204	-97	1,523
November	[RE]1,595	[E]12	236	264	[R]-209	[R]1,898
December	[RE]1,675	[R]8	258	376	[R]-75	[E]2,242
Total	[RE]**19,017**	[RE]**125**	[E]**2,715**	**11**	[R]**36**	[RE]**21,905**
1997 January	[R]1,624	12	[RE]264	672	[R]-52	[R]2,521
February	[E]1,475	[E]11	[RE]234	356	[R]195	[R]2,270
March	[E]1,636	[E]11	[RE]253	156	[R]96	[R]2,152
April	[F]1,573	[F]10	[F]240	[RF]-64	[RF]117	[RF]1,876
May	[F]1,612	[F]9	[F]243	[F]-320	[F]92	[F]1,636
5-Month Total	[E]**7,920**	[E]**52**	[E]**1,233**	[E]**801**	[E]**448**	[E]**10,455**
1996 5-Month Total	**7,908**	**57**	**1,104**	**1,029**	**379**	**10,477**
1995 5-Month Total	**7,708**	**48**	**1,134**	**978**	**187**	**10,055**

[a] "Marketed Production (Wet)" minus "Extraction Loss." See Table 4.2.

[b] See Note 4 at end of section.

[c] "Imports" minus "Exports." See Table 4.3.

[d] "Withdrawals" minus "Injections." Data for 1980-1995 cover underground storage and liquefied natural gas storage. All other time periods cover underground storage only. See also Note 8 at end of section.

[e] See Note 7 at end of section. Since 1980, excludes transit shipments that cross the U.S.-Canada border (i.e., natural gas delivered to its destination via the other country).

[f] See Note 6 at end of section.

[g] May include unknown quantities of nonhydrocarbon gases.

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

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

Sources: • **1973-1990:** Energy Information Administration (EIA), *Natural Gas Annual 1995,* Table 100. • **1991 forward:** EIA, *Natural Gas Monthly,* May 1997, Table 2. Estimates for the most recent two months are derived from the Short-Term Integrated Forecasting System. See Note 9 at end of section.

Table 4.2 Natural Gas Production

(Billion Cubic Feet)

	Gross Withdrawals[a]	Repressuring[b]	Nonhydro-carbon Gases Removed[c]	Vented and Flared[d]	Marketed Production (Wet)[e]	Extraction Loss[f]	Total Dry Gas Production[g]
1973 Total	**24,067**	**1,171**	**NA**	**248**	**[h] 22,648**	**917**	**[h] 21,731**
1974 Total	**22,850**	**1,080**	**NA**	**169**	**[h] 21,601**	**887**	**[h] 20,713**
1975 Total	**21,104**	**861**	**NA**	**134**	**[h] 20,109**	**872**	**[h] 19,236**
1976 Total	**20,944**	**859**	**NA**	**132**	**[h] 19,952**	**854**	**[h] 19,098**
1977 Total	**21,097**	**935**	**NA**	**137**	**[h] 20,025**	**863**	**[h] 19,163**
1978 Total	**21,309**	**1,181**	**NA**	**153**	**[h] 19,974**	**852**	**[h] 19,122**
1979 Total	**21,883**	**1,245**	**NA**	**167**	**[h] 20,471**	**808**	**[h] 19,663**
1980 Total	**21,870**	**1,365**	**199**	**125**	**20,180**	**777**	**19,403**
1981 Total	**21,587**	**1,312**	**222**	**98**	**19,956**	**775**	**19,181**
1982 Total	**20,272**	**1,388**	**208**	**93**	**18,582**	**762**	**17,820**
1983 Total	**18,659**	**1,458**	**222**	**95**	**16,884**	**790**	**16,094**
1984 Total	**20,267**	**1,630**	**224**	**108**	**18,304**	**838**	**17,466**
1985 Total	**19,607**	**1,915**	**326**	**95**	**17,270**	**816**	**16,454**
1986 Total	**19,131**	**1,838**	**337**	**98**	**16,859**	**800**	**16,059**
1987 Total	**20,140**	**2,208**	**376**	**124**	**17,433**	**812**	**16,621**
1988 Total	**20,999**	**2,478**	**460**	**143**	**17,918**	**816**	**17,103**
1989 Total	**21,074**	**2,475**	**362**	**142**	**18,095**	**785**	**17,311**
1990 Total	**21,523**	**2,489**	**289**	**150**	**18,594**	**784**	**17,810**
1991 Total	**21,750**	**2,772**	**276**	**170**	**18,532**	**835**	**17,698**
1992 Total	**22,132**	**2,973**	**280**	**168**	**18,712**	**872**	**17,840**
1993 Total	**22,726**	**3,103**	**414**	**227**	**18,982**	**886**	**18,095**
1994 Total	**23,581**	**3,231**	**412**	**228**	**19,710**	**889**	**18,821**
1995 January	2,043	311	34	21	1,677	78	1,599
February	1,822	276	30	20	1,495	70	1,426
March	2,026	314	32	20	1,660	77	1,582
April	1,945	287	32	21	1,604	75	1,530
May	1,997	291	33	24	1,649	77	1,572
June	1,910	264	31	28	1,587	74	1,513
July	1,960	264	31	26	1,639	76	1,563
August	1,965	284	30	22	1,628	76	1,552
September	1,914	276	33	25	1,581	74	1,507
October	1,988	319	34	25	1,610	75	1,535
November	2,045	331	33	24	1,657	77	1,580
December	2,128	348	35	26	1,719	80	1,639
Total	**23,744**	**3,565**	**388**	**284**	**19,506**	**908**	**18,599**
1996 January	[E] 2,083	[E] 327	[E] 31	[E] 25	[E] 1,700	79	1,621
February	[E] 1,955	[E] 310	[E] 29	[E] 23	[E] 1,593	74	1,518
March	[E] 2,064	[E] 328	[E] 30	[E] 22	[E] 1,684	78	1,605
April	[E] 2,012	[E] 305	[E] 31	[E] 23	[E] 1,653	77	1,576
May	[E] 2,001	[E] 285	[E] 30	[E] 22	[E] 1,665	78	1,588
June	[E] 1,954	[E] 291	[E] 28	[E] 19	[E] 1,616	75	1,541
July	[E] 2,009	[E] 288	[E] 31	[E] 22	[E] 1,668	78	1,590
August	[E] 2,021	[E] 299	[E] 31	[E] 22	[E] 1,669	78	1,591
September	[E] 1,967	[E] 301	[E] 29	[E] 21	[E] 1,615	75	1,540
October	[E] 2,028	[E] 324	[E] 30	[E] 21	[RE] 1,654	77	1,577
November	[RE] 2,041	[E] 318	[E] 29	[E] 21	[E] 1,673	[E] 78	[RE] 1,595
December	[RE] 2,140	[E] 331	[E] 31	[E] 22	[RE] 1,757	[E] 82	[RE] 1,675
Total	**[RE] 24,277**	**[RE] 3,708**	**[E] 359**	**[E] 263**	**[RE] 19,947**	**[RE] 930**	**[RE] 19,017**
1997 January	[RE] 2,080	[RE] 327	[RE] 29	[RE] 20	[RE] 1,704	79	[R] 1,624
February	[RE] 1,887	[RE] 294	[E] 27	[E] 19	[E] 1,547	[RE] 72	[RE] 1,475
March	[E] 2,093	[E] 326	[E] 30	[E] 21	[E] 1,716	[E] 80	[E] 1,636
April	NA	NA	NA	NA	[F] 1,650	[F] 77	[F] 1,573
May	NA	NA	NA	NA	[F] 1,691	[F] 79	[F] 1,612
5-Month Total	**NA**	**NA**	**NA**	**NA**	**[E] 8,308**	**[E] 387**	**[E] 7,920**
1996 5-Month Total	**[E] 10,116**	**[E] 1,556**	**[E] 151**	**[E] 115**	**[E] 8,294**	**387**	**7,908**
1995 5-Month Total	**9,832**	**1,480**	**161**	**107**	**8,085**	**376**	**7,708**

[a] Gas withdrawn from gas and oil wells.

[b] The injection of natural gas into oil and gas formations for pressure maintenance and cycling purposes.

[c] See Note 1 at end of section.

[d] Vented: Natural gas released into the air on the base site or at processing plants. Flared: Natural gas burned in flares on the base site or at gas processing plants.

[e] "Gross Withdrawals" minus "Repressuring," "Nonhydrocarbon Gases Removed," and "Vented and Flared." See Note 2 at end of section.

[f] See Note 3 at end of section.

[g] "Marketed Production (Wet)" minus "Extraction Loss."

[h] May include unknown quantities of nonhydrocarbon gases.

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

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

Sources: • **1973-1990:** Energy Information Administration (EIA), *Natural Gas Annual 1995,* Table 99. • **1991 forward:** EIA, *Natural Gas Monthly,* May 1997, Table 1. Estimates for the most recent two months are derived from the Short-Term Integrated Forecasting System. See Note 9 at end of section.

Table 4.3 Natural Gas Trade by Country

(Billion Cubic Feet)

	Imports					Exports			
	Canada[a]	Algeria[b]	Mexico[a]	United Arab Emirates[b]	Total	Canada[a]	Mexico[a]	Japan[b]	Total
1973 Total	**1,028**	**3**	**2**	**0**	**1,033**	**15**	**14**	**48**	**77**
1974 Total	**959**	**0**	**(s)**	**0**	**959**	**13**	**13**	**50**	**77**
1975 Total	**948**	**5**	**0**	**0**	**953**	**10**	**9**	**53**	**73**
1976 Total	**954**	**10**	**0**	**0**	**964**	**8**	**7**	**50**	**65**
1977 Total	**997**	**11**	**2**	**0**	**1,011**	**(s)**	**4**	**52**	**56**
1978 Total	**881**	**84**	**0**	**0**	**966**	**(s)**	**4**	**48**	**53**
1979 Total	**1,001**	**253**	**0**	**0**	**1,253**	**(s)**	**4**	**51**	**56**
1980 Total	**797**	**86**	**102**	**0**	**985**	**(s)**	**4**	**45**	**49**
1981 Total	**762**	**37**	**105**	**0**	**904**	**(s)**	**3**	**56**	**59**
1982 Total	**783**	**55**	**95**	**0**	**933**	**(s)**	**2**	**50**	**52**
1983 Total	**712**	**131**	**75**	**0**	**918**	**(s)**	**2**	**53**	**55**
1984 Total	**755**	**36**	**52**	**0**	**843**	**(s)**	**2**	**53**	**55**
1985 Total	**926**	**24**	**0**	**0**	**950**	**(s)**	**2**	**53**	**55**
1986 Total	**749**	**0**	**0**	**0**	[c]**750**	**9**	**2**	**50**	**61**
1987 Total	**993**	**0**	**0**	**0**	**993**	**3**	**2**	**49**	**54**
1988 Total	**1,276**	**17**	**0**	**0**	**1,294**	**20**	**2**	**52**	**74**
1989 Total	**1,339**	**42**	**0**	**0**	**1,382**	**38**	**17**	**51**	**107**
1990 Total	**1,448**	**84**	**0**	**0**	**1,532**	**17**	**16**	**53**	**86**
1991 Total	**1,710**	**64**	**0**	**0**	**1,773**	**15**	**60**	**54**	**129**
1992 Total	**2,094**	**43**	**0**	**0**	**2,138**	**68**	**96**	**53**	**216**
1993 Total	**2,267**	**82**	**2**	**0**	**2,350**	**45**	**40**	**56**	**140**
1994 Total	**2,566**	**51**	**7**	**0**	**2,624**	**53**	**47**	**63**	**162**
1995 January	251	3	(s)	0	253	3	6	6	14
February	233	3	0	0	236	2	6	6	13
March	248	3	(s)	0	250	2	7	6	15
April	232	0	0	0	232	2	6	4	12
May	226	3	0	0	228	2	7	4	12
June	217	0	0	0	217	2	8	6	16
July	223	0	0	0	223	2	7	6	15
August	233	3	1	0	237	3	3	8	14
September	224	0	4	0	228	3	2	6	11
October	234	0	2	0	236	3	6	4	12
November	234	2	0	0	236	2	4	8	13
December	262	3	0	0	264	1	1	6	8
Total	**2,816**	**18**	**7**	**0**	**2,841**	**28**	**61**	**65**	**154**
1996 January	247	2	1	0	251	7	2	6	14
February	225	3	1	0	228	5	2	6	13
March	220	3	1	0	224	7	3	6	15
April	213	5	1	0	219	2	2	6	10
May	236	3	4	0	243	3	2	4	8
June	223	0	1	0	224	3	3	6	12
July	231	3	1	0	235	4	3	8	14
August	237	3	(s)	0	239	2	9	6	17
September	233	0	1	3	236	3	2	6	11
October	243	5	1	0	249	4	2	6	12
November	244	5	1	0	250	6	2	6	14
December	262	5	(s)	2	270	4	2	6	12
Total	**2,813**	**35**	**14**	**5**	[E]**2,868**	**51**	**34**	**68**	[E]**152**
1997 January	[R]265	8	[E]1	2	[RE]276	4	2	6	[RE]12
February	[RE]236	8	[E]1	0	[RE]245	[RE]5	[RE]1	6	[RE]12
March	[E]262	3	[E]2	0	[E]267	[E]7	[E]1	6	[E]14
3-Month Total	**763**	**18**	**5**	**2**	**789**	**16**	**4**	**17**	**37**
1996 3-Month Total	**692**	**8**	**3**	**0**	**703**	**19**	**6**	**17**	**42**
1995 3-Month Total	**732**	**8**	**0**	**0**	**740**	**7**	**18**	**17**	**41**

[a] By pipeline, except for very small amounts of liquefied natural gas imported from Canada in 1973, 1977 and 1981. See Note 5 at end of section.

[b] As liquefied natural gas.

[c] Includes 2 billion cubic feet of liquefied natural gas from Indonesia.

R=Revised data. NA=Not available. E=Estimate. F=Forecast. (s)=Less than 500 million cubic feet.

Notes: • See Note 5 at end of section. • Totals may not equal sum of components due to independent rounding. • U.S. geographic coverage is the 50 States and the District of Columbia.

Sources: • **1973-1989:** Energy Information Administration (EIA), Form FPC-14, "Annual Report for Importers and Exporters of Natural Gas." • **1990 forward:** EIA, *Natural Gas Monthly,* May 1997, Tables 5 and 6. Estimates for the most recent two months are derived from the Short-Term Integrated Forecasting System. See Note 9 at end of section.

Table 4.4 Natural Gas Consumption by End-Use Sector

(Billion Cubic Feet)

	Lease and Plant Fuel	Pipeline Fuel[a]	Delivered to Consumers						Total Consumption
			Residential	Commercial	Industrial	Vehicles	Electric Utilities	Total	
1973 Total	**1,496**	**728**	**4,879**	**2,597**	**8,689**	**NA**	**3,660**	**19,825**	**22,049**
1974 Total	**1,477**	**669**	**4,786**	**2,556**	**8,292**	**NA**	**3,443**	**19,077**	**21,223**
1975 Total	**1,396**	**583**	**4,924**	**2,508**	**6,968**	**NA**	**3,158**	**17,558**	**19,538**
1976 Total	**1,634**	**548**	**5,051**	**2,668**	**6,964**	**NA**	**3,081**	**17,764**	**19,946**
1977 Total	**1,659**	**533**	**4,821**	**2,501**	**6,815**	**NA**	**3,191**	**17,329**	**19,521**
1978 Total	**1,648**	**530**	**4,903**	**2,601**	**6,757**	**NA**	**3,188**	**17,449**	**19,627**
1979 Total	**1,499**	**601**	**4,965**	**2,786**	**6,899**	**NA**	**3,491**	**18,141**	**20,241**
1980 Total	**1,026**	**635**	**4,752**	**2,611**	**7,172**	**NA**	**3,682**	**18,216**	**19,877**
1981 Total	**928**	**642**	**4,546**	**2,520**	**7,128**	**NA**	**3,640**	**17,834**	**19,404**
1982 Total	**1,109**	**596**	**4,633**	**2,606**	**5,831**	**NA**	**3,226**	**16,295**	**18,001**
1983 Total	**978**	**490**	**4,381**	**2,433**	**5,643**	**NA**	**2,911**	**15,367**	**16,835**
1984 Total	**1,077**	**529**	**4,555**	**2,524**	**6,154**	**NA**	**3,111**	**16,345**	**17,951**
1985 Total	**966**	**504**	**4,433**	**2,432**	**5,901**	**NA**	**3,044**	**15,811**	**17,281**
1986 Total	**923**	**485**	**4,314**	**2,318**	**5,579**	**NA**	**2,602**	**14,814**	**16,221**
1987 Total	**1,149**	**519**	**4,315**	**2,430**	**5,953**	**NA**	**2,844**	**15,542**	**17,211**
1988 Total	**1,096**	**614**	**4,630**	**2,670**	**6,383**	**NA**	**2,636**	**16,320**	**18,030**
1989 Total	**1,070**	**629**	**4,781**	**2,718**	**6,816**	**NA**	**2,787**	**17,102**	**18,801**
1990 Total	**1,236**	**660**	**4,391**	**2,623**	**7,018**	**(s)**	**2,787**	**16,820**	**18,716**
1991 Total	**1,129**	**601**	**4,556**	**2,729**	**7,231**	**(s)**	**2,789**	**17,305**	**19,035**
1992 Total	**1,171**	**588**	**4,690**	**2,803**	**7,527**	**1**	**2,766**	**17,786**	**19,544**
1993 Total	**1,172**	**624**	**4,956**	**2,862**	**7,981**	**1**	**2,682**	**18,483**	**20,279**
1994 Total	**1,124**	**685**	**4,848**	**2,895**	**8,167**	**2**	**2,987**	**18,899**	**20,708**
1995 January	105	79	816	427	777	NA	199	2,218	2,403
February	94	73	754	411	707	NA	168	2,040	2,207
March	104	69	600	342	738	NA	245	1,926	2,098
April	100	58	419	254	720	NA	229	1,622	1,780
May	103	50	260	184	711	NA	258	1,414	1,567
June	99	45	159	133	663	NA	297	1,252	1,395
July	101	48	131	133	677	NA	407	1,347	1,497
August	101	50	114	130	684	NA	468	1,397	1,548
September	99	45	134	130	670	NA	316	1,250	1,393
October	102	48	216	171	709	NA	240	1,336	1,486
November	105	61	489	297	736	NA	198	1,720	1,886
December	109	76	758	420	786	NA	172	2,136	2,321
Total	**1,220**	**700**	**4,850**	**3,031**	**8,580**	**3**	**3,197**	**19,660**	**21,581**
1996 January	106	83	931	R 482	R 793	NA	168	R 2,374	R 2,564
February	100	75	829	R 443	R 742	NA	137	R 2,150	R 2,325
March	105	71	705	R 391	763	NA	156	R 2,015	R 2,192
April	103	59	474	R 286	734	NA	170	R 1,663	R 1,826
May	104	51	270	187	694	NA	264	1,415	1,570
June	101	47	162	138	710	NA	299	R 1,309	1,458
July	104	47	125	R 128	678	NA	358	R 1,289	R 1,440
August	104	48	118	R 127	711	NA	367	R 1,323	1,476
September	101	45	137	130	R 694	NA	285	R 1,246	R 1,393
October	104	49	241	175	727	NA	226	1,370	1,523
November	105	62	R 500	298	R 764	NA	170	R 1,731	R 1,898
December	110	73	R 738	R 414	R 775	NA	132	R 2,059	RE 2,242
Total	**1,249**	**711**	**R 5,228**	**R 3,201**	**R 8,785**	**NA**	**2,732**	**R 19,946**	**R 21,905**
1997 January	R 107	82	R 910	R 479	804	NA	139	R 2,333	R 2,521
February	R 97	R 74	768	R 425	R 763	NA	143	R 2,099	R 2,270
March	F 107	F 70	F 644	F 363	F 779	NA	189	F 1,975	F 2,152
April	F 101	RF 62	RF 476	RF 293	F 747	NA	NA	RF 1,713	RF 1,876
May	F 104	F 53	F 279	F 199	F 737	NA	NA	1,479	1,636
5-Month Total	**E 516**	**E 340**	**E 3,076**	**E 1,760**	**E 3,830**	**NA**	**NA**	**E 9,598**	**E 10,455**
1996 5-Month Total	**519**	**340**	**3,208**	**1,789**	**3,726**	**NA**	**895**	**9,617**	**10,477**
1995 5-Month Total	**505**	**328**	**2,849**	**1,619**	**3,653**	**NA**	**1,099**	**9,220**	**10,055**

[a] Natural gas consumed in the operation of pipelines, primarily in compressors.

R=Revised data. NA=Not available. E=Estimate. F=Forecast. (s)=Less than 500 million cubic feet.

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

Sources: • **1973-1990:** Energy Information Administration (EIA), *Natural Gas Annual 1995,* Table 101. • **1991 forward:** EIA, *Natural Gas Monthly,* May 1997, Table 3, except for the March 1997 value for electric utilities, which comes from Table 7.3 of this report and column 7 which incorporates the values from column 6. Estimates for the most recent two months are derived from the Short-Term Integrated Forecasting System.

Table 4.5 Natural Gas in Underground Storage

(Volumes in Billion Cubic Feet)

	Natural Gas in Underground Storage, End of Period			Change in Working Gas from Same Period Previous Year		Storage Activity		
	Base Gas	Working Gas	Total[a]	Volume	Percent	Withdrawals	Injections	Net[b,c]
1973 Total	**2,864**	**2,034**	**4,898**	**305**	**17.6**	**1,533**	**1,974**	**-442**
1974 Total	**2,912**	**2,050**	**4,962**	**16**	**.8**	**1,701**	**1,784**	**-84**
1975 Total	**3,162**	**2,212**	**5,374**	**162**	**7.9**	**1,760**	**2,104**	**-344**
1976 Total	**3,323**	**1,926**	**5,250**	**-286**	**-12.9**	**1,921**	**1,756**	**165**
1977 Total	**3,391**	**2,475**	**5,866**	**549**	**28.5**	**1,750**	**2,307**	**-557**
1978 Total	**3,473**	**2,547**	**6,020**	**72**	**2.9**	**2,158**	**2,278**	**-120**
1979 Total	**3,553**	**2,753**	**6,306**	**207**	**8.1**	**2,047**	**2,295**	**-248**
1980 Total	**3,642**	**2,655**	**6,297**	**-99**	**-3.6**	**1,910**	**1,896**	**14**
1981 Total	**3,752**	**2,817**	**6,569**	**162**	**6.1**	**1,887**	**2,180**	**-293**
1982 Total	**3,808**	**3,071**	**6,879**	**255**	**9.0**	**2,094**	**2,399**	**-306**
1983 Total	**3,847**	**2,595**	**6,442**	**-476**	**-15.5**	**2,142**	**1,700**	**442**
1984 Total	**3,830**	**2,876**	**6,706**	**281**	**10.8**	**2,064**	**2,252**	**-188**
1985 Total	**3,842**	**2,607**	**6,448**	**-270**	**-9.4**	**2,359**	**2,128**	**231**
1986 Total	**3,819**	**2,749**	**6,567**	**142**	**5.5**	**1,812**	**1,952**	**-140**
1987 Total	**3,792**	**2,756**	**6,548**	**7**	**.3**	**1,881**	**1,887**	**-6**
1988 Total	**3,800**	**2,850**	**6,650**	**94**	**3.4**	**2,244**	**2,174**	**69**
1989 Total	**3,812**	**2,513**	**6,325**	**-337**	**-11.8**	**2,804**	**2,491**	**313**
1990 Total	**3,868**	**3,068**	**6,936**	**555**	**22.1**	**1,934**	**2,433**	**-499**
1991 Total	**3,954**	**2,824**	**6,778**	**-244**	**-8.0**	**2,689**	**2,608**	**80**
1992 Total	**4,044**	**2,597**	**6,641**	**-227**	**-8.0**	**2,724**	**2,555**	**168**
1993 Total	**4,327**	**2,322**	**6,649**	**-275**	**-10.6**	**2,717**	**2,760**	**-43**
1994 Total	**4,360**	**2,606**	**6,966**	**284**	**12.2**	**2,508**	**2,796**	**-288**
1995 January	4,365	2,045	6,410	466	29.5	644	45	599
February	4,368	1,542	5,910	451	41.4	564	44	519
March	4,362	1,332	5,694	374	39.0	327	104	223
April	4,360	1,379	5,740	207	17.7	127	177	-49
May	4,393	1,668	6,061	114	7.3	34	369	-335
June	4,406	2,014	6,420	118	6.2	40	410	-371
July	4,340	2,301	6,641	28	1.2	54	359	-306
August	4,339	2,495	6,834	-112	-4.3	86	293	-207
September	4,341	2,802	7,143	-110	-3.8	29	343	-313
October	4,338	2,996	7,334	-79	-2.6	68	274	-205
November	4,342	2,728	7,070	-249	-8.4	367	96	272
December	4,349	2,153	6,503	-453	-17.4	635	53	582
Total	**4,349**	**2,153**	**6,503**	**-453**	**-17.4**	**2,974**	**2,566**	**408**
1996 January	4,348	1,461	5,809	-584	-28.6	746	48	699
February	4,342	1,019	5,361	-522	-33.9	542	95	447
March	4,284	755	5,039	-577	-43.3	401	77	324
April	4,306	851	5,156	-529	-38.3	111	225	-114
May	4,325	1,158	5,483	-511	-30.6	43	371	-328
June	4,334	1,525	5,860	-489	-24.3	33	408	-375
July	4,329	1,893	6,223	-408	-17.7	46	415	-369
August	4,326	2,240	6,565	-255	-10.2	50	396	-345
September	4,331	2,597	6,928	-205	-7.3	29	393	-364
October	4,329	2,800	7,128	-196	-6.6	68	272	-204
November	4,333	2,544	6,878	-184	-6.8	351	88	264
December	4,335	2,170	6,505	17	.8	461	85	376
Total	**4,335**	**2,170**	**6,505**	**17**	**.8**	**2,883**	**2,872**	**11**
1997 January	4,334	1,497	5,831	36	2.4	732	59	672
February	4,336	1,154	5,491	135	13.3	405	49	356
March	R 4,331	R 985	R 5,316	R 230	R 30.4	R 280	R 124	156
April	RF 4,331	RF 1,049	RF 5,380	RF 198	RF 23.3	NA	NA	RF -64
May	F 4,331	F 1,369	F 5,700	F 211	F 18.2	NA	NA	F -320

[a] For total underground storage capacity at the end of each calendar year, see Note 8 at end of section.

[b] For 1980-1995, data differ from those shown on Table 4.1, which includes liquefied natural gas storage for that period.

[c] Positive numbers indicate that withdrawals are greater than injections. Negative numbers indicate that injections are greater than withdrawals. Net withdrawals or injections may not equal the difference between applicable ending stocks. See Note 8 at end of section.

R=Revised data. E=Estimate. F=Forecast.

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

Sources: See end of section.

Natural Gas Notes

1. Nonhydrocarbon Gases Removed: Annual data on nonhydrocarbon gases removed from marketed production—carbon dioxide, helium, hydrogen sulfide, and nitrogen—are from the Energy Information Administration (EIA) *Natural Gas Annual (NGA) 1992*. Data are not available prior to 1980. Monthly data are reported by three States and computed for six States. Monthly data are preliminary until after publication of the EIA *NGA*. Differences between annual data published in the EIA *NGA* and the sum of the preliminary monthly data (January-December) are allocated proportionally to the months to create final monthly data. For further information on methods of estimating preliminary monthly data, see the EIA *Natural Gas Monthly (NGM)*.

2. Production.

- Annual data: Final annual data are from the EIA *NGA*.
- Estimated monthly data: 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 *NGM*.
- Preliminary monthly data: Monthly data are considered preliminary until after publication of the EIA *NGA*. Preliminary monthly data are gathered from reports to the Interstate Oil Compact Commission and the U.S. Minerals Management Service. Volumetric data are converted, as necessary, to a standard 14.73 psi pressure base. Unless there are major changes, data are not revised until after publication of the EIA *NGA*.
- Final monthly data: Differences between annual data in the EIA *NGA* and the sum of preliminary monthly data (January-December) are allocated proportionally to the months to create final 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 are from the EIA *NGA*, where they are estimated on the basis of 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 *NGA*.

Preliminary monthly data are estimated on the basis of 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 *NGA*. Final monthly data are estimated by allocating annual extraction loss data to the months on the basis of total natural gas marketed production data from the EIA *NGA*.

4. Supplemental Gaseous Fuels: Any gaseous substance that, introduced into or commingled with natural gas, increases the volume available for disposition. Such substances include, but are not limited to, propane-air, refinery gas, coke oven gas, still gas, manufactured gas, biomass gas, or air or inert gases added for Btu stabilization.

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

Monthly data are considered preliminary until after the publication of the EIA *NGA*. 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. The ratio is applied to the monthly sum of the three elements to compute a monthly supplemental gaseous fuels figure.

5. Imports and Exports: The United States imports natural gas via pipeline from Canada and Mexico. Liquefied natural gas (LNG) arrives via tanker from Algeria and United Arab Emirates. One shipment of LNG was received from Indonesia in December 1986. Very small amounts of LNG arrived from Canada in 1973 (667 million cubic feet), 1977 (572 million cubic feet), and 1981 (6 million cubic feet). The United States exports natural gas via pipeline to Canada and Mexico and LNG via tanker to Japan.

Annual and final monthly data are from the annual EIA 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 *NGM*. Preliminary data are revised after the publication of the EIA *U.S. Imports and Exports of Natural Gas*.

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

Final data are from the EIA *NGA*. Monthly data are considered preliminary until after publication of the EIA *NGA*. For more detailed information on the methods of estimating preliminary and final monthly data, see the EIA *NGM*.

7. Balancing Item: The balancing item for natural gas represents the difference between the sum of the components of natural gas supply and the sum of components of natural gas disposition. The differences may be due to quantities lost or to the effects of data reporting problems. Reporting problems include differences due to the net result of conversions of flow data metered at varying temperature and pressure bases and converted to a standard temperature and pressure base; the effect of variations in company accounting and billing practices; differences between billing cycle and calendar period time frames; and imbalances resulting from the merger of data reporting systems which vary in scope, format, definitions, and type of respondents.

The increase of 0.2 trillion cubic feet (Tcf) in the "Balancing Item" category in 1983, followed by a decline of 0.5 Tcf in 1984, reflected unusually large differences resulting

from the use of the annual billing cycle (essentially December 15 through the following December 14) consumption data in conjunction with calendar year supply data. Record cold temperatures during the last half of December 1983 resulted in a reported 0.3 Tcf increase in net withdrawals from underground storage for peak shaving as compared with the same period in 1982, but the effect of this cold weather was reflected primarily in 1984 consumption data. For underground storage data, see Table F2 in the May 1985 *NGM*, which was published in July 1985.

8. Natural Gas Storage: Gas in storage at the end of a reporting period may not equal the quantity derived by adding or subtracting net injections or withdrawals from the quantity in storage at the end of the previous period. The 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.

Monthly underground storage data are collected from the Federal Energy Regulatory Commission (FERC) Forms FERC-8 (interstate data) and EIA-191 (intrastate data). Beginning in January 1991, all data are collected on the revised Form EIA-191. Injection and withdrawal data from the FERC-8/EIA-191 survey are adjusted to correspond to data from Form EIA-176 following publication of the EIA *NGA.*

The final monthly and annual storage and withdrawal data for 1980-1995 include both underground and liquefied natural gas (LNG) storage. Annual data on LNG additions and withdrawals are 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 the ratio to the annual LNG data.

Total underground storage capacity at the end of each calendar year since 1975 (first year data were available), in billion cubic feet, was:

1975	6,280	1986	8145
1976	6,544	1987	8,124
1977	6,678	1988	8,124
1978	6,890	1989	8,124
1979	6,929	1990	8,125
1980	7,434	1991	7,993
1981	7,805	1992	7,932
1982	7,915	1993	7,989
1983	7,985	1994	8,043
1984	8,043	1995	7,953
1985	8,087		

Current capacity is 7,953 billion cubic feet.

9. Forecast Values: Data values preceded by "F" in this section are forecast values. They are derived from EIA's Short-Term Integrated Forecasting System (STIFS). The model is driven primarily by data and assumptions about key macroeconomic variables, the world oil price, and weather. The natural gas forecast relies on other variables as well, such as gas wellhead prices, electric power generation by other sources, and U.S. gas import capacity. Each month, EIA staff review the model output and make adjustments, if appropriate, based on their knowledge of developments in the natural gas industry.

The STIFS model results are published quarterly in EIA's *Short-Term Energy Outlook,* which is available from the National Energy Information Center (202-586-8800) and accessible on the world wide web at http://www.eia.doe.gov. Documentation for the model and instructions for downloading and operating it on a personal computer are provided.

Sources for Table 4.5

Storage Activity

1973-1975 : Energy Information Administration (EIA) *Natural Gas Annual 1994, Volume 2,* Table 9.
1976-1979: EIA**,** *Natural Gas Production and Consumption 1979,* Table 1.
1980-1989: EIA, *Natural Gas Annual 1994,* Volume 2 Table 11.
1990 forward: EIA, *Natural Gas Monthly,* May 1997, Table 9. Estimates for the most recent 2 months are derived from the Short-Term Integrated Forecasting System. See Note 9 on this page.

Other Data

1973 and 1974: American Gas Association (AGA), *Gas Facts, 1972 Data, Table 57, Gas Facts, 1973 Data*, Table 57, and *Gas Facts, 1974 Data,* Table 40.
1975 and 1976: Federal Energy Administration (FEA), Form FEA-G318-M-O, "Underground Gas Storage Report," and Federal Power Commission (FPC), Form FPC-8, "Underground Gas Storage Report."
1977 and 1978: EIA, Form FEA-G-318-M-O, "Underground Gas Storage Report," and Federal Energy Regulatory Commission (FERC), Form FERC-8, "Underground Gas Storage Report.
1979-1989: EIA, Form EIA-191, "Underground Gas Storage Report," and FERC, Form FERC-8, "Underground Gas Storage Report."
1990 forward: EIA, *Natural Gas Monthly,* May 1997, Table 9. Estimates for the most recent 2 months are derived from the Short-Term Integrated Forecasting System. See Note 9 on this page.

Section 5. Oil and Gas Resource Development

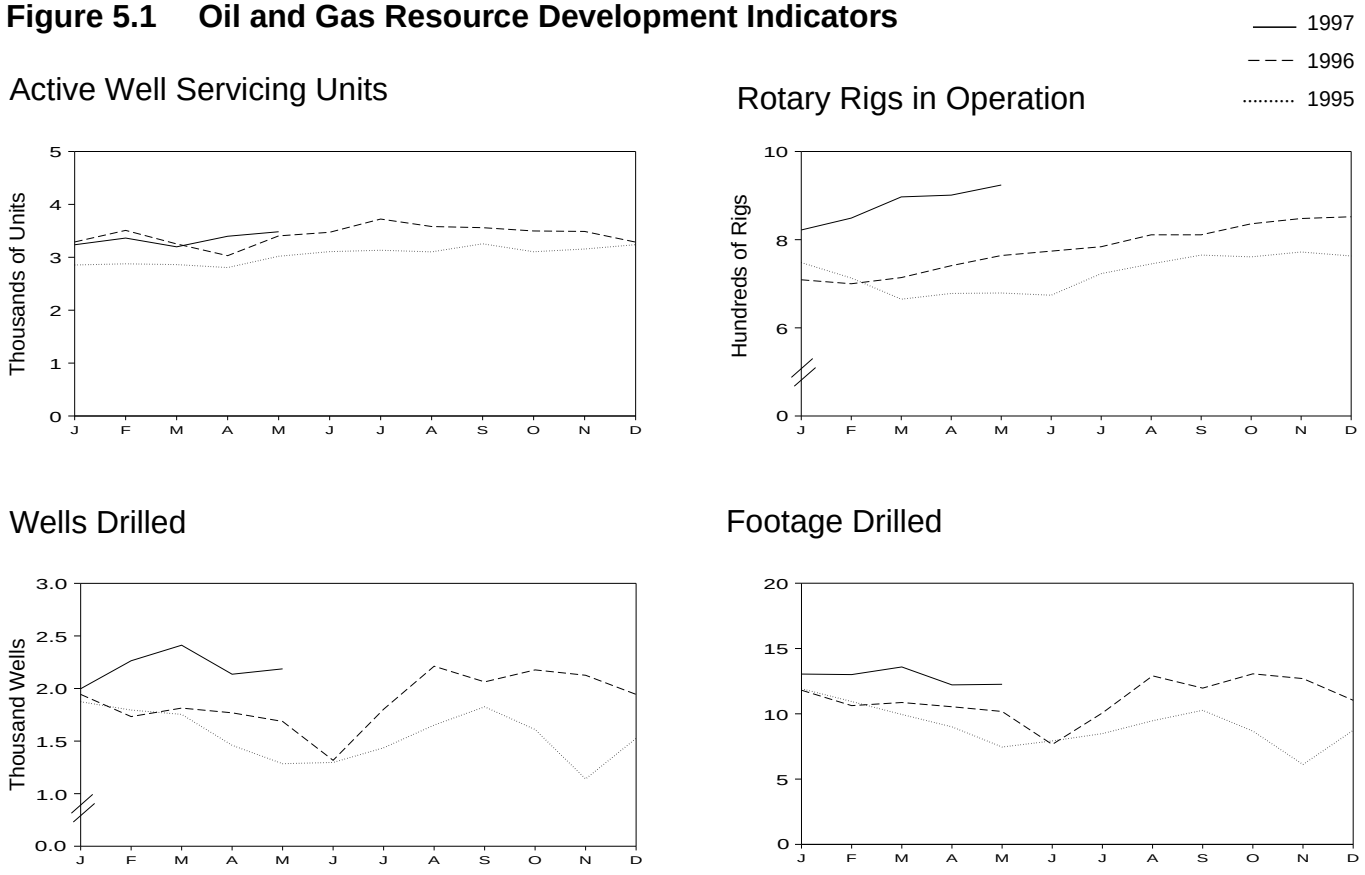
The May 1997 rotary rig count of 924 was 3 percent higher than the count in April and 21 percent higher than the count in May 1996. This is the first time since March of 1991 that the rotary rig count has been above 900 for 2 consecutive months. Of the total number of rigs in operation in May 1997, 804 were onshore and 120 were offshore. For May 1997, the number of onshore rigs was up 24 percent and the number of offshore rigs rose 3 percent from their May 1996 values.

Total footage drilled in May 1997 was 12.26 million feet, slightly higher than the footage drilled in April 1997 and 20 percent higher than that drilled in May 1996.

The estimated number of exploratory and development oil and gas wells drilled during May 1997 was 1,639, 2 percent higher than the previous month and 29 percent higher than the number drilled in May 1996. The estimated number of oil wells drilled was 841, and the estimated number of gas wells drilled was 798, 37 percent higher and 22 percent higher, respectively, than their May 1996 levels. The estimated number of dry holes drilled in May 1997 was 548, up 5 percent from April 1997 and up 32 percent from May 1996.

There were 3.5 thousand well servicing units active in May 1997, 3 percent more than in May 1996 and 2 percent more than in May 1995.

Figure 5.1 Oil and Gas Resource Development Indicators



Sources: Tables 5.1 and 5.2.

Table 5.1 Oil and Gas Drilling Activity Measurements

	Crews Engaged in Seismic Exploration			Rotary Rigs in Operation[a]					Total Footage Drilled[c]	Active Well Servicing Units[d]
				By Site		By Type				
	Offshore	Onshore	Total	Offshore	Onshore	Oil	Gas	Total[b]		
	Monthly Average			Weekly Average					Thousand Feet	Number
1973 Average	**23**	**227**	**250**	**84**	**1,110**	**NA**	**NA**	**1,194**	**139,427**	**NA**
1974 Average	**31**	**274**	**305**	**94**	**1,378**	**NA**	**NA**	**1,472**	**153,791**	**NA**
1975 Average	**30**	**254**	**284**	**106**	**1,554**	**NA**	**NA**	**1,660**	**181,046**	**NA**
1976 Average	**25**	**237**	**262**	**129**	**1,529**	**NA**	**NA**	**1,658**	**187,291**	**2,601**
1977 Average	**27**	**281**	**308**	**167**	**1,834**	**NA**	**NA**	**2,001**	**215,696**	**2,828**
1978 Average	**25**	**327**	**352**	**185**	**2,074**	**NA**	**NA**	**2,259**	**238,388**	**2,988**
1979 Average	**30**	**370**	**400**	**207**	**1,970**	**NA**	**NA**	**2,177**	**243,686**	**3,399**
1980 Average	**37**	**493**	**530**	**231**	**2,678**	**NA**	**NA**	**2,909**	**312,303**	**4,089**
1981 Average	**44**	**637**	**681**	**256**	**3,714**	**NA**	**NA**	**3,970**	**408,842**	**4,850**
1982 Average	**57**	**531**	**588**	**243**	**2,862**	**NA**	**NA**	**3,105**	**378,437**	**4,248**
1983 Average	**47**	**426**	**473**	**199**	**2,033**	**NA**	**NA**	**2,232**	**318,585**	**3,732**
1984 Average	**49**	**445**	**494**	**213**	**2,215**	**NA**	**NA**	**2,428**	**370,730**	**4,663**
1985 Average	**45**	**333**	**378**	**206**	**1,774**	**NA**	**NA**	**1,980**	**312,569**	**4,716**
1986 Average	**24**	**176**	**200**	**99**	**865**	**NA**	**NA**	**964**	**177,486**	**3,036**
1987 Average	**24**	**153**	**177**	**95**	**841**	**NA**	**NA**	**936**	**161,226**	**3,060**
1988 Average	**29**	**153**	**182**	**123**	**813**	**554**	**354**	**936**	**153,340**	**3,341**
1989 Average	**23**	**109**	**132**	**105**	**764**	**453**	**401**	**869**	**133,383**	**3,391**
1990 Average	**23**	**102**	**125**	**108**	**902**	**532**	**464**	**1,010**	**154,632**	**3,658**
1991 Average	**19**	**85**	**104**	**81**	**779**	**482**	**351**	**860**	**146,383**	**3,331**
1992 Average	**12**	**64**	**76**	**52**	**669**	**373**	**331**	**721**	**124,879**	**2,732**
1993 Average	**16**	**63**	**79**	**82**	**672**	**373**	**364**	**754**	**140,330**	**3,158**
1994 Average	**NA**	**NA**	**NA**	**102**	**673**	**335**	**427**	**775**	**127,361**	**2,961**
1995 January	NA	NA	NA	106	642	325	411	748	11,921	2,855
February	NA	NA	NA	100	613	326	375	713	10,942	2,877
March	NA	NA	NA	90	575	322	331	665	9,949	2,862
April	NA	NA	NA	91	587	328	336	678	9,002	2,806
May	NA	NA	NA	100	579	325	335	679	7,457	3,020
June	NA	NA	NA	96	578	301	352	674	7,925	3,107
July	NA	NA	NA	104	619	301	399	723	8,485	3,133
August	NA	NA	NA	103	642	327	399	745	9,468	3,103
September	NA	NA	NA	103	662	333	413	765	10,269	3,255
October	NA	NA	NA	105	656	332	414	761	8,677	3,105
November	NA	NA	NA	104	668	330	430	772	6,120	3,157
December	NA	NA	NA	109	654	325	427	763	8,732	3,239
Average	**NA**	**NA**	**NA**	**101**	**622**	**323**	**385**	**723**	**108,947**	**3,043**
1996 January	NA	NA	NA	111	598	295	406	709	11,807	3,290
February	NA	NA	NA	102	598	283	411	700	10,627	3,509
March	NA	NA	NA	96	618	286	421	714	10,867	3,253
April	NA	NA	NA	113	628	286	446	741	10,541	3,031
May	NA	NA	NA	116	648	288	467	764	R 10,180	3,405
June	NA	NA	NA	112	662	298	471	774	7,654	3,473
July	NA	NA	NA	107	677	290	488	784	10,068	3,723
August	NA	NA	NA	108	703	297	488	811	12,907	3,582
September	NA	NA	NA	109	702	301	505	811	11,968	3,560
October	NA	NA	NA	108	728	328	499	836	13,062	3,498
November	NA	NA	NA	107	741	363	482	848	R 12,697	3,489
December	NA	NA	NA	116	736	361	489	852	11,036	3,287
Average	**NA**	**NA**	**NA**	**108**	**671**	**306**	**464**	**779**	R **133,414**	**3,425**
1997 January	NA	NA	NA	110	712	342	478	822	13,044	3,237
February	NA	NA	NA	107	742	356	492	849	13,004	3,364
March	NA	NA	NA	127	770	377	518	897	13,588	3,198
April	NA	NA	NA	126	775	373	526	901	12,215	R 3,398
May	NA	NA	NA	120	804	379	541	924	12,260	E 3,483
5-Month Average	**NA**	**NA**	**NA**	**118**	**760**	**365**	**511**	**878**	**64,111**	E **3,334**
1996 5-Month Average	**NA**	**NA**	**NA**	**107**	**620**	**287**	**431**	**727**	**54,022**	**3,298**
1995 5-Month Average	**NA**	**NA**	**NA**	**97**	**598**	**325**	**356**	**695**	**49,271**	**2,884**

[a] Monthly data are averages of 4- or 5-week reporting periods, not calendar months. Annual data are averages of 52- or 53-week reporting periods, not calendar years.

[b] Sum of oil, gas, and miscellaneous other rigs, which is not shown.

[c] Values shown are totals.

[d] See Glossary.

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

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

Sources: • **Crews Engaged in Seismic Exploration:** Society of Exploration Geophysicists, Tulsa, Oklahoma, *Monthly Seismic Crew Count.* • **Rotary Rigs in Operation:** By Site - Baker Hughes, Inc., Houston, Texas, *Rotary Rigs Running--by State.* By Type - Baker Hughes, Inc., Houston, Texas, weekly phone recording. • **Total Footage Drilled:** Energy Information Administration computations, which are based on well reports submitted to the American Petroleum Institute by the Petroleum Information Corporation, Denver, Colorado. • **Active Well Servicing Units:** Association of Energy Service Companies, Dallas, Texas, *Field Reports.*

Table 5.2 Oil and Gas Wells Drilled

(Number of Wells)

	Exploratory				Development				Total			
	Oil	Gas	Dry	Total	Oil	Gas	Dry	Total	Oil	Gas	Dry	Total
1973 Total	**654**	**1,079**	**6,038**	**7,771**	**9,597**	**5,896**	**4,428**	**19,921**	**10,251**	**6,975**	**10,466**	**27,692**
1974 Total	**870**	**1,205**	**6,894**	**8,969**	**12,794**	**5,965**	**5,311**	**24,070**	**13,664**	**7,170**	**12,205**	**33,039**
1975 Total	**991**	**1,263**	**7,207**	**9,461**	**15,988**	**6,907**	**6,529**	**29,424**	**16,979**	**8,170**	**13,736**	**38,885**
1976 Total	**1,100**	**1,362**	**6,854**	**9,316**	**16,597**	**8,076**	**6,951**	**31,624**	**17,697**	**9,438**	**13,805**	**40,940**
1977 Total	**1,183**	**1,562**	**7,402**	**10,147**	**17,517**	**10,557**	**7,634**	**35,708**	**18,700**	**12,119**	**15,036**	**45,855**
1978 Total	**1,191**	**1,792**	**8,054**	**11,037**	**17,874**	**12,613**	**8,537**	**39,024**	**19,065**	**14,405**	**16,591**	**50,061**
1979 Total	**1,335**	**1,920**	**7,478**	**10,733**	**19,368**	**13,250**	**8,560**	**41,178**	**20,703**	**15,170**	**16,038**	**51,911**
1980 Total	**1,781**	**2,094**	**9,035**	**12,910**	**30,497**	**15,129**	**11,302**	**56,928**	**32,278**	**17,223**	**20,337**	**69,838**
1981 Total	**2,667**	**2,533**	**12,297**	**17,497**	**40,176**	**17,374**	**14,987**	**72,537**	**42,843**	**19,907**	**27,284**	**90,034**
1982 Total	**2,470**	**2,168**	**11,346**	**15,984**	**36,672**	**16,776**	**15,036**	**68,484**	**39,142**	**18,944**	**26,382**	**84,468**
1983 Total	**2,113**	**1,660**	**10,271**	**14,044**	**35,086**	**12,896**	**14,065**	**62,047**	**37,199**	**14,556**	**24,336**	**76,091**
1984 Total	**2,335**	**1,599**	**11,482**	**15,416**	**40,250**	**15,413**	**14,315**	**69,978**	**42,585**	**17,012**	**25,797**	**85,394**
1985 Total	**1,879**	**1,282**	**9,445**	**12,606**	**33,142**	**12,970**	**11,763**	**57,875**	**35,021**	**14,252**	**21,208**	**70,481**
1986 Total	**988**	**733**	**5,511**	**7,232**	**17,713**	**7,402**	**7,255**	**32,370**	**18,701**	**8,135**	**12,766**	**39,602**
1987 Total	**859**	**673**	**5,179**	**6,711**	**15,327**	**7,084**	**6,302**	**28,713**	**16,186**	**7,757**	**11,481**	**35,424**
1988 Total	**792**	**663**	**4,766**	**6,221**	**12,530**	**7,575**	**5,476**	**25,581**	**13,322**	**8,238**	**10,242**	**31,802**
1989 Total	**580**	**654**	**4,001**	**5,235**	**9,759**	**8,571**	**4,490**	**22,820**	**10,339**	**9,225**	**8,491**	**28,055**
1990 Total	**628**	**641**	**3,855**	**5,124**	**11,522**	**10,064**	**4,757**	**26,343**	**12,150**	**10,705**	**8,612**	**31,467**
1991 Total	**573**	**542**	**3,393**	**4,508**	**11,335**	**8,910**	**4,521**	**24,766**	**11,908**	**9,452**	**7,914**	**29,274**
1992 Total	**506**	**423**	**2,656**	**R 3,584**	**8,517**	**7,668**	**3,995**	**R 20,181**	**9,023**	**8,091**	**6,651**	**23,765**
1993 Total	**485**	**514**	**2,514**	**3,513**	**8,244**	**9,350**	**4,214**	**21,808**	**8,729**	**9,864**	**6,728**	**25,321**
1994 Total	**614**	**777**	**2,203**	**3,594**	**6,166**	**8,200**	**3,070**	**17,436**	**6,780**	**8,977**	**5,273**	**21,030**
1995 January	85	105	219	409	528	717	220	1,465	613	822	439	1,874
February	79	94	179	352	537	629	277	1,443	616	723	456	1,795
March	56	66	160	282	548	720	204	1,472	604	786	364	1,754
April	61	54	154	269	499	476	216	1,191	560	530	370	1,460
May	51	51	132	234	470	413	168	1,051	521	464	300	1,285
June	69	52	128	249	491	393	164	1,048	560	445	292	1,297
July	59	R 45	153	R 257	496	R 451	232	R 1,179	555	496	385	1,436
August	59	R 52	182	R 293	615	R 553	191	R 1,359	674	605	373	1,652
September	62	92	212	366	580	650	230	1,460	642	742	442	1,826
October	55	75	209	339	516	547	208	1,271	571	622	417	1,610
November	34	72	123	229	338	415	158	911	372	487	281	1,140
December	64	77	109	250	526	570	180	1,276	590	647	289	1,526
Total	**734**	**835**	**1,960**	**3,529**	**6,144**	**6,534**	**2,448**	**15,126**	**6,878**	**7,369**	**4,408**	**18,655**
1996 January	77	R 116	175	R 368	600	R 653	323	R 1,576	677	769	498	1,944
February	58	66	143	267	587	654	225	1,466	645	720	368	1,733
March	61	R 65	178	R 304	628	R 640	242	R 1,510	689	705	420	1,814
April	77	R 72	159	R 308	610	R 584	267	R 1,461	687	656	426	1,769
May	48	R 85	189	R 322	R 568	R 570	227	R 1,365	R 616	R 655	416	R 1,687
June	44	51	207	302	413	447	155	1,015	457	498	362	1,317
July	64	90	148	302	575	718	208	1,501	639	808	356	1,803
August	90	93	218	401	716	773	322	1,811	806	866	540	2,212
September	61	59	190	310	685	809	259	1,753	746	868	449	2,063
October	86	83	224	393	545	912	327	1,784	631	995	551	2,177
November	R 87	R 78	176	R 341	R 668	R 825	R 292	R 1,785	R 755	R 903	R 468	R 2,126
December	69	85	176	330	616	747	251	1,614	685	832	427	1,944
Total	**R 822**	**R 943**	**2,183**	**R 3,948**	**R 7,211**	**R 8,332**	**R 3,098**	**R 18,641**	**R 8,033**	**R 9,275**	**R 5,281**	**R 22,589**
1997 January	R 67	R 76	190	R 333	R 524	R 867	274	R 1,665	591	943	464	1,998
February	83	R 54	180	R 317	772	R 892	283	R 1,947	855	946	463	2,264
March	90	84	213	387	871	858	296	2,025	961	942	509	2,412
April	89	70	207	366	753	701	316	1,770	842	771	523	2,136
May	83	73	225	381	758	725	323	1,806	841	798	548	2,187
5-Month Total	**412**	**357**	**1,015**	**1,784**	**3,678**	**4,043**	**1,492**	**9,213**	**4,090**	**4,400**	**2,507**	**10,997**
1996 5-Month Total	**321**	**404**	**844**	**1,569**	**2,993**	**3,101**	**1,284**	**7,378**	**3,314**	**3,505**	**2,128**	**8,947**
1995 5-Month Total	**332**	**370**	**844**	**1,546**	**2,582**	**2,955**	**1,085**	**6,622**	**2,914**	**3,325**	**1,929**	**8,168**

R=Revised data.

Notes: • Service wells, stratigraphic tests, and core tests are excluded. • Due to the method of estimation, data shown on this page are frequently revised. See end of section. • Geographic coverage is the 50 States and the District of Columbia.

Sources: Energy Information Administration computations, which are based on well reports submitted by the Petroleum Information Corporation, Denver, Colorado.

Oil and Gas Resource Development Notes

Three well types are considered in the *Monthly Energy Review* (*MER*) drilling statistics: "completed for oil," "completed for gas," and "dry hole." Wells that productively encounter both crude oil and natural gas are categorized as "completed for oil." Both development wells and exploratory wells (new field wildcats, new pool tests, and extension tests) are included in the statistics. All other classes of wells drilled in connection with the search for producible hydrocarbons are excluded.

Prior to the March 1985 *MER*, drilling statistics consisted of completion data for the above types and classes of wells as reported to the American Petroleum Institute (API) during a given month. Due to time lags between the date of well completion and the date of completion reporting to the API, as-reported well completions proved to be an inaccurate indicator of drilling activity. During 1982, for example, as-reported well completions rose, while the number of actual completions fell. Consequently, the drilling statistics published since the March 1985 *MER* are Energy Information Administration-generated (EIA) estimates produced by statistically imputing well counts and footage based on the partial data available from the API.

Estimates for a given month are first published in the *MER* for that month. Revisions of the "oil," "gas," and "dry" components are made in the 6th, 12th, and 24th subsequent months, as newly reported data allow refinement of the estimates. Unscheduled revisions may also occur when the latest estimate differs by more than 15 percent during the first 5 months, more than 10 percent during the next 6 months, or more than 2 percent thereafter through 5 years. After 5 years, the reported API data are published in lieu of EIA-generated estimates. A comprehensive, one-time reestimation of Total Footage Drilled (Table 5.1) and Oil and Gas Wells Drilled (Table 5.2) from 1990 through March 1995 was published in the June 1995 *MER*.

Since 1985 when EIA began to produce estimates from the partial data, changes in the industry and in data collection systems have introduced greater uncertainty into the estimation results. Consequently, EIA has a project underway to enhance the estimation system, and an adjustment to the system is anticipated at the end of 1997. Meanwhile, readers should be aware that estimates published for the most recent months may not be as reliable as comparable estimates in the past.

Additional information about the EIA estimation methodology may be found in "Estimating Well Completions," the feature article published in the March 1985 *MER*.

Section 6. Coal

Coal production in May 1997 totaled 93 million short tons, 4 percent higher than the 89 million short tons produced in May 1996. Coal production during the first 5 months of 1997 totaled 443 million short tons, 2 percent higher than production during the first 5 months of 1996.

Electric utility coal consumption in March 1997 totaled 69 million short tons, less than 1 percent higher than the consumption level in March 1996. Electric utility coal consumption during the first quarter of 1997 totaled 218 million short tons, 2 percent higher than the 215 million short tons consumed during the first quarter of 1996.

Electric utility coal stocks were 113 million short tons at the end of March 1997, 4 percent below the 178 million short tons at the end of March 1996.

Coal exports in March 1997 totaled 7 million short tons, 1 percent higher than exports in March 1996.

Coal exports during the first quarter of 1997 totaled 20 million short tons, 2 percent lower than exports during the first quarter of 1996.

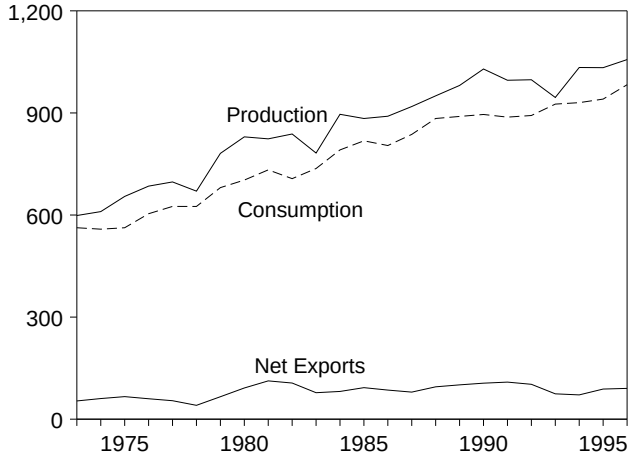
Coal imports in March 1997 totaled 585 thousand short tons, 23 percent higher than imports in March 1996.

Coal imports during the first quarter of 1997 totaled 1 million short tons, 22 percent lower than imports during the first quarter of 1996.

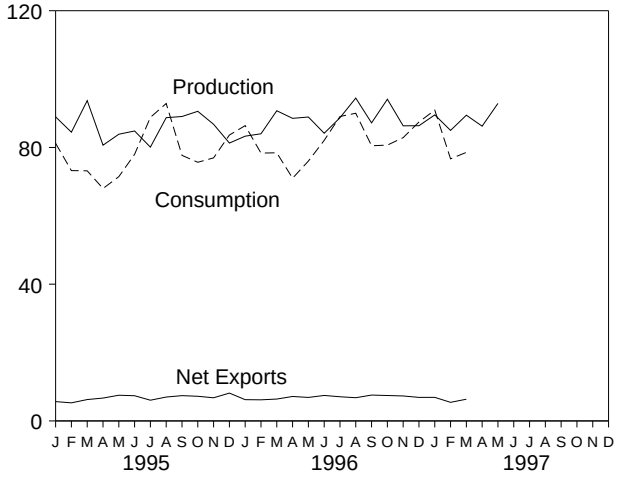
Figure 6.1 Coal

(Million Short Tons)

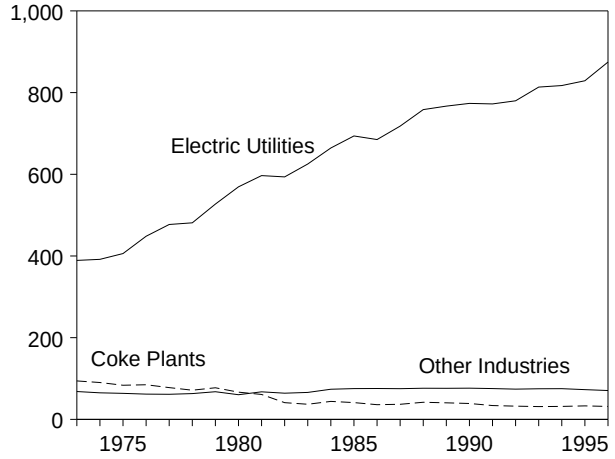
Overview, 1973-1996



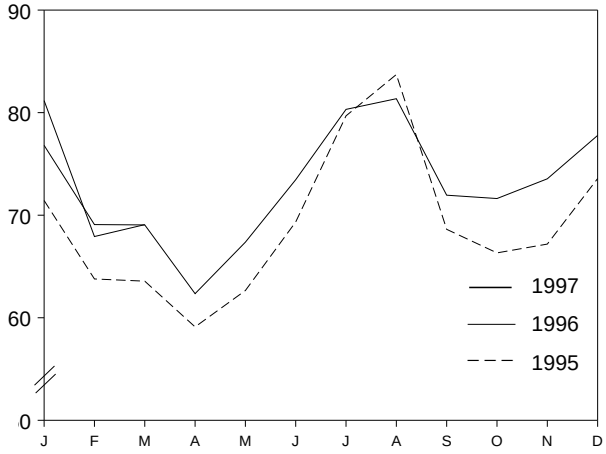
Overview, Monthly



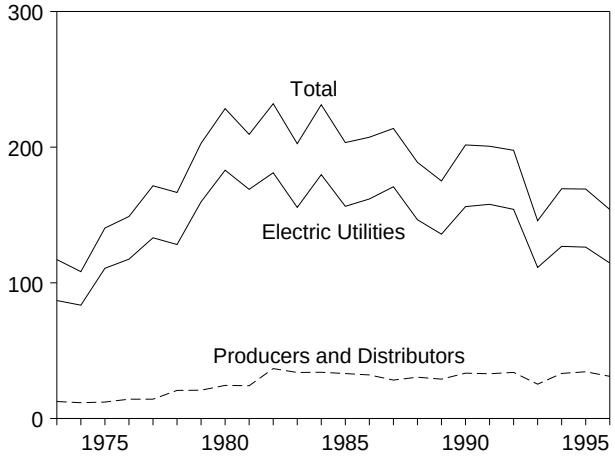
Consumption by Sector, 1973-1996



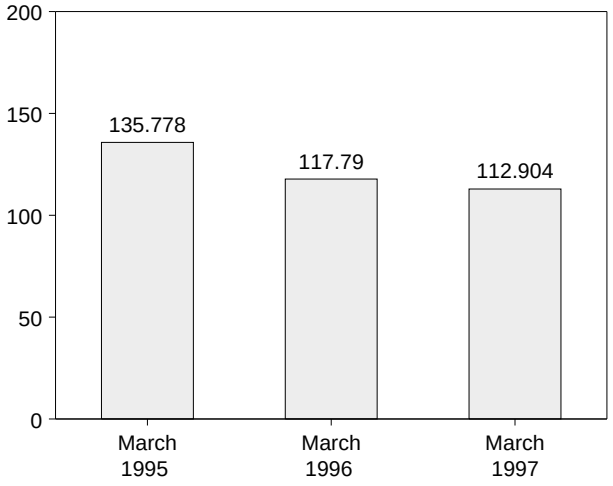
Consumption by Electric Utilities, Monthly



Stocks, End of Year, 1973-1996



Stocks at Electric Utilities, End of Month



Note: Because vertical scales differ, graphs should not be compared.
Sources: Tables 6.1, 6.2, and 6.3.

Table 6.1 Coal Overview

(Thousand Short Tons)

	Production	Consumption	Imports[a]	Exports	Stocks[b]
1973 Total	**598,568**	**562,584**	**127**	**53,587**	**117,155**
1974 Total	**610,023**	**558,402**	**2,080**	**60,661**	**108,237**
1975 Total	**654,641**	**562,640**	**940**	**66,309**	**140,391**
1976 Total	**684,913**	**603,790**	**1,203**	**60,021**	**148,899**
1977 Total	**697,205**	**625,291**	**1,647**	**54,312**	**171,543**
1978 Total	**670,164**	**625,225**	**2,953**	**40,714**	**166,606**
1979 Total	**781,134**	**680,524**	**2,059**	**66,042**	**202,812**
1980 Total	**829,700**	**702,730**	**1,194**	**91,742**	**228,407**
1981 Total	**823,775**	**732,627**	**1,043**	**112,541**	**209,423**
1982 Total	**838,112**	**706,911**	**742**	**106,277**	**232,038**
1983 Total	**782,091**	**736,672**	**1,271**	**77,772**	**202,584**
1984 Total	**895,921**	**791,296**	**1,286**	**81,483**	**231,300**
1985 Total	**883,638**	**818,049**	**1,952**	**92,680**	**203,367**
1986 Total	**890,315**	**804,231**	**2,212**	**85,518**	**207,319**
1987 Total	**918,762**	**836,941**	**1,747**	**79,607**	**213,780**
1988 Total	**950,265**	**883,642**	**2,134**	**95,023**	**188,831**
1989 Total	**980,729**	**889,699**	**2,851**	**100,815**	**175,087**
1990 Total	**1,029,076**	**895,480**	**2,699**	**105,804**	**201,629**
1991 Total	**995,984**	**887,621**	**3,390**	**108,969**	**200,682**
1992 Total	**997,545**	**892,421**	**3,803**	**102,516**	**197,685**
1993 Total	**945,424**	**925,944**	**7,309**	**74,519**	**145,742**
1994 Total	**1,033,504**	**930,201**	**7,584**	**71,359**	**169,358**
1995 January	88,953	81,201	530	6,184	171,339
February	84,472	73,236	486	5,774	177,689
March	93,696	73,167	780	7,029	186,463
April	80,660	67,990	525	7,212	192,948
May	83,874	71,456	517	8,036	198,349
June	84,818	77,993	567	7,935	193,761
July	80,093	88,801	566	6,632	178,797
August	88,712	92,860	547	7,530	167,780
September	89,052	77,692	613	8,012	167,932
October	90,573	75,664	613	7,823	170,876
November	86,779	76,947	721	7,494	173,096
December	81,292	83,632	738	8,883	169,083
Total	**1,032,974**	**940,638**	**7,201**	**88,547**	**169,083**
1996 January	83,304	R 86,388	524	6,743	R 159,856
February	84,007	R 78,344	715	6,892	R 159,293
March	90,745	R 78,449	474	6,880	161,656
April	88,515	R 71,015	172	7,330	170,132
May	88,909	R 76,016	790	7,663	175,000
June	84,147	R 82,082	591	8,046	171,646
July	88,684	R 89,055	802	7,877	163,955
August	94,441	R 90,002	620	7,412	160,672
September	87,189	R 80,493	649	8,214	161,367
October	94,107	80,684	642	8,077	163,824
November	86,330	82,867	668	7,976	160,757
December	86,361	87,444	479	7,361	154,044
Total	**1,056,739**	R **982,838**	**7,126**	**90,473**	**154,044**
1997 January	89,528	E 90,925	409	7,298	E 143,354
February	84,983	E 76,675	338	5,778	E 148,131
March	89,438	E 78,565	585	6,936	E 154,825
April	86,226	NA	NA	NA	NA
May	92,882	NA	NA	NA	NA
5-Month Total	**443,056**	**NA**	**NA**	**NA**	**NA**
1996 5-Month Total	**435,480**	**390,211**	**2,675**	**35,509**	**175,000**
1995 5-Month Total	**431,655**	**367,050**	**2,838**	**34,236**	**198,349**

[a] Includes Puerto Rico.

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

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

Notes: • Data through 1995 are final. Subsequent data are preliminary. • For methodology used to calculate production, consumption, and stocks, see Notes 1, 2, and 3 at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Sources: See end of section.

Table 6.2 Coal Consumption by End-Use Sector

(Thousand Short Tons)

	Residential and Commercial	Industrial		Electric Utilities	Total
		Coke Plants	Other Industrial Including Transportation		
1973 Total	**11,117**	**94,101**	**68,154**	**389,212**	**562,584**
1974 Total	**11,417**	**90,191**	**64,983**	**391,811**	**558,402**
1975 Total	**9,410**	**83,598**	**63,670**	**405,962**	**562,640**
1976 Total	**8,916**	**84,704**	**61,799**	**448,371**	**603,790**
1977 Total	**8,954**	**77,739**	**61,472**	**477,126**	**625,291**
1978 Total	**9,511**	**71,394**	**63,085**	**481,235**	**625,225**
1979 Total	**8,388**	**77,368**	**67,717**	**527,051**	**680,524**
1980 Total	**6,452**	**66,657**	**60,347**	**569,274**	**702,730**
1981 Total	**7,421**	**61,014**	**67,395**	**596,797**	**732,627**
1982 Total	**8,240**	**40,908**	**64,097**	**593,666**	**706,911**
1983 Total	**8,448**	**37,033**	**65,980**	**625,211**	**736,672**
1984 Total	**9,130**	**44,022**	**73,745**	**664,399**	**791,296**
1985 Total	**7,779**	**41,056**	**75,372**	**693,841**	**818,049**
1986 Total	**7,667**	**35,924**	**75,583**	**685,056**	**804,231**
1987 Total	**6,914**	**36,957**	**75,175**	**717,894**	**836,941**
1988 Total	**7,130**	**41,888**	**76,252**	**758,372**	**883,642**
1989 Total	**6,167**	**40,508**	**76,134**	**766,888**	**889,699**
1990 Total	**6,724**	**38,877**	**76,330**	**773,549**	**895,480**
1991 Total	**6,094**	**33,854**	**75,405**	**772,268**	**887,621**
1992 Total	**6,153**	**32,366**	**74,042**	**779,860**	**892,421**
1993 Total	**6,221**	**31,323**	**74,892**	**813,508**	**925,944**
1994 Total	**6,013**	**31,740**	**75,179**	**817,270**	**930,201**
1995 January	638	2,758	6,374	71,431	81,201
February	572	2,549	6,333	63,782	73,236
March	428	2,833	6,337	63,569	73,167
April	449	2,769	5,663	59,110	67,990
May	291	2,820	5,690	62,655	71,456
June	292	2,702	5,656	69,342	77,993
July	396	2,739	5,978	79,688	88,801
August	399	2,787	5,954	83,720	92,860
September	268	2,804	5,995	68,624	77,692
October	340	2,715	6,283	66,326	75,664
November	720	2,770	6,272	67,185	76,947
December	1,031	2,766	6,261	73,574	83,632
Total	**5,824**	**33,011**	**72,796**	**829,007**	**940,638**
1996 January	676	R 2,714	R 6,189	76,808	R 86,388
February	561	R 2,523	R 6,174	69,086	R 78,344
March	510	R 2,721	R 6,166	69,052	R 78,449
April	481	R 2,611	R 5,572	62,351	R 71,015
May	369	R 2,669	R 5,607	67,371	R 76,016
June	314	R 2,686	R 5,621	73,461	R 82,082
July	429	R 2,708	5,599	80,318	R 89,055
August	411	R 2,676	5,553	81,362	R 90,002
September	324	R 2,631	5,586	71,951	R 80,493
October	331	2,572	R 6,156	71,625	80,684
November	643	2,519	6,155	73,549	82,867
December	772	2,675	6,217	77,780	87,444
Total	**5,824**	**31,706**	R **70,594**	**874,714**	R **982,838**
1997 January	E 698	E 2,679	E 6,373	81,175	E 90,925
February	E 528	E 2,410	E 5,817	67,920	E 76,675
March	E 376	E 2,708	E 6,400	69,081	E 78,565
3-Month Total	E **1,602**	E **7,797**	E **18,590**	**218,175**	E **246,164**
1996 3-Month Total	**1,747**	**7,958**	**18,529**	**214,946**	**243,180**
1995 3-Month Total	**1,638**	**8,140**	**19,043**	**198,782**	**227,604**

R=Revised data. E=Estimate.

Notes: • For sector-specific reporting and estimating information, see Note 2 at end of section. • Data through 1994 are final. Subsequent data are preliminary. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Sources: See end of section.

Table 6.3 Coal Stocks, End of Period

(Thousand Short Tons)

	Consumer				Producers and Distributors	Total[a]
	Coke Plants	Other Industrial	Electric Utilities	Total[a]		
1973 Year	**6,998**	**10,370**	**86,967**	**104,625**	**12,530**	**117,155**
1974 Year	**6,209**	**6,605**	**83,509**	**96,603**	**11,634**	**108,237**
1975 Year	**8,797**	**8,529**	**110,724**	**128,283**	**12,108**	**140,391**
1976 Year	**9,902**	**7,100**	**117,436**	**134,678**	**14,221**	**148,899**
1977 Year	**12,816**	**11,063**	**133,219**	**157,318**	**14,225**	**171,543**
1978 Year	**8,278**	**9,048**	**128,225**	**145,911**	**20,695**	**166,606**
1979 Year	**10,155**	**11,777**	**159,714**	**181,986**	**20,826**	**202,812**
1980 Year	**9,067**	**11,951**	**183,010**	**204,028**	**24,379**	**228,407**
1981 Year	**6,475**	**9,906**	**168,893**	**185,274**	**24,149**	**209,423**
1982 Year	**4,642**	**9,479**	**181,132**	**195,254**	**36,784**	**232,038**
1983 Year	**4,346**	**8,710**	**155,598**	**168,654**	**33,931**	**202,584**
1984 Year	**6,166**	**11,317**	**179,727**	**197,211**	**34,090**	**231,300**
1985 Year	**3,420**	**10,438**	**156,376**	**170,234**	**33,133**	**203,367**
1986 Year	**2,992**	**10,429**	**161,806**	**175,226**	**32,093**	**207,319**
1987 Year	**3,884**	**10,777**	**170,797**	**185,459**	**28,321**	**213,780**
1988 Year	**3,137**	**8,768**	**146,507**	**158,413**	**30,418**	**188,831**
1989 Year	**2,864**	**7,363**	**135,860**	**146,087**	**29,000**	**175,087**
1990 Year	**3,329**	**8,716**	**156,166**	**168,210**	**33,418**	**201,629**
1991 Year	**2,773**	**7,061**	**157,876**	**167,711**	**32,971**	**200,682**
1992 Year	**2,597**	**6,965**	**154,130**	**163,692**	**33,993**	**197,685**
1993 Year	**2,401**	**6,716**	**111,341**	**120,458**	**25,284**	**145,742**
1994 Year	**2,657**	**6,585**	**126,897**	**136,139**	**33,219**	**169,358**
1995 January	2,678	6,226	126,136	135,040	36,299	171,339
February	2,698	5,866	129,745	138,310	39,379	177,689
March	2,719	5,507	135,778	144,004	42,460	186,463
April	2,687	5,554	142,365	150,606	42,341	192,948
May	2,656	5,601	147,869	156,126	42,223	198,349
June	2,624	5,649	143,385	151,657	42,104	193,761
July	2,575	5,778	130,311	138,663	40,134	178,797
August	2,525	5,907	121,185	129,617	38,163	167,780
September	2,476	6,036	123,227	131,739	36,193	167,932
October	2,528	5,925	126,814	135,266	35,610	170,876
November	2,580	5,813	129,676	138,069	35,027	173,096
December	**2,632**	**5,702**	**126,304**	**134,639**	**34,444**	**169,083**
1996 January	2,616	R 5,279	116,715	R 124,610	35,247	R 159,856
February	2,600	R 4,856	115,789	R 123,244	36,049	R 159,293
March	2,583	4,433	117,790	124,806	36,851	161,656
April	2,589	R 4,477	126,050	133,117	37,015	170,132
May	2,595	4,522	130,703	137,821	37,179	175,000
June	2,601	4,567	127,134	134,302	37,344	171,646
July	2,672	4,812	120,315	127,799	36,156	163,955
August	2,743	5,057	117,904	125,704	34,968	160,672
September	2,814	5,302	119,472	127,588	33,780	161,367
October	2,765	5,431	122,753	130,949	32,875	163,824
November	2,716	5,560	120,511	128,787	31,970	160,757
December	**2,667**	**5,689**	**114,623**	**122,979**	**31,065**	**154,044**
1997 January	E 1,771	E 4,467	105,116	E 111,354	E 32,000	E 143,354
February	E 1,787	E 4,599	107,745	E 114,131	E 34,000	E 148,131
March	E 1,937	E 4,984	112,904	E 119,825	E 35,000	E 154,825

[a] Includes stocks held at retail dealers for consumption by the residential and commercial sector in thousand short tons: 1973 290; 1974 280; 1975 233; 1976 240; 1977 220; 1978 360; and 1979 340.

R=Revised data. E=Estimate.

Notes: • For sector-specific reporting and estimating information, see Note 3 at end of section. • Data through 1994 are final. Subsequent data are preliminary. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Sources: See end of section.

Coal Notes

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

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

2. Consumption: Coal consumption data are reported by major end-use sector. Estimated data for the most recent months (designated by an "E") are derived from forecasted values shown in the EIA *Short-Term Energy Outlook* (DOE/EIA-0202) table titled "Supply and Disposition of Coal: Mid World Oil Price Case." The monthly estimates are one-third of the quarterly values shown in the then current issue of the publication, regularly released in February, May, October, and November. The estimates are revised quarterly as collected data become available from the data sources. Sector-specific information follows.

- Residential and Commercial—Prior to 1980, monthly consumption estimates for the residential and commercial sector were derived by using reported data to modify baseline figures developed by the Bureau of Mines. From 1980-1987, monthly estimates were derived by proportioning reported quarterly data by using the ratios of monthly-to-quarterly consumption data in 1979, the last year in which monthly data were reported on Form EIA-2. During 1981 and 1982, the estimates were also modified to reflect air temperature degree-days. Quarterly consumption data were taken directly from reported data and were defined as distribution to the residential and commercial sector as reported by coal producers and distributors on Form EIA-6. Beginning in January 1988, monthly residential and commercial consumption estimates are derived from reported quarterly data by using monthly national average population weighted heating/cooling degree-days obtained from the National Oceanic and Atmospheric Administration. The monthly ratios are the monthly national sum of heating and cooling degree-days as a proportion of the quarterly national sum. Quarterly consumption data are taken directly from reported data.

- Coke Plants—Prior to 1980, monthly coke plant consumption data were taken directly from reported data. From 1980-1987, coke plant consumption estimates were derived by proportioning reported quarterly data by using the ratios of monthly-to-quarterly consumption data in 1979, the last year in which monthly data were reported. Beginning in January 1988, monthly coke plant consumption estimates are derived from the reported quarterly data by using monthly ratios of raw steel production data from the American Iron and Steel Institute. The ratios are the monthly raw steel production from open hearth and basic oxygen process furnaces as a proportion of the quarterly production from those kinds of furnaces.

- Other Industrial—Prior to 1978, monthly consumption data for the other industrial sector (all industrial users minus coke plants) were derived by using reported data to modify baseline consumption figures from the most recent Bureau of the Census Annual Survey of Manufactures or Census of Manufactures. For 1978 and 1979, monthly estimates were derived from data reported on Forms EIA-3 and EIA-6. From 1980-1987, monthly figures were estimated by proportioning quarterly data by using the ratios of monthly-to-quarterly consumption data in 1979, the last year in which monthly data were reported on Form EIA-3. Quarterly consumption data were derived by adding beginning stocks at manufacturing plants to current receipts and subtracting ending stocks at manufacturing plants. In this calculation, current receipts were the greater of either reported receipts from manufacturing plants (Form EIA-3) or reported shipments to the other industrial sector (Form EIA-6), thereby ensuring that agriculture, forestry, fishing, mining, and construction consumption data were included where appropriate. Starting in January 1988, monthly consumption for the other industrial sector is estimated from reported quarterly data by using ratios derived from industrial production indices published by the Board of Governors of the Federal Reserve System. Indices for six major industry groups are used as the basis

for calculating the ratios: foods, Standard Industrial Classification (SIC) 20; paper and products, SIC 26; chemicals and products, SIC 28; petroleum products, SIC 29; clay, glass, and stone products, SIC 32; and primary metals, SIC 33. The monthly ratios are computed as the monthly sum of the weighted indices as a proportion of the quarterly sum of the weighted indices by using the 1977 proportion as the weights
.

- Electric Utilities—Monthly consumption data for electric utility plants are taken directly from reported data.

3. Stocks: Coal stocks data are reported by major end-use sector. Estimated data for the most recent months (designated by an "E") are derived from forecasted values shown in the EIA *Short-Term Energy Outlook* (DOE/EIA-0202) table titled "Supply and Disposition of Coal: Mid World Oil Price Case." The monthly estimates are one-third of the quarterly values shown in the then current issue of the publication, regularly released in February, May, October, and November. The estimates are revised quarterly as collected data become available from the data sources. Sector-specific information follows.

- Coke Plants—Prior to 1980, monthly stocks at coke plants were taken directly from reported data. From 1980 forward, coke plant stocks are estimated by using one-third of the current quarterly change to indicate the monthly change in stocks. Quarterly stocks are taken directly from data reported on Form EIA-5.
- Other Industrial—Prior to 1978, stocks for the other industrial sector were derived by using reported data to modify baseline figures from a one-time Bureau of Mines survey of consumers. For 1978-1982, monthly estimates were derived by judgmentally proportioning reported quarterly data based on representative seasonal patterns of supply and demand. From 1983 forward, other industrial coal stocks are estimated as indicated above for coke plants. Quarterly stocks are taken directly from data reported on Form EIA-3 and therefore include only manufacturing industries; data for agriculture, forestry, fishing, mining, and construction stocks are not available.
- Electric Utilities—Monthly stocks data at electric utility plants are taken directly from reported data.
- Producers and Distributors—Quarterly stocks at producers and distributors are taken directly from reported data. Monthly data are estimated by using one-third of the current quarterly change to indicate the monthly change in stocks.

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

5. Additional Information: EIA's *Quarterly Coal Report* provides additional information about coal data and estimation procedures.

Sources for Table 6.1

Production

1973-September 1977—U.S. Department of the Interior, Bureau of Mines, *Minerals Yearbook* and *Minerals Industry Surveys.*
October 1977 forward—Energy Information Administration, *Weekly Coal Production.*

Consumption

Table 6.2.

Imports and Exports

U.S. Department of Commerce, Bureau of the Census, Monthly Reports IM-145 (Imports) and EM-545 (Exports).

Stocks

Table 6.3.

Sources for Table 6.2

Residential and Commercial

1973-1976—U.S. Department of the Interior (DOI), Bureau of Mines (BOM), *Minerals Yearbook***.**
January-September 1977—DOI, BOM, Form 6-1400, "Monthly Coal Report, Retail Dealers-Upper Lake Docks."
October 1977-1979—Energy Information Administration (EIA), Form EIA-2, "Monthly Coal Report, Retail Dealers-Upper Lake Docks."
1980 forward—EIA, Form EIA-6, "Coal Distribution Report," quarterly.

Coke Plants

1973-September 1977—DOI, BOM, *Minerals Yearbook* and *Minerals Industry Surveys*
October 1977-1980—EIA, Form EIA-5/5A, "Coke and Coal Chemicals-Monthly/Annual Supplement."
1981-1984—EIA, Form EIA-5/5A, "Coke Plant Report-Quarterly/Annual Supplement."
1985 forward—EIA, Form EIA-5, "Coke Plant Report-Quarterly."

Other Industrial

1973-September 1977—DOI, BOM, *Minerals Yearbook* and *Minerals Industry Surveys.*
October 1977-1979—EIA, Form EIA-3, "Monthly Coal Consumption Report-Manufacturing Plants."
1980 forward—EIA, Form EIA-3, "Quarterly Coal Consumption Report-Manufacturing Plants," and Form EIA-6, "Coal Distribution Report," quarterly.

Electric Utilities

1973-September 1977—DOI, BOM, *Minerals Yearbook* and *Minerals Industry Surveys.*

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

Sources for Table 6.3

Coke Plants

1973-September 1977—U.S. Department of the Interior (DOI), Bureau of Mines (BOM), *Minerals Yearbook* and *Minerals Industry Surveys*.
October 1977-1980—Energy Information Administration (EIA), Form EIA-5/5A, "Coke and Coal Chemicals-Monthly/Annual."
1981-1984—EIA, Form EIA 5/5A, "Coke Plant Report-Quarterly/Annual Supplement."
1985 forward—EIA, Form EIA-5, "Coke Plant Report-Quarterly."

Other Industrial

1973-September 1977—DOI, BOM, *Minerals Yearbook* and *Minerals Industry Surveys.*
October 1977-1979—EIA, Form EIA-3, "Monthly Coal Consumption Report-Manufacturing Plants."
1980 forward—EIA, Form EIA-3, "Quarterly Coal Consumption Report-Manufacturing Plants," and Form EIA-6, "Coal Distribution Report," quarterly.

Electric Utilities

1973-September 1977—DOI, BOM, *Minerals Yearbook* and *Minerals Industry Surveys.*
October 1977 forward—EIA, Form EI-A759 (formerly Form FPC-4), "Monthly Power Plant Report."

Producers and Distributors

EIA, Form EIA-6, "Coal Distribution Report," quarterly.

Section 7. Electricity

During March 1997, electric utilities generated 245 billion kilowatthours of electricity, 1 percent less than in March 1996. Coal-fired generation totaled 138 billion kilowatthours, 1 percent lower than the March 1996 level. Nuclear generation totaled 50 billion kilowatthours, 9 percent lower than the level 1 year earlier. Hydroelectric generation totaled 33 billion kilowatthours, 3 percent higher than the March 1996 level. Natural gas-fired generation was 18 billion kilowatthours, 19 percent higher than the March 1996 level. Petroleum-fired generation totaled 5 billion kilowatthours, 26 percent below the level 1 year earlier.

During the first quarter of 1997, electric utilities generated 753 billion kilowatthours of electricity, 1 percent below the first quarter of 1996. Comparing generation during the first quarters of 1997 and 1996, petroleum-fired generation decreased 21 percent, nuclear generation decreased 8 percent, hydroelectric power was up 4 percent, while natural gas-fired generation increased 2 percent, and coal-fired generation was up 1 percent.

Sales of electricity to all ultimate consumers in the United States in March 1997 were 241 billion kilowatthours, 3 percent lower than sales during March 1996. Sales to industrial consumers totaled 83 billion kilowatthours in March 1997, less than 1 percent below the level 1 year earlier. Sales to residential consumers during March 1997 were 81 billion kilowatthours, 7 percent below the level of sales during the previous year. Commercial sales were 70 billion kilowatthours, less than 1 percent above the level of commercial sales during the previous year. In March 1997, other sales totaled 8 billion kilowatthours, 6 percent lower than the March 1996 level.

During the first 3 months of 1997, sales of electricity to all ultimate consumers in the United States were 763 million kilowatthours, 1 percent lower than sales during the first 3 months of 1996. Sales to residential consumers were 277 billion kilowatthours, 5 percent below the level of sales during the previous year. Sales to industrial consumers totaled 248 billion kilowatthours, 1 percent higher than the level 1 year earlier. Commercial sales were 215 billion kilowatthours, 1 percent above the level of commercial sales during the previous year. During the first quarter of 1997, other sales totaled 23 billion kilowatthours, 5 percent lower than the level during the first quarter of 1996.

Electric utility consumption of coal during March 1997 was 69 million short tons, less than 1 percent higher than consumption in March 1996. Petroleum consumption (excluding petroleum coke) during March 1997 was 7 million barrels, 31 percent below the level of consumption in March 1996. During March 1997, electric utilities consumed 189 billion cubic feet of natural gas, 21 percent above the March 1996 consumption level.

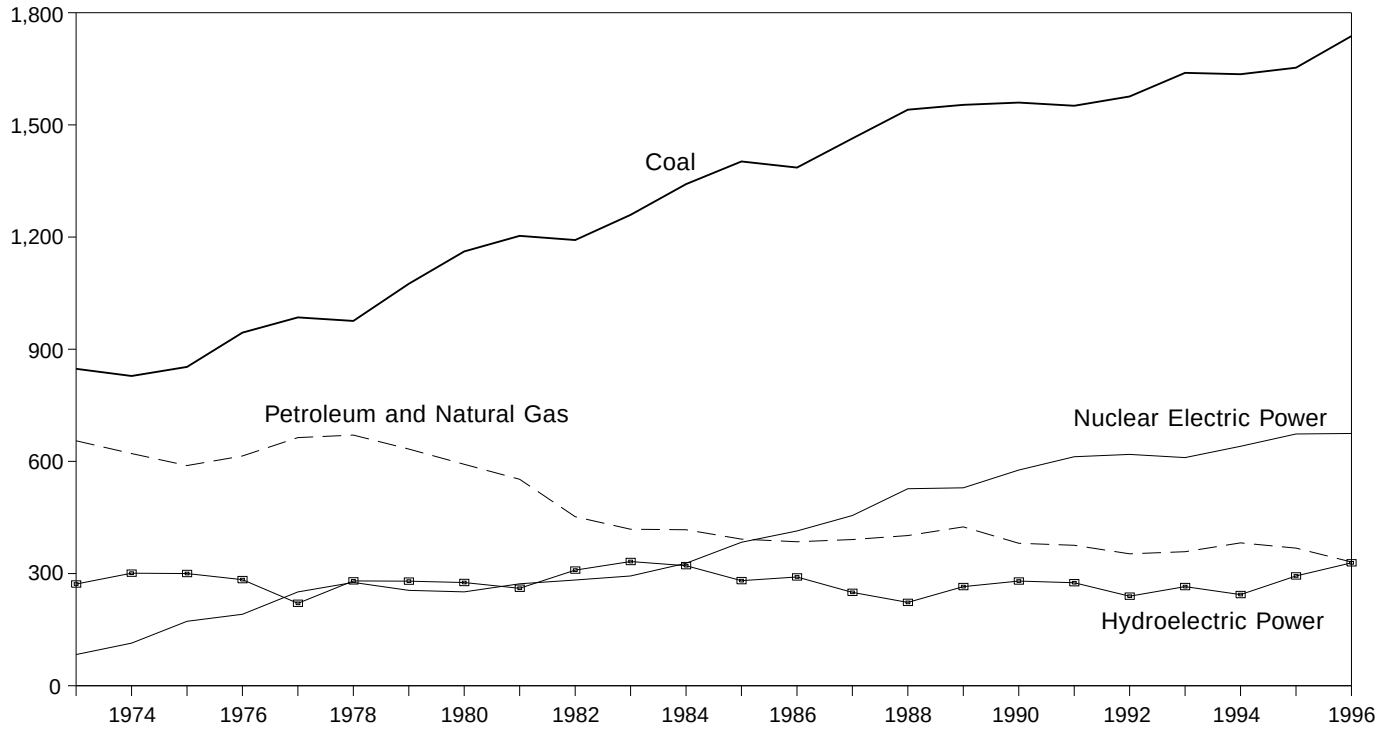
Electric utility consumption of coal during the first quarter of 1997 was 218 million short tons, 2 percent above consumption during the first quarter of 1996. Petroleum consumption (excluding petroleum coke) during the first quarter of 1997 was 29 million barrels, 25 percent below the 1996 level. During the first quarter of 1997, electric utilities consumed 471 billion cubic feet of natural gas, 2 percent above the consumption level during the first quarter of 1996.

On March 31, 1997, electric utility stocks of all types of coal totaled 113 million short tons, 4 percent lower than the level on March 31, 1996. Stocks of petroleum (excluding petroleum coke) on March 31, 1997, totaled 46 million barrels, 9 percent above the level on March 31, 1996.

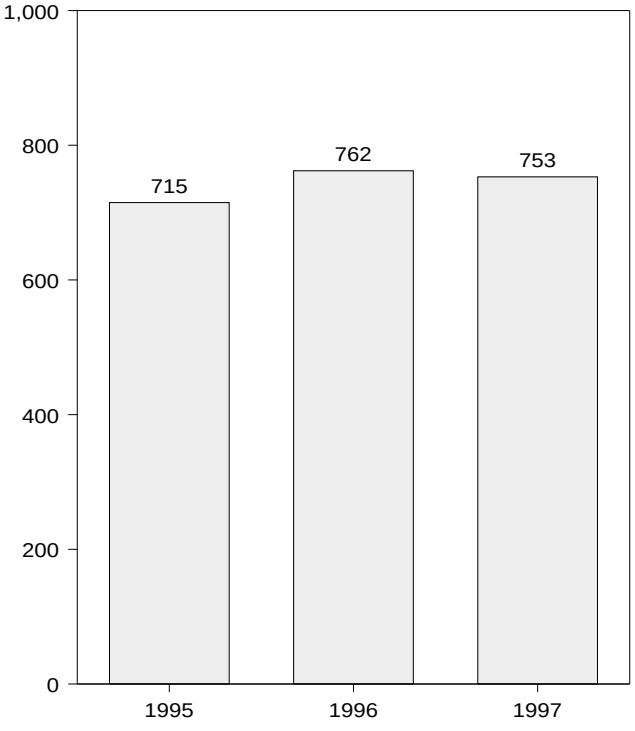
Figure 7.1 Electric Utility Net Generation of Electricity

(Billion Kilowatthours)

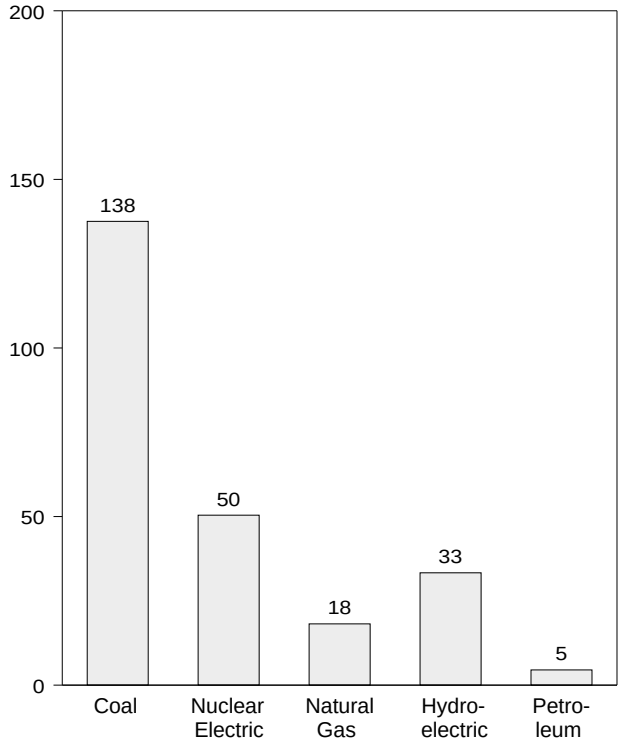
By Source, 1973-1996



Total, January-March



Total by Source, March 1997



Note: Because vertical scales differ, graphs should not be compared.
Source: Table 7.1.

Table 7.1 Electric Utility Net Generation of Electricity

(Million Kilowatthours)

	Coal	Natural Gas[a]	Petroleum[b]	Nuclear Electric Power	Hydro-Electric Power	Geothermal Energy	Other[c]	Total
1973 Total	**847,651**	**340,858**	**314,343**	**83,479**	**272,083**	**1,966**	**328**	**1,860,710**
1974 Total	**828,433**	**320,065**	**300,931**	**113,976**	**301,032**	**2,453**	**251**	**1,867,140**
1975 Total	**852,786**	**299,778**	**289,095**	**172,505**	**300,047**	**3,246**	**191**	**1,917,649**
1976 Total	**944,391**	**294,624**	**319,988**	**191,104**	**283,707**	**3,616**	**266**	**2,037,696**
1977 Total	**985,219**	**305,505**	**358,179**	**250,883**	**220,475**	**3,582**	**481**	**2,124,323**
1978 Total	**975,742**	**305,391**	**365,060**	**276,403**	**280,419**	**2,978**	**338**	**2,206,331**
1979 Total	**1,075,037**	**329,485**	**303,525**	**255,155**	**279,783**	**3,889**	**498**	**2,247,372**
1980 Total	**1,161,562**	**346,240**	**245,994**	**251,116**	**276,021**	**5,073**	**433**	**2,286,439**
1981 Total	**1,203,203**	**345,777**	**206,421**	**272,674**	**260,684**	**5,686**	**368**	**2,294,812**
1982 Total	**1,192,004**	**305,260**	**146,797**	**282,773**	**309,213**	**4,843**	**321**	**2,241,211**
1983 Total	**1,259,424**	**274,098**	**144,499**	**293,677**	**332,130**	**6,075**	**381**	**2,310,285**
1984 Total	**1,341,681**	**297,394**	**119,808**	**327,634**	**321,150**	**7,741**	**898**	**2,416,304**
1985 Total	**1,402,128**	**291,946**	**100,202**	**383,691**	**281,149**	**9,325**	**1,399**	**2,469,841**
1986 Total	**1,385,831**	**248,508**	**136,585**	**414,038**	**290,844**	**10,308**	**1,195**	**2,487,310**
1987 Total	**1,463,781**	**272,621**	**118,493**	**455,270**	**249,695**	**10,775**	**1,491**	**2,572,127**
1988 Total	**1,540,653**	**252,801**	**148,900**	**526,973**	**222,940**	**10,300**	**1,684**	**2,704,250**
1989 Total	**1,553,661**	**266,598**	**158,318**	**529,355**	**265,063**	**9,342**	**1,968**	**2,784,304**
1990 Total	**1,559,606**	**264,089**	**117,017**	**576,862**	**279,926**	**8,581**	**2,070**	**2,808,151**
1991 Total	**1,551,167**	**264,172**	**111,463**	**612,565**	**275,519**	**8,087**	**2,050**	**2,825,023**
1992 Total	**1,575,895**	**263,872**	**88,916**	**618,776**	**239,559**	**8,104**	**2,096**	**2,797,219**
1993 Total	**1,639,151**	**258,915**	**99,539**	**610,291**	**265,063**	**7,571**	**1,994**	**2,882,525**
1994 Total	**1,635,493**	**291,115**	**91,039**	**640,440**	**243,693**	**6,941**	**1,992**	**2,910,712**
1995 January	142,412	19,339	4,159	63,342	23,291	408	126	253,077
February	128,447	16,422	7,042	51,858	23,956	296	106	228,127
March	126,970	23,844	3,080	51,880	27,458	326	117	233,675
April	118,786	22,062	3,315	49,321	23,464	282	151	217,381
May	126,013	24,662	4,390	54,387	26,570	255	104	236,381
June	138,089	28,394	4,422	56,381	28,387	281	129	256,083
July	158,378	38,756	7,252	62,037	25,942	305	157	292,827
August	166,700	44,402	8,257	61,661	22,999	524	165	304,709
September	135,241	30,479	4,850	55,690	18,798	367	149	245,574
October	131,318	23,076	3,500	54,293	21,440	619	163	234,409
November	133,899	19,261	3,521	52,708	24,019	554	155	234,117
December	146,662	16,609	7,056	59,844	27,329	528	143	258,170
Total	**1,652,914**	**307,306**	**60,844**	**673,402**	**293,653**	**4,745**	**1,664**	**2,994,529**
1996 January	152,387	16,059	7,932	62,942	28,891	354	149	268,713
February	137,467	13,330	8,257	55,928	29,909	361	137	245,388
March	138,358	15,218	6,156	55,474	32,284	339	160	247,989
April	125,251	16,614	3,239	50,325	30,485	385	124	226,423
May	134,406	25,427	3,994	55,637	31,707	258	141	251,570
June	146,019	28,732	5,584	57,498	30,254	387	170	268,644
July	158,490	34,129	7,602	60,953	27,411	555	190	289,329
August	161,781	35,233	6,328	61,477	24,891	574	173	290,458
September	142,381	27,254	5,023	54,593	20,757	496	167	250,672
October	142,735	21,813	3,562	50,612	21,217	531	204	240,674
November	145,236	16,527	4,443	52,132	22,010	538	190	241,077
December	152,993	12,418	6,082	57,159	28,857	456	174	258,139
Total	**1,737,504**	**262,754**	**68,200**	**674,729**	**328,673**	**5,234**	**1,980**	**3,079,074**
1997 January	161,276	13,927	8,392	58,914	31,090	414	162	274,177
February	135,218	13,455	4,644	50,658	29,882	310	148	234,315
March	137,554	18,170	4,525	50,414	33,313	438	156	244,569
3-Month Total	**434,048**	**45,553**	**17,561**	**159,986**	**94,285**	**1,162**	**466**	**753,060**
1996 3-Month Total	**428,212**	**44,607**	**22,344**	**174,343**	**91,084**	**1,053**	**446**	**762,089**
1995 3-Month Total	**397,829**	**59,605**	**14,282**	**167,080**	**74,704**	**1,031**	**348**	**714,879**

[a] Includes supplemental gaseous fuel.

[b] Includes fuel oil nos. 1, 2, 4, 5, and 6, crude oil, kerosene, and petroleum coke.

[c] "Other" is electricity produced from biomass fuels, wind, photovoltaic, and solar thermal energy sources connected to electric utility distribution systems.

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

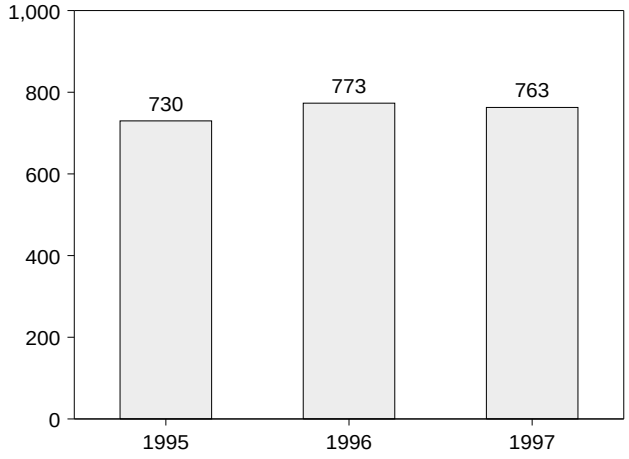
Sources: See end of section.

Please Read: This table reports net generation of electricity by electric utilities and does not include data on nonutility power producers (NUPP). In 1996, NUPP estimated net generation totaled approximately 403,490 million kilowatthours. For more information, see EIA's *Electric Power Annual 1995, Volume II*, the "Nonutility Power Producers" chapter, and *Electric Power Monthly,* Table 2, for monthly NUPP sales to electric utilities for resale.

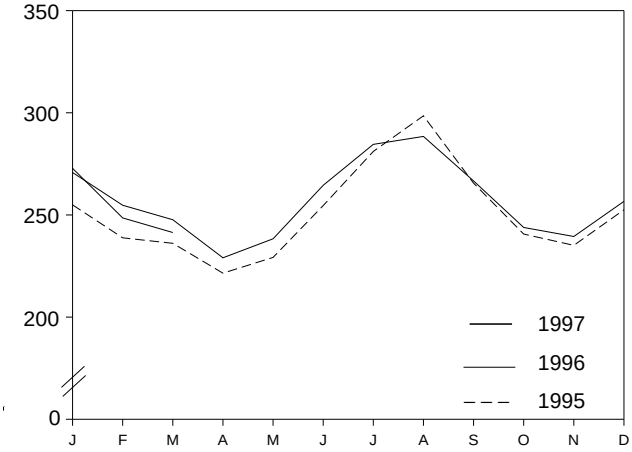
Figure 7.2 Electric Utility Retail Sales of Electricity

(Billion Kilowatthours)

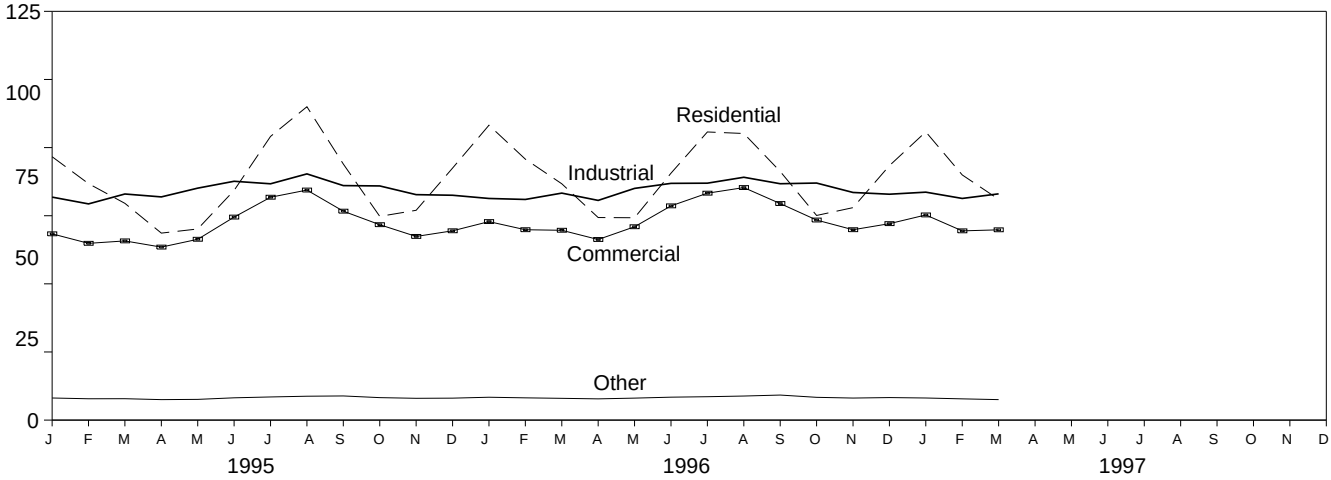
Total, January-March



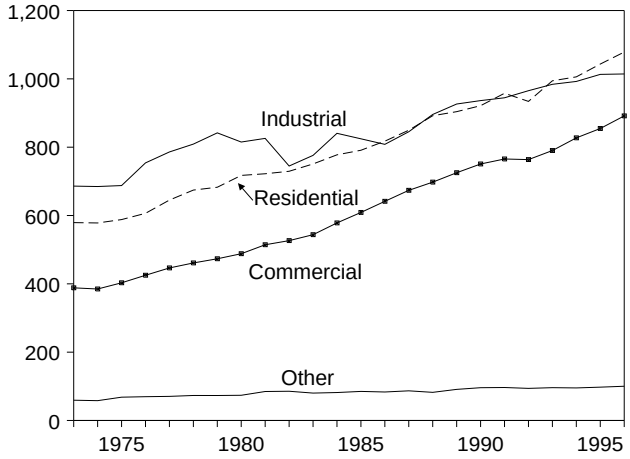
Total, Monthly



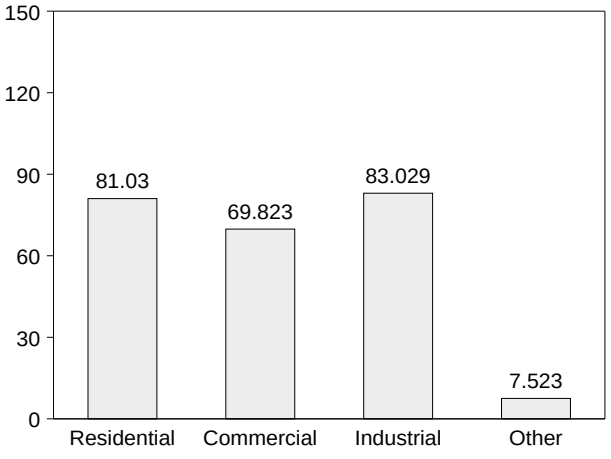
By Sector, Monthly



By Sector, 1973-1996



By Sector, March 1997



Note: Because vertical scales differ, graphs should not be compared.
Source: Table 7.2, Monthly Series.

Table 7.2 Electric Utility Retail Sales of Electricity by End-Use Sector

(Million Kilowatthours)

	Residential		Commercial		Industrial		Other[a]		Total	
	Monthly Series[b]	Annual Series	Monthly Series[b]	Annual Series	Monthly Series[b]	Annual Series	Monthly Series[b]	Annual Series	Monthly Series[b]	Annual Series
1973 Total	**579,231**	**NA**	**388,266**	**NA**	**686,085**	**NA**	**59,326**	**NA**	**1,712,909**	**NA**
1974 Total	**578,184**	**NA**	**384,826**	**NA**	**684,875**	**NA**	**58,039**	**NA**	**1,705,924**	**NA**
1975 Total	**588,140**	**NA**	**403,049**	**NA**	**687,680**	**NA**	**68,222**	**NA**	**1,747,091**	**NA**
1976 Total	**606,452**	**NA**	**425,094**	**NA**	**754,069**	**NA**	**69,631**	**NA**	**1,855,246**	**NA**
1977 Total	**645,239**	**NA**	**446,514**	**NA**	**786,037**	**NA**	**70,571**	**NA**	**1,948,361**	**NA**
1978 Total	**674,466**	**NA**	**461,163**	**NA**	**809,078**	**NA**	**73,215**	**NA**	**2,017,922**	**NA**
1979 Total	**682,819**	**NA**	**473,307**	**NA**	**841,903**	**NA**	**73,070**	**NA**	**2,071,099**	**NA**
1980 Total	**717,495**	**NA**	**488,155**	**NA**	**815,067**	**NA**	**73,732**	**NA**	**2,094,449**	**NA**
1981 Total	**722,265**	**NA**	**514,338**	**NA**	**825,743**	**NA**	**84,756**	**NA**	**2,147,103**	**NA**
1982 Total	**729,520**	**NA**	**526,397**	**NA**	**744,949**	**NA**	**85,575**	**NA**	**2,086,441**	**NA**
1983 Total	**750,948**	**NA**	**543,788**	**NA**	**775,999**	**NA**	**80,219**	**NA**	**2,150,955**	**NA**
1984 Total	**777,654**	**780,092**	**578,281**	**582,621**	**840,588**	**837,836**	**81,849**	**85,248**	**2,278,372**	**2,285,796**
1985 Total	**790,977**	**793,934**	**608,968**	**605,989**	**824,523**	**836,772**	**85,075**	**87,279**	**2,309,543**	**2,323,974**
1986 Total	**817,663**	**819,088**	**641,469**	**630,520**	**808,292**	**830,531**	**83,409**	**88,615**	**2,350,835**	**2,368,753**
1987 Total	**849,613**	**850,410**	**673,707**	**660,433**	**845,266**	**858,233**	**86,854**	**88,196**	**2,455,440**	**2,457,272**
1988 Total	**892,125**	**892,866**	**697,711**	**699,100**	**895,751**	**896,498**	**82,362**	**89,598**	**2,567,949**	**2,578,062**
1989 Total	**903,979**	**905,525**	**725,229**	**725,861**	**926,376**	**925,659**	**91,066**	**89,765**	**2,646,651**	**2,646,809**
1990 Total	**921,473**	**924,019**	**750,835**	**751,027**	**936,428**	**945,522**	**95,936**	**91,988**	**2,704,672**	**2,712,555**
1991 Total	**957,801**	**955,417**	**765,476**	**765,664**	**944,684**	**946,583**	**96,513**	**94,339**	**2,764,474**	**2,762,003**
1992 Total	**934,044**	**935,939**	**763,664**	**761,271**	**965,356**	**972,714**	**94,003**	**93,442**	**2,757,067**	**2,763,365**
1993 Total	**994,380**	**994,781**	**790,225**	**794,573**	**984,111**	**977,164**	**96,065**	**94,944**	**2,864,782**	**2,861,462**
1994 Total	**1,005,804**	**1,008,482**	**827,309**	**820,269**	**992,422**	**1,007,981**	**95,326**	**97,830**	**2,920,860**	**2,934,563**
1995 January	96,647	–	68,346	–	81,819	–	8,114	–	254,926	–
February	86,778	–	64,861	–	79,337	–	7,827	–	238,802	–
March	79,536	–	65,753	–	82,976	–	7,852	–	236,117	–
April	68,627	–	63,474	–	81,899	–	7,515	–	221,515	–
May	70,136	–	66,351	–	85,122	–	7,614	–	229,223	–
June	84,283	–	74,492	–	87,639	–	8,179	–	254,593	–
July	104,101	–	81,772	–	86,711	–	8,499	–	281,083	–
August	114,992	–	84,413	–	90,357	–	8,766	–	298,527	–
September	93,972	–	76,663	–	86,061	–	8,875	–	265,570	–
October	74,762	–	71,705	–	85,936	–	8,252	–	240,655	–
November	76,986	–	67,394	–	82,735	–	8,002	–	235,116	–
December	92,485	–	69,460	–	82,516	–	8,053	–	252,513	–
Total	**1,043,304**	**1,042,501**	**854,682**	**862,685**	**1,013,107**	**1,012,693**	**97,547**	**95,407**	**3,008,641**	**3,013,287**
1996 January	108,219	–	72,839	–	81,327	–	8,397	–	270,783	–
February	95,763	–	69,851	–	80,967	–	8,174	–	254,755	–
March	86,718	–	69,653	–	83,295	–	7,990	–	247,656	–
April	74,339	–	66,270	–	80,629	–	7,798	–	229,037	–
May	74,263	–	70,950	–	85,034	–	8,070	–	238,317	–
June	90,611	–	78,611	–	86,874	–	8,420	–	264,516	–
July	105,734	–	83,271	–	86,945	–	8,596	–	284,546	–
August	105,168	–	85,326	–	89,106	–	8,833	–	288,432	–
September	91,247	–	79,464	–	86,744	–	9,200	–	266,656	–
October	75,100	–	73,418	–	86,985	–	8,363	–	243,867	–
November	77,966	–	69,852	–	83,543	–	8,096	–	239,456	–
December	93,385	–	72,083	–	82,896	–	8,279	–	256,643	–
Total	**1,078,512**	**NA**	**891,588**	**NA**	**1,014,347**	**NA**	**100,217**	**NA**	**3,084,664**	**NA**
1997 January	105,774	–	75,282	–	83,643	–	8,106	–	272,805	–
February	89,970	–	69,439	–	81,339	–	7,803	–	248,552	–
March	81,030	–	69,823	–	83,029	–	7,523	–	241,405	–
3-Month Total	**276,774**	**–**	**214,544**	**–**	**248,012**	**–**	**23,432**	**–**	**762,762**	**–**
1996 3-Month Total	**290,701**	**–**	**212,343**	**–**	**245,589**	**–**	**24,561**	**–**	**773,194**	**–**
1995 3-Month Total	**262,961**	**–**	**198,960**	**–**	**244,131**	**–**	**23,793**	**–**	**729,845**	**–**

[a] "Other" is public street and highway lighting, other sales to public authorities, sales to railroads and railways, and interdepartmental sales.

[b] Annual totals are the sums of the monthly values.

NA=Not available.

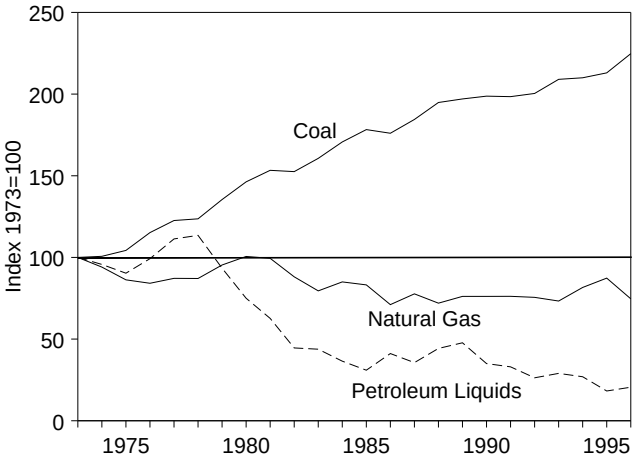
Notes: • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Sources: See end of section.

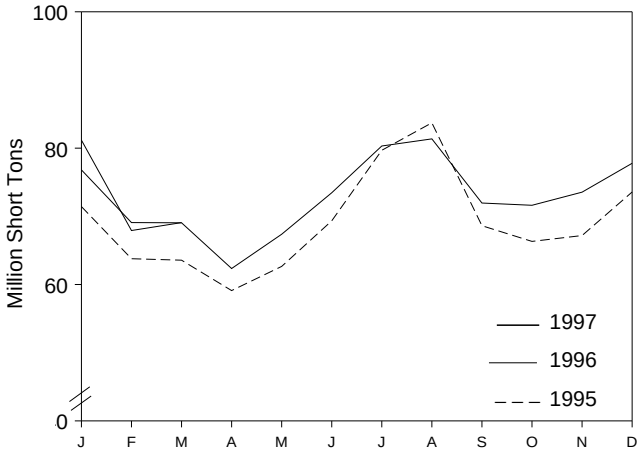
Please Read: This table reports electric utility retail sales of electricity. Retail sales include electricity that the utilities purchased from nonutility power producers (NUPP) for resale to the end-use sectors. It does not include NUPP-produced electricity for their own use (141,480 million kilowatthours in 1996) or delivered directly to end-users (17,919 million kilowatthours in 1996). See EIA's *Electric Power Annual 1995, Volume II*, the "Nonutility Power Producers" chapter for additional information.

Figure 7.3 Electric Utility Consumption and Stocks of Fossil Fuels

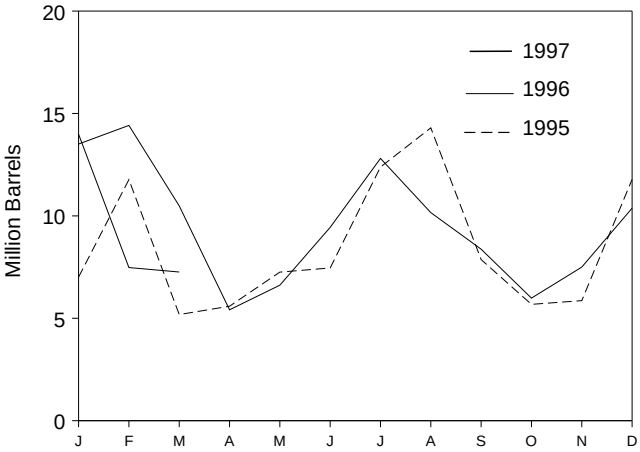
Fuels Consumed, 1973-1996



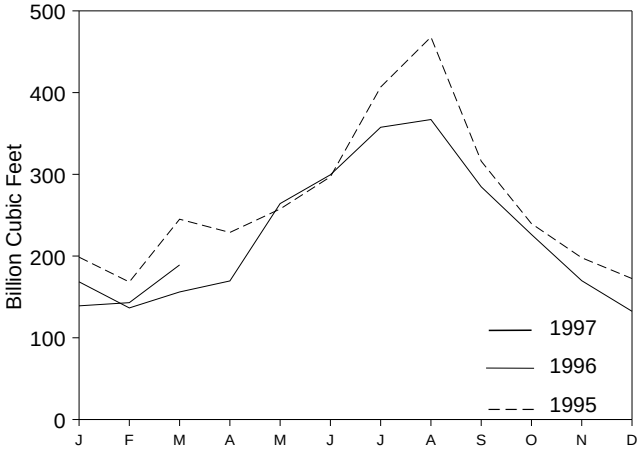
Coal Consumed, Monthly



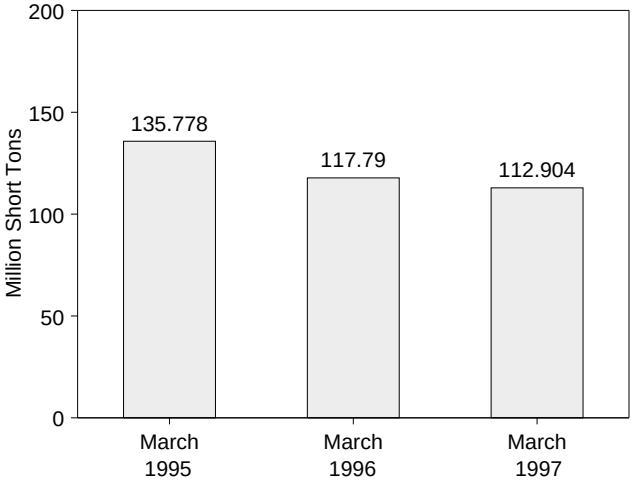
Petroleum Liquids Consumed, Monthly



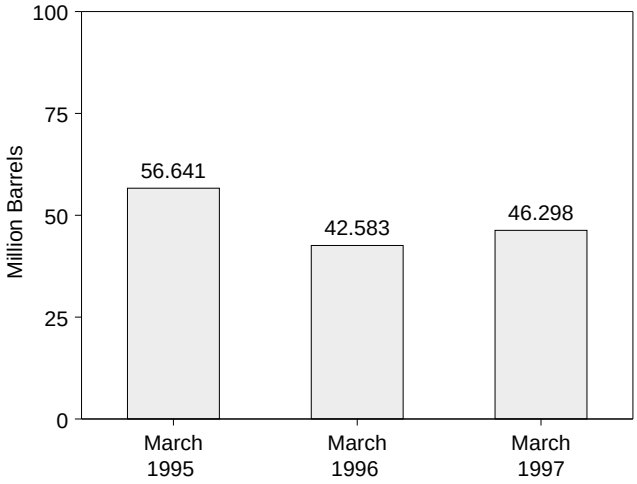
Natural Gas Consumed, Monthly



Coal Stocks, End of Month



Petroleum Liquids Stocks, End of Month



Note: Because vertical scales differ, graphs should not be compared.
Sources: Tables 7.3 and 7.4.

Table 7.3 Electric Utility Consumption of Fossil Fuels To Generate Electricity

	Coal				Petroleum						
					By Type of Petroleum		By Prime Mover Type				
	Anthra-cite	Bituminous Coal	Lignite	Total	Heavy Oil[a]	Light Oil[b]	Steam Plants	GT/IC[c]	Total Liquids	Petroleum Coke	Natural Gas[d]
	Thousand Short Tons				Thousand Barrels					Thousand Short Tons	Million Cubic Feet
1973 Total	**1,443**	**376,975**	**10,794**	**389,212**	**NA**	**NA**	**513,190**	**47,058**	**560,248**	**507**	**3,660,172**
1974 Total	**1,498**	**378,643**	**11,670**	**391,811**	**NA**	**NA**	**483,146**	**53,128**	**536,274**	**625**	**3,443,428**
1975 Total	**1,480**	**388,523**	**15,960**	**405,962**	**NA**	**NA**	**467,221**	**38,907**	**506,128**	**70**	**3,157,669**
1976 Total	**1,350**	**425,205**	**21,817**	**448,371**	**NA**	**NA**	**514,077**	**41,843**	**555,920**	**68**	**3,080,868**
1977 Total	**1,425**	**451,051**	**24,650**	**477,126**	**NA**	**NA**	**574,869**	**48,837**	**623,705**	**98**	**3,191,200**
1978 Total	**1,064**	**448,763**	**31,407**	**481,235**	**NA**	**NA**	**588,319**	**47,520**	**635,839**	**398**	**3,188,363**
1979 Total	**1,046**	**488,129**	**37,876**	**527,051**	**NA**	**NA**	**492,606**	**30,691**	**523,297**	**268**	**3,490,523**
1980 Total	**951**	**526,680**	**41,642**	**569,274**	**391,163**	**29,051**	**401,863**	**18,351**	**420,214**	**179**	**3,681,595**
1981 Total	**1,221**	**550,784**	**44,792**	**596,797**	**329,798**	**21,313**	**339,680**	**11,431**	**351,111**	**139**	**3,640,154**
1982 Total	**1,075**	**543,346**	**49,245**	**593,666**	**234,434**	**15,337**	**243,537**	**6,234**	**249,771**	**149**	**3,225,518**
1983 Total	**1,036**	**570,108**	**54,067**	**625,211**	**228,984**	**16,512**	**237,845**	**7,652**	**245,497**	**261**	**2,910,767**
1984 Total	**1,070**	**606,339**	**56,990**	**664,399**	**189,289**	**15,190**	**197,050**	**7,429**	**204,479**	**252**	**3,111,342**
1985 Total	**1,033**	**631,885**	**60,923**	**693,841**	**158,779**	**14,635**	**166,842**	**6,572**	**173,414**	**231**	**3,044,083**
1986 Total	**829**	**616,134**	**68,093**	**685,056**	**216,156**	**14,326**	**222,500**	**7,983**	**230,482**	**313**	**2,602,370**
1987 Total	**972**	**647,824**	**69,098**	**717,894**	**184,011**	**15,367**	**190,818**	**8,560**	**199,378**	**348**	**2,844,051**
1988 Total	**1,063**	**681,048**	**76,260**	**758,372**	**229,327**	**18,769**	**235,817**	**12,279**	**248,096**	**409**	**2,635,613**
1989 Total	**1,049**	**688,504**	**77,335**	**766,888**	**241,960**	**25,491**	**250,315**	**17,136**	**267,451**	**517**	**2,787,012**
1990 Total	**1,031**	**694,317**	**78,201**	**773,549**	**181,231**	**14,823**	**187,531**	**8,523**	**196,054**	**819**	**2,787,332**
1991 Total	**994**	**691,275**	**79,999**	**772,268**	**171,157**	**13,729**	**177,286**	**7,600**	**184,886**	**722**	**2,789,014**
1992 Total	**986**	**698,626**	**80,248**	**779,860**	**135,779**	**11,556**	**141,163**	**6,172**	**147,335**	**999**	**2,765,608**
1993 Total	**951**	**732,736**	**79,821**	**813,508**	**149,287**	**13,168**	**154,905**	**7,549**	**162,454**	**1,220**	**2,682,440**
1994 Total	**1,123**	**737,102**	**79,045**	**817,270**	**134,666**	**16,338**	**140,907**	**10,097**	**151,004**	**875**	**2,987,146**
1995 January	75	64,253	7,103	71,431	5,955	1,057	6,380	632	7,012	64	198,669
February	82	57,970	5,729	63,782	10,457	1,316	10,883	890	11,773	61	168,274
March	83	57,795	5,692	63,569	4,276	907	4,730	452	5,183	52	245,111
April	77	53,889	5,144	59,110	4,673	918	5,111	480	5,591	36	228,889
May	86	57,067	5,502	62,655	6,121	1,133	6,648	607	7,255	59	257,620
June	72	62,422	6,849	69,342	6,262	1,195	6,828	629	7,457	68	297,007
July	67	72,082	7,539	79,688	10,507	1,879	10,949	1,436	12,385	57	406,758
August	79	76,043	7,599	83,720	11,446	2,853	11,934	2,365	14,299	80	468,021
September	87	61,631	6,906	68,624	6,964	903	7,355	512	7,867	66	316,096
October	86	59,747	6,492	66,326	4,747	932	5,192	487	5,680	74	239,680
November	93	60,843	6,249	67,185	4,812	1,051	5,290	573	5,863	83	197,926
December	93	66,206	7,275	73,574	10,364	1,421	10,830	956	11,785	62	172,457
Total	**978**	**749,951**	**78,078**	**829,007**	**86,584**	**15,565**	**92,131**	**10,019**	**102,150**	**761**	**3,196,507**
1996 January	87	69,439	7,282	76,808	11,410	2,098	NA	NA	13,508	62	168,455
February	79	62,538	6,470	69,086	11,857	2,562	NA	NA	14,419	47	136,572
March	88	62,525	6,439	69,052	8,782	1,707	NA	NA	10,489	39	156,120
April	77	57,241	5,032	62,351	4,344	1,071	NA	NA	5,415	44	169,550
May	87	61,303	5,981	67,371	5,256	1,360	NA	NA	6,616	49	264,216
June	86	66,616	6,759	73,461	8,353	1,087	NA	NA	9,440	48	299,454
July	89	73,025	7,204	80,318	11,444	1,364	NA	NA	12,807	71	357,604
August	97	74,145	7,120	81,362	9,031	1,130	NA	NA	10,161	86	367,059
September	97	65,529	6,325	71,951	6,821	1,553	NA	NA	8,374	71	284,758
October	66	65,249	6,309	71,625	4,509	1,477	NA	NA	5,986	59	226,394
November	63	67,078	6,409	73,549	6,054	1,447	NA	NA	7,501	51	169,879
December	92	70,597	7,091	77,780	8,520	1,856	NA	NA	10,376	55	132,434
Total	**1,009**	**795,284**	**78,421**	**874,714**	**96,381**	**18,712**	**NA**	**NA**	**115,093**	**681**	**2,732,496**
1997 January	97	73,996	7,083	81,175	11,935	2,052	NA	NA	13,987	56	139,104
February	86	61,630	6,204	67,920	6,283	1,195	NA	NA	7,477	55	142,984
March	89	63,266	5,726	69,081	6,065	1,195	NA	NA	7,260	35	189,131
3-Month Total	**271**	**198,891**	**19,013**	**218,175**	**24,283**	**4,441**	**NA**	**NA**	**28,724**	**146**	**471,219**
1996 3-Month Total	**254**	**194,502**	**20,190**	**214,946**	**32,049**	**6,368**	**NA**	**NA**	**38,416**	**148**	**461,147**
1995 3-Month Total	**240**	**180,018**	**18,524**	**198,782**	**20,688**	**3,280**	**21,993**	**1,975**	**23,968**	**177**	**612,053**

[a] Heavy oil includes fuel oil nos. 4, 5, and 6, and residual fuel oils.
[b] Light oil includes fuel oil nos. 1 and 2, kerosene, and jet fuel.
[c] GT/IC = Gas turbine and internal combustion plants.
[d] Includes supplemental gaseous fuels.
NA=Not available.

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

Please Read: This table reports consumption of fossil fuels by electric utilities and does not include nonutility power producers (NUPP). NUPP consumption data are collected by EIA on an annual basis starting in 1989. In 1996, NUPP consumption of fuels was 49,130 thousand short tons of coal; 42,096 thousand barrels of petroleum; 2,491,599 million cubic feet of natural gas; and 1,612,891 million cubic feet of other gases (i.e., butane, ethane, propane, and other gases). See EIA's *Electric Power Annual 1995, Volume II,* the "Nonutility Power Producers" chapter for additional information.

Table 7.4 Electric Utility Stocks of Coal and Petroleum, End of Period

	Coal				Petroleum					
					By Type of Petroleum		By Prime Mover Type			
	Anthracite	Bituminous Coal	Lignite	Total	Heavy Oil[a]	Light Oil[b]	Steam Plants	GT/IC[c]	Total Liquids	Petroleum Coke
	Thousand Short Tons				Thousand Barrels					Thousand Short Tons
1973 Total	**1,066**	**84,941**	**961**	**86,967**	**NA**	**NA**	**79,121**	**10,095**	**89,216**	**312**
1974 Total	**930**	**81,712**	**867**	**83,509**	**NA**	**NA**	**97,718**	**15,199**	**112,917**	**35**
1975 Total	**982**	**107,927**	**1,815**	**110,724**	**NA**	**NA**	**108,825**	**16,432**	**125,257**	**31**
1976 Total	**1,000**	**114,130**	**2,306**	**117,436**	**NA**	**NA**	**106,993**	**14,703**	**121,696**	**32**
1977 Total	**2,321**	**128,210**	**2,688**	**133,219**	**NA**	**NA**	**124,750**	**19,281**	**144,031**	**44**
1978 Total	**2,178**	**123,020**	**3,027**	**128,225**	**NA**	**NA**	**102,402**	**16,386**	**118,788**	**198**
1979 Total	**3,274**	**152,981**	**3,459**	**159,714**	**NA**	**NA**	**111,121**	**20,301**	**131,422**	**183**
1980 Total	**4,741**	**174,154**	**4,115**	**183,010**	**105,351**	**30,023**	**117,227**	**18,147**	**135,374**	**52**
1981 Total	**5,537**	**158,258**	**5,098**	**168,893**	**102,042**	**26,094**	**112,380**	**15,756**	**128,136**	**42**
1982 Total	**6,080**	**170,480**	**4,573**	**181,132**	**95,515**	**23,369**	**105,287**	**13,597**	**118,884**	**41**
1983 Total	**6,507**	**145,250**	**3,841**	**155,598**	**70,573**	**18,801**	**78,285**	**11,090**	**89,375**	**55**
1984 Total	**6,710**	**167,118**	**5,899**	**179,727**	**68,503**	**19,116**	**76,836**	**10,784**	**87,619**	**50**
1985 Total	**7,189**	**142,144**	**7,043**	**156,376**	**57,304**	**16,386**	**64,704**	**8,985**	**73,689**	**49**
1986 Total	**7,099**	**148,665**	**6,042**	**161,806**	**56,841**	**16,269**	**64,258**	**8,853**	**73,111**	**40**
1987 Total	**6,940**	**156,670**	**7,187**	**170,797**	**55,069**	**15,759**	**61,705**	**9,123**	**70,827**	**51**
1988 Total	**6,561**	**133,434**	**6,512**	**146,507**	**54,187**	**15,099**	**60,311**	**8,974**	**69,285**	**86**
1989 Total	**6,403**	**122,967**	**6,490**	**135,860**	**47,446**	**13,824**	**53,309**	**7,962**	**61,270**	**105**
1990 Total	**6,499**	**142,650**	**7,016**	**156,166**	**67,030**	**16,471**	**73,306**	**10,195**	**83,501**	**94**
1991 Total	**6,513**	**145,367**	**5,996**	**157,876**	**58,636**	**16,357**	**65,032**	**9,961**	**74,993**	**70**
1992 Total	**6,215**	**142,156**	**5,759**	**154,130**	**56,135**	**15,714**	**62,374**	**9,475**	**71,849**	**67**
1993 Total	**5,639**	**98,560**	**7,142**	**111,341**	**46,769**	**15,674**	**53,360**	**9,083**	**62,443**	**89**
1994 Total	**4,879**	**115,325**	**6,693**	**126,897**	**46,342**	**16,644**	**52,814**	**10,172**	**62,986**	**69**
1995 January	4,849	114,978	6,309	126,136	45,036	16,298	51,366	9,968	61,334	75
February	4,791	118,668	6,286	129,745	39,922	16,016	46,112	9,826	55,937	95
March	4,748	124,915	6,115	135,778	41,032	15,608	47,073	9,568	56,641	128
April	4,711	131,439	6,215	142,365	38,859	15,447	44,832	9,474	54,306	162
May	4,656	136,845	6,369	147,869	38,280	15,574	44,284	9,570	53,854	173
June	4,634	132,567	6,184	143,385	39,810	15,793	45,749	9,854	55,603	144
July	4,608	119,991	5,712	130,311	37,561	15,589	43,827	9,324	53,151	117
August	4,591	111,183	5,412	121,185	35,135	15,454	41,454	9,135	50,589	98
September	4,551	113,604	5,073	123,227	37,397	15,340	43,538	9,199	52,737	90
October	4,514	117,156	5,145	126,814	37,861	15,569	43,955	9,475	53,429	71
November	4,396	120,042	5,238	129,676	38,916	15,466	44,850	9,532	54,383	42
December	**4,325**	**116,749**	**5,231**	**126,304**	**35,102**	**15,392**	**40,992**	**9,503**	**50,495**	**65**
1996 January	4,243	107,138	5,334	116,715	35,290	14,862	NA	NA	50,153	61
February	4,090	106,053	5,646	115,789	30,718	14,308	NA	NA	45,026	57
March	4,128	108,083	5,579	117,790	29,035	13,548	NA	NA	42,583	53
April	4,080	115,990	5,980	126,050	31,686	13,332	NA	NA	45,019	47
May	4,026	120,877	5,800	130,703	32,430	13,331	NA	NA	45,761	38
June	3,969	117,678	5,487	127,134	32,116	14,054	NA	NA	46,170	64
July	3,911	110,959	5,445	120,315	31,877	14,365	NA	NA	46,243	47
August	3,853	108,643	5,408	117,904	32,716	14,466	NA	NA	47,182	35
September	3,792	110,375	5,305	119,472	31,490	14,194	NA	NA	45,684	27
October	3,765	113,661	5,327	122,753	33,269	14,498	NA	NA	47,767	45
November	3,762	111,365	5,384	120,511	33,108	14,615	NA	NA	47,723	62
December	**3,687**	**105,807**	**5,129**	**114,623**	**32,473**	**15,019**	**NA**	**NA**	**47,492**	**91**
1997 January	3,609	96,538	4,969	105,116	29,727	14,862	NA	NA	44,590	136
February	3,544	98,810	5,391	107,745	31,282	14,876	NA	NA	46,157	159
March	3,479	103,827	5,599	112,904	31,462	14,836	NA	NA	46,298	177

[a] Heavy oil includes fuel oil nos. 4, 5, and 6, and residual fuel oils.
[b] Light oil includes fuel oil nos. 1 and 2, kerosene, and jet fuel.
[c] GT/IC = Gas turbine and internal combustion plants.
NA=Not available.

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

Please Read: This table reports stocks at electric utilities only and does not include stocks held by nonutility power producers, which are not collected by EIA. See EIA's *Electric Power Annual 1995, Volume II,* the "Nonutility Power Producers" chapter for additional information.

Sources for Table 7.1

1973-September 1977—Federal Power Commission Form FPC-4, "Monthly Power Plant Report."
October 1977-1979—Federal Energy Regulatory Commission (FERC), Form FPC-4, "Monthly Power Plant Report."
1980—Energy Information Administration (EIA), *Electric Power Monthly*, March 1991, Table 4, and (for geothermal energy and other) FERC, Form FPC-4, "Monthly Power Plant Report."
1981—EIA, *Electric Power Monthly*, March 1992, Table 4, and (for geothermal energy and other) FERC, Form FPC-4, "Monthly Power Plant Report."
1982—EIA, *Electric Power Monthly*, March 1993, Table 4, and (for geothermal energy and other) EIA, Form EIA-759, "Monthly Power Plant Report."
1983-1992—EIA, *Electric Power Monthly*, March 1994, Table 4, and (for geothermal energy and other) EIA, Form EIA-759, "Monthly Power Plant Report."
1993 and 1994—EIA, *Electric Power Monthly*, May 1995, Tables 4 and 5.
1995 forward—EIA, Form EIA-759, "Monthly Power Plant Report."

Sources for Table 7.2

Monthly Series

1973-September 1977—Federal Power Commission, Form FPC-5, "Monthly Statement of Electric Operating Revenue and Income."
October 1977-1979—Federal Energy Regulatory Commission, Form FERC-5, "Electric Operating Revenue and Income."
1980—Energy Information Administration (EIA), *Electric Power Monthly*, March 1991, Table 51.
1981—EIA, *Electric Power Monthly*, March 1992, Table 51.
1982—EIA, *Electric Power Monthly*, March 1993, Table 51.
1983—EIA, *Electric Power Monthly*, March 1994, Table 51.
1984 forward (and 1993 monthly data)—EIA, *Electric Power Monthly*, March 1995, Table 51.
1985 forward (except 1993 monthly data)—EIA, *Electric Power Monthly*, June 1997, Table 52.

Annual Series

1984—EIA, *Electric Power Monthly*, March 1995, Table 52.
1985-1989—EIA, *Electric Power Monthly*, April 1996, Table 52.
1990-1994—EIA, *Electric Sales and Revenue 1994* November 1995, Table 3.

Sources for Table 7.3

Prime Mover Type Data

1973-September 1977—Federal Power Commission (FPC), Form FPC-4, "Monthly Power Plant Report."
October 1977-1981—Federal Energy Regulatory Commission (FERC), Form FPC-4, "Monthly Power Plant Report."
1982 forward—Energy Information Administration (EIA), Form EIA-759, "Monthly Power Plant Report."

All Other Data

1973-September 1977—FPC, Form FPC-4, "Monthly Power Plant Report."
October 1977-1979—FERC, Form FPC-4, "Monthly Power Plant Report."
1980—EIA, Electric Power Monthly, March 1991, Table 17.
1981—EIA, *Electric Power Monthly*, March 1992, Table 17.
1982—EIA, *Electric Power Monthly*, March 1993, Table 17.
1983—EIA, *Electric Power Monthly*, March 1994, Table 18.
1984—EIA, *Electric Power Monthly*, March 1995, Table 18.
1985-1995—EIA, *Electric Power Monthly*, June 1997, Table 18.
1996—EIA, Form EIA-759, "Monthly Power Plant Report."

Sources for Table 7.4

Prime Mover Type Data

1973-September 1977—Federal Power Commission (FPC), Form FPC-4, "Monthly Power Plant Report."
October 1977-1981—Federal Energy Regulatory Commission (FERC), Form FPC-4, "Monthly Power Plant Report."
1982 forward— Energy Information Administration (EIA), Form EIA-759, "Monthly Power Plant Report."

All Other Data

1973-September 1977—FPC, Form FPC-4, "Monthly Power Plant Report."
October 1977-1979—FERC, Form FPC-4 "Monthly Power Plant Report."
1980—EIA, *Electric Power Monthly*, March 1991, Table 29.
1981—EIA, *Electric Power Monthly*, March 1992, Table 29.
1982—EIA, *Electric Power Monthly*, March 1993, Table 29.
1983 and 1993 monthly data—EIA, *Electric Power Monthly*, March 1994, Table 29.
1984-1995 (except 1993 monthly data)—EIA, *Electric Power Monthly*, June 1997, Table 29.
1996—EIA, Form EIA-759, "Monthly Power Plant Report."

Section 8. Nuclear Energy

In March 1997, U.S. nuclear generating units produced a total of 50 net terawatthours (billion kilowatthours) of electricity, 9 percent lower than in March 1996. Nuclear units generated at an average capacity factor of 67.3 percent, 6.8 percentage points lower than in March 1996. Nuclear power supplied 20.6 percent of the total electric utility-generated electricity in March 1997, compared with 22.4 percent in March 1996.

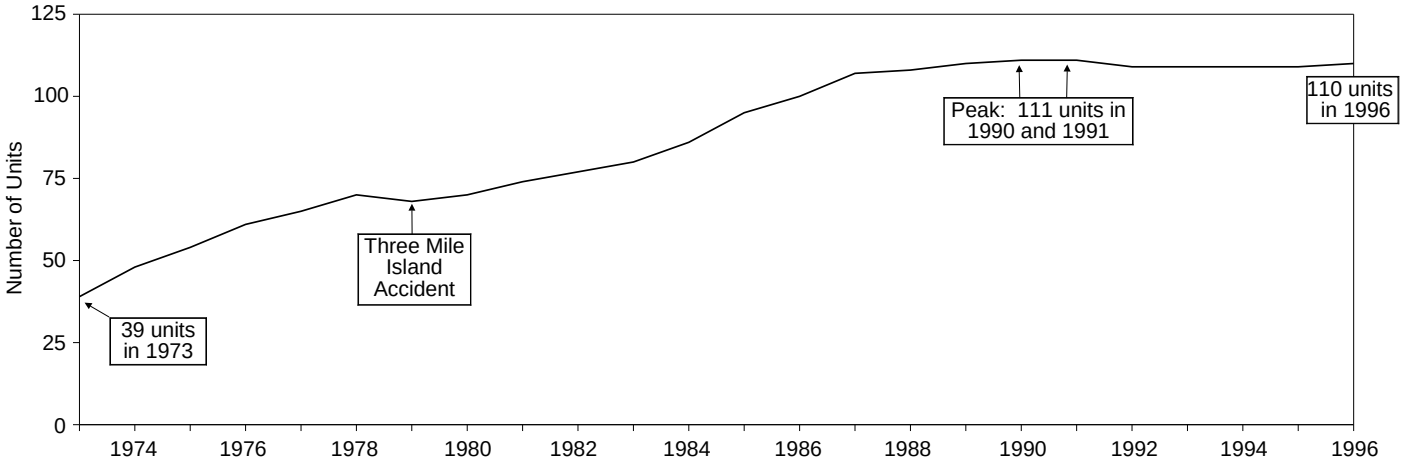
No low-power or full-power licenses for nuclear power plants were issued by the Nuclear Regulatory Commission during March 1997.

On March 31, 1997, there were 110 operable nuclear generating units in the United States, with a collective net summer capability of 100.7 million kilowatts of electricity. Of the 110 operable units, 27 units generated at less than 25 percent of capacity because of maintenance, refueling, or repair outage, and 20 of the 27 units generated no electricity during the month. The aggregate net design capacity of the 110 operable units was 102.3 million kilowatts.

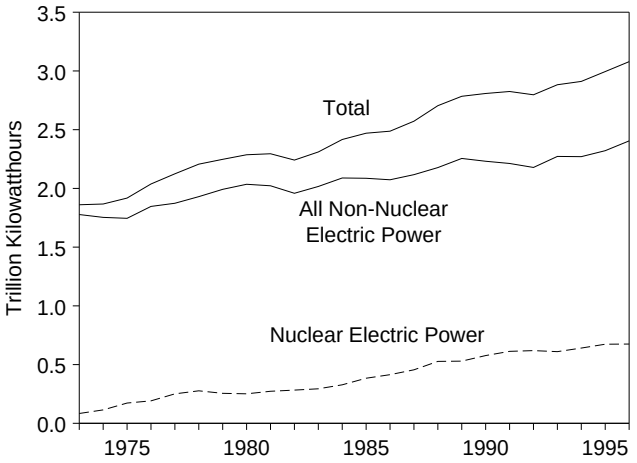
In addition, there were 6 other units with construction permits, although construction for all 6 units was canceled or halted. The design capacity of the 6 units with a construction permit was 7.4 million kilowatts. The net design capacity of these units, when added to that of the 110 operable nuclear generating units, is 109.6 million kilowatts.

Figure 8.1 Nuclear Power Plant Operations

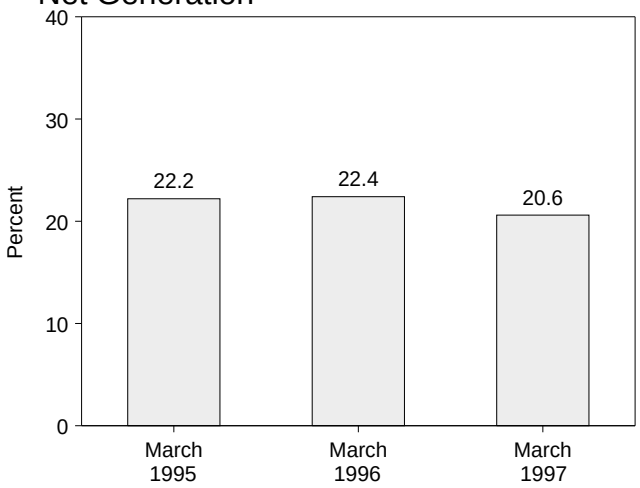
Operable Units, End of Year, 1973-1996



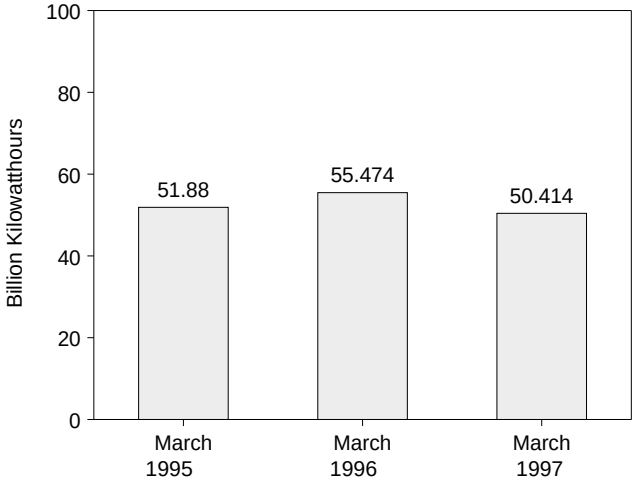
Net Generation of Electricity, 1973-1996



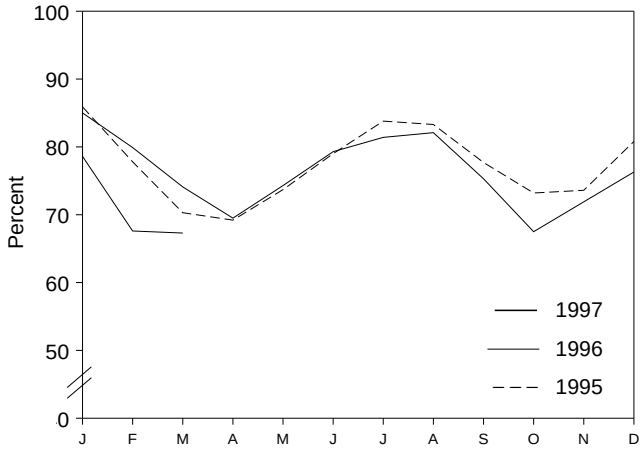
Nuclear Portion of Domestic Electricity Net Generation



Nuclear Electricity Net Generation



Capacity Factor, Monthly



Note: Because vertical scales differ, graphs should not be compared.
Sources: Tables 7.1 and 8.1.

Table 8.1 Nuclear Power Plant Operations

	Operable Units[a,b]	Nuclear Electricity Net Generation	Nuclear Portion of Domestic Electricity Net Generation	Net Summer Capability of Operable Units[a,c]	Capacity Factor[d]
	Number	Million Kilowatthours	Percent	Million Kilowatts	Percent
1973 Year	**39**	**83,479**	**4.5**	**22.683**	**53.5**
1974 Year	**48**	**113,976**	**6.1**	**31.867**	**47.8**
1975 Year	**54**	**172,505**	**9.0**	**37.267**	**55.9**
1976 Year	**61**	**191,104**	**9.4**	**43.822**	**54.7**
1977 Year	**65**	**250,883**	**11.8**	**46.303**	**63.3**
1978 Year	**70**	**276,403**	**12.5**	**50.824**	**64.5**
1979 Year	**68**	**255,155**	**11.4**	**49.747**	**58.4**
1980 Year	**70**	**251,116**	**11.0**	**51.810**	**56.3**
1981 Year	**74**	**272,674**	**11.9**	**56.042**	**58.2**
1982 Year	**77**	**282,773**	**12.6**	**60.035**	**56.6**
1983 Year	**80**	**293,677**	**12.7**	**63.009**	**54.4**
1984 Year	**86**	**327,634**	**13.6**	**69.652**	**56.3**
1985 Year	**95**	**383,691**	**15.5**	**79.397**	**58.0**
1986 Year	**100**	**414,038**	**16.6**	**85.241**	**56.9**
1987 Year	**107**	**455,270**	**17.7**	**93.583**	**57.4**
1988 Year	**108**	**526,973**	**19.5**	**94.695**	**63.5**
1989 Year	**110**	**529,355**	**19.0**	**98.161**	**62.2**
1990 Year	**111**	**576,862**	**20.5**	**99.624**	**66.0**
1991 Year	**111**	**612,565**	**21.7**	**99.589**	**70.2**
1992 Year	**109**	**618,776**	**22.1**	**98.985**	**70.9**
1993 Year	**109**	**610,291**	**21.2**	**99.041**	**70.5**
1994 Year	**109**	**640,440**	**22.0**	**99.148**	**73.8**
1995 January	109	63,342	25.0	99.148	85.9
February	109	51,858	22.7	99.148	77.8
March	109	51,880	22.2	99.148	70.3
April	109	49,321	22.7	99.148	69.2
May	109	54,387	23.0	99.148	73.7
June	109	56,381	22.0	99.148	79.0
July	109	62,037	21.2	99.515	83.8
August	109	61,661	20.2	99.515	83.3
September	109	55,690	22.7	99.515	77.7
October	109	54,293	23.2	99.515	73.2
November	109	52,708	22.5	99.515	73.6
December	109	59,844	23.2	99.515	80.8
Year	**109**	**673,402**	**22.5**	**99.515**	**77.4**
1996 January	109	62,942	23.4	99.515	85.0
February	110	55,928	22.8	100.685	79.9
March	110	55,474	22.4	100.685	74.1
April	110	50,325	22.2	100.685	69.5
May	110	55,637	22.1	100.685	74.3
June	110	57,498	21.4	100.685	79.3
July	110	60,953	21.1	100.685	81.4
August	110	61,477	21.2	100.685	82.1
September	110	54,593	21.8	100.685	75.3
October	110	50,612	21.0	100.685	67.5
November	110	52,132	21.6	100.685	71.9
December	110	57,159	22.1	100.685	76.3
Year	**110**	**674,729**	**21.9**	**100.685**	**76.4**
1997 January	110	58,914	21.5	100.685	78.6
February	110	50,658	21.6	100.685	67.6
March	110	50,414	20.6	100.685	67.3
3-Month Total	**110**	**159,986**	**21.2**	**100.685**	**71.2**
1996 3-Month Total	**110**	**174,343**	**22.9**	**100.685**	**79.6**
1995 3-Month Total	**109**	**167,080**	**23.4**	**99.148**	**78.1**

[a] At end of period.
[b] See Note 1 at end of section.
[c] For the definition of "Net Summer Capability," see Note 3 at end of section .
[d] For an explanation of the method of calculating the capacity factor, see Note 4 at end of section.

Notes: • Nuclear electricity net generation totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Sources: See end of section.

Table 8.2 Nuclear Generating Units, End of Period

	Licensed for Operation		Construction Permits		On Order	Announced	Total	Total Design Capacity[c]
	Operable[a]	In Startup[b]	Granted	Pending				
	Number of Units							Million Kilowatts
1973 Year	**39**	**2**	**57**	**52**	**49**	**9**	**208**	**198**
1974 Year	**48**	**5**	**62**	**75**	**30**	**6**	**226**	**223**
1975 Year	**54**	**2**	**69**	**69**	**14**	**5**	**213**	**212**
1976 Year	**61**	**1**	**71**	**63**	**16**	**2**	**214**	**211**
1977 Year	**65**	**2**	**78**	**49**	**13**	**2**	**209**	**203**
1978 Year	**70**	**0**	**88**	**32**	**5**	**0**	**195**	**191**
1979 Year	**68**	**0**	**90**	**24**	**3**	**0**	**185**	**180**
1980 Year	**70**	**1**	**82**	**12**	**3**	**0**	**168**	**162**
1981 Year	**74**	**0**	**76**	**11**	**2**	**0**	**163**	**157**
1982 Year	**77**	**2**	**60**	**3**	**2**	**0**	**144**	**134**
1983 Year	**80**	**3**	**53**	**0**	**2**	**0**	**138**	**129**
1984 Year	**86**	**6**	**38**	**0**	**2**	**0**	**132**	**123**
1985 Year	**95**	**3**	**30**	**0**	**2**	**0**	**130**	**121**
1986 Year	**100**	**7**	**19**	**0**	**2**	**0**	**128**	**119**
1987 Year	**107**	**4**	**14**	**0**	**2**	**0**	**127**	**119**
1988 Year	**108**	**3**	**12**	**0**	**0**	**0**	**123**	**115**
1989 Year	**110**	**1**	**10**	**0**	**0**	**0**	**121**	**113**
1990 Year	**111**	**0**	**8**	**0**	**0**	**0**	**119**	**111**
1991 Year	**111**	**0**	**8**	**0**	**0**	**0**	**119**	**111**
1992 Year	**109**	**0**	**8**	**0**	**0**	**0**	**117**	**111**
1993 Year	**109**	**0**	**7**	**0**	**0**	**0**	**116**	**110**
1994 Year	**109**	**0**	**7**	**0**	**0**	**0**	**116**	**110**
1995 January	109	0	7	0	0	0	116	110
February	109	0	7	0	0	0	116	110
March	109	0	7	0	0	0	116	110
April	109	0	7	0	0	0	116	110
May	109	0	7	0	0	0	116	110
June	109	0	7	0	0	0	116	110
July	109	0	7	0	0	0	116	110
August	109	0	7	0	0	0	116	110
September	109	0	7	0	0	0	116	110
October	109	0	7	0	0	0	116	110
November	109	1	6	0	0	0	116	110
December	109	1	6	0	0	0	116	110
Year	**109**	**1**	**6**	**0**	**0**	**0**	**116**	**110**
1996 January	109	1	6	0	0	0	116	110
February	110	0	6	0	0	0	116	110
March	110	0	6	0	0	0	116	110
April	110	0	6	0	0	0	116	110
May	110	0	6	0	0	0	116	110
June	110	0	6	0	0	0	116	110
July	110	0	6	0	0	0	116	110
August	110	0	6	0	0	0	116	110
September	110	0	6	0	0	0	116	110
October	110	0	6	0	0	0	116	110
November	110	0	6	0	0	0	116	110
December	110	0	6	0	0	0	116	110
Year	**110**	**0**	**6**	**0**	**0**	**0**	**116**	**110**
1997 January	110	0	6	0	0	0	116	110
February	110	0	6	0	0	0	116	110
March	110	0	6	0	0	0	116	110

[a] See Note 1 at end of section.
[b] See Note 2 at end of section.
[c] Net design electrical rating (DER) is used because many of the units were canceled prior to being assigned a net summer capability. See Note 3 at end of section.

Note: Geographic coverage is the 50 States and the District of Columbia.
Sources: See end of section.

Nuclear Energy Notes

1. Operable Units: Nuclear generating units that have been issued a full-power license by the Nuclear Regulatory Commission (NRC).

Exceptions: The Shippingport (60 megawatts (MW)) and the Hanford-N (840 MW) nuclear units were included in the operable units until 1982 and 1988, respectively. The Shippingport unit was excluded from the operable category during March 1974-November 1977 due to a major core modification outage. Hanford-N, an unlicensed unit used for defense materiel production, was included in the operable category because power was produced as by-product and sold commercially. Three Mile Island 2 (880 MW) experienced a major accident in 1979 and, although that unit still retains its operating license and site cleanup continues, there is no plan to restart it. Therefore, it has not been included in the operable category since March 1979. Although Shoreham received a full-power license in April 1989, the unit is not currently scheduled to operate and, therefore, has not been included in the operable category. Rancho Seco (873 MW) was shut down by the Sacramento Municipal Utility District (SMUD) in June 1989 following a referendum on its continued operation. Because there are currently no plans to operate it as a nuclear unit, it is no longer included as an operable unit but is identified as a unit shut down for an extended period. As soon as SMUD and the NRC formalize the plant's official retirement, it will be noted as such in this report. The Department of Energy-operated Experimental Breeder Reactor 2 unit is not a commercial reactor and is therefore not included in the operable category.

In addition, nine units have been retired and therefore removed from the operable category. Those units are: Peach Bottom 1 (40 MW) and Indian Point 1 (265 MW), both retired in 1974; Humboldt Bay (65 MW), officially retired in 1976; Dresden 1 (200 MW), retired in October 1979; LaCrosse (51 MW), retired in May 1987; Fort Saint Vrain (217 MW), retired in October 1989; Yankee Rowe 1 (185 MW), retired in February 1992; San Onofre 1 (436 MW), retired in December 1992; and Trojan (1,104 MW), retired in February 1993.

2. In Startup: The period of time between a nuclear generating unit's initial fuel loading date and the issuance of its full-power license. During that period, the unit is undergoing low-power testing and the maximum level of operation is 5 percent of the unit's design thermal rating.

3. Capacity: Nuclear generating units may have more than one type of net capacity rating, including the following:

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

(b) Net Design Capacity or Net Design Electrical Rating (DER)—The nominal net electrical output of a 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 summer capability at the end of the month. That fraction is then multiplied by 100 to obtain a percentage. Annual capacity factors are averages of the monthly values for that year.

Sources for Table 8.1

Operable Units

1973-1982: U.S. Department of Energy (DOE), Office of Nuclear Programs, "U.S. Central Station Nuclear Electric Generating Units: Significant Milestones."
1983-January 1996: Nuclear Regulatory Commission (NRC), "Licensed Operating Reactors" (NUREG-0020).
February 1996 forward: EIA estimates.

Nuclear Electricity Net Generation

Table 7.1.

Nuclear Portion of Domestic Electricity Net Generation

Calculated from data in Table 7.1.

Net Summer Capability of Operable Units

1973-1982: Compiled from various sources, primarily DOE, Office of Nuclear Reactor Programs, "U.S. Central Station Nuclear Electric Generating Units: Significant Milestones."
1983 forward: Energy Information Administration (EIA), Form EIA-860, "Annual Electric Generator Report," and monthly updates as appropriate.

Capacity Factor

EIA, Office of Coal, Nuclear, Electric and Alternate Fuels.
Sources for Table 8.2

Licensed for Operation

1973-1982: U.S. Department of Energy (DOE), Of-

fice of Nuclear Programs, "U.S. Central Station Nuclear Electric Generating Units: Significant Milestones."
1983 forward: Nuclear Regulatory Commission (NRC), "Licensed Operating Reactors" (NUREG-0020).

Construction Permits, On Order, and Announced

1973-1982: Compiled from various sources, primarily DOE, Office of Nuclear Reactor Programs, "U.S. Central Station Nuclear Electric Generating Units: Significant Milestones"; Energy Information Administration (EIA), Office of Coal, Nuclear, Electric and Alternate Fuels (CNEAF), "Nuclear Steam-Electric Units That Have Been in Operation as of 1957-1989"; EIA, CNEAF, "Nuclear Plant Cancellations: Causes, Costs, and Consequences"; and Utility Data Institute, Inc., "U.S. Nuclear Plant Statistics, 1987.
1983 forward: NRC, "Summary Information Report" (NUREG-0871); NRC, "Licensed Operating Reactors" (NUREG-0020); and various journals.

Total Design Capacity

1973-1982: Compiled from various sources, primarily DOE, Office of Nuclear Reactor Programs, "U.S. Central Station Nuclear Electric Generating Units: Significant Milestones"; EIA, CNEAF, "Nuclear Steam-Electric Units That Have Been in Operation as of 1957-1987"; EIA, CNEAF, "Monthly Report for Electric Utilities-Power Generation"; EIA, CNEAF, "Nuclear Plant Cancellations: Causes, Costs, and Consequences"; and Utility Data Institute, Inc., "U.S. Nuclear Plant Statistics, 1987."
1983 forward: NRC, "Summary Information Report" (NUREG-0871); NRC, "Licensed Operating Reactors" (NUREG-0020); and EIA, Form EIA-860, "Annual Electric Generator Report."

Section 9. Energy Prices

Crude Oil. The average price of domestic crude oil purchased at the wellhead was $17.88 per barrel in March 1997, 1 percent higher than the level in March 1996. The refiner acquisition cost of imported crude oil in March 1997 was $19.16 per barrel, 3 percent lower than the March 1996 level. The average cost of domestic crude oil in March 1997 was $20.59, 5 percent higher than the March 1996 average.

Motor Gasoline. The national city average retail price of unleaded regular gasoline at all types of stations was $1.23 per gallon in April 1997, 2 percent lower than the price in April 1996. The price of unleaded premium gasoline averaged $1.41 per gallon in April 1997, 1 percent lower than the price in April 1996.

Residual Fuel Oil. The average price, excluding taxes, of residual fuel oil sold to end users in March 1997 was 40 cents per gallon, 11 percent lower than the previous month's price and 10 percent lower than the March 1996 average. The average resale price, excluding taxes, of residual fuel oil in March 1997 was 36 cents per gallon, 8 percent lower than the previous month's average and 14 percent lower than the price 1 year earlier.

Aviation Fuel. The average price, excluding taxes, of aviation gasoline sold to end users in March 1997 was $1.14 per gallon, 1 percent lower than the previous month's price but 8 percent higher than the March 1996 price. The average price, excluding taxes, of kerosene-type jet fuel sold to end users in March 1997 was 62 cents per gallon, 14 percent lower than the previous month's price but 5 percent higher than the March 1996 average price.

No. 2 Distillate Fuel Oil. The March 1997 national average price, excluding taxes, of heating oil sold to residential customers was $1.01 per gallon, 4 percent lower than the previous month's price but 2 percent higher than the price 1 year earlier. The average price of No. 2 fuel oil sold to all end users was 66 cents per gallon in March 1997, 8 percent lower than the February 1997 price and 1 percent lower than the March 1996 price.

Electricity. The average price of electricity sold to all ultimate consumers in the United States in March 1997 was 6.69 cents per kilowatthour, less than 1 percent higher than the March 1996 mean price. The price of electricity sold to residential consumers in March 1997 averaged 8.28 cents per kilowatthour, 2 percent higher than the March 1996 price. The price of electricity sold to commercial consumers averaged 7.49 cents per kilowatthour in March 1997, 1 percent higher than the March 1996 price. The price of electricity sold to other consumers was 6.99 cents per kilowatthour, 5 percent higher than the price 1 year earlier. The price of electricity sold to industrial users in March 1997 averaged 4.43 cents per kilowatthour, 1 percent lower than the March 1996 price.

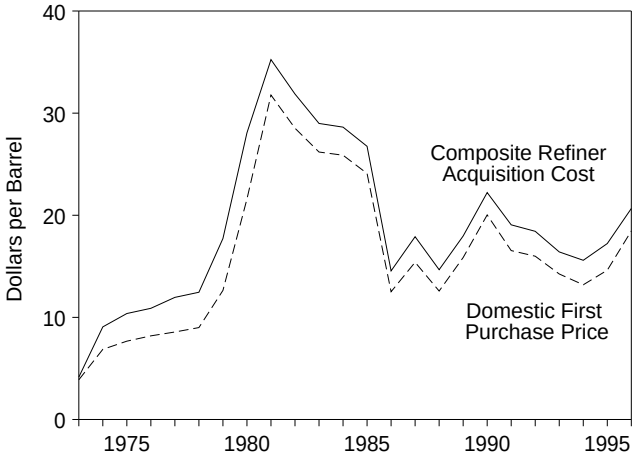
Beginning with January 1986, new series of national average price estimates were based on a statistically derived sample of both publicly and privately owned electric utilities. Previously, average price estimates were derived from selected privately owned electric utilities and were not national averages.

Natural Gas. The estimated average wellhead price of natural gas for February 1997 was $2.73 per thousand cubic feet, 44 percent above the February 1996 price.

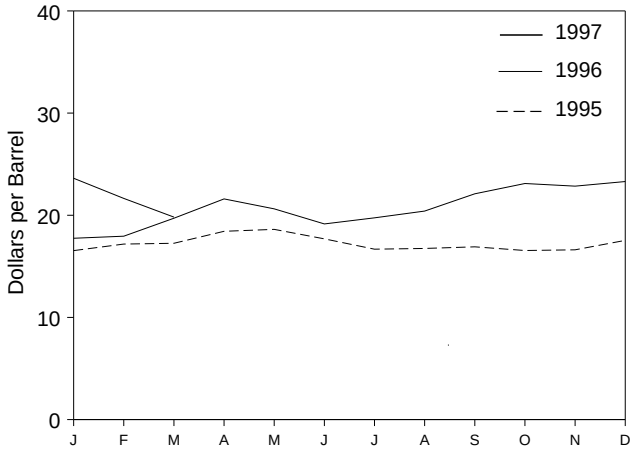
The average price of natural gas delivered to electric utility plants was $4.04 per thousand cubic feet in January 1997 (latest date for which data are available) 40 percent above the January 1996 price. The average price of natural gas used by residential consumers in February 1997 was $6.76 per thousand cubic feet, 17 percent higher than the February 1996 price. The average price of natural gas used by commercial consumers in February 1997 was $5.98 per thousand cubic feet, 14 percent more than the February 1996 price. The average price of natural gas used by industrial consumers in February 1997 was $4.21 per thousand cubic feet, 19 percent above the February 1996 price.

Figure 9.1 Petroleum Prices

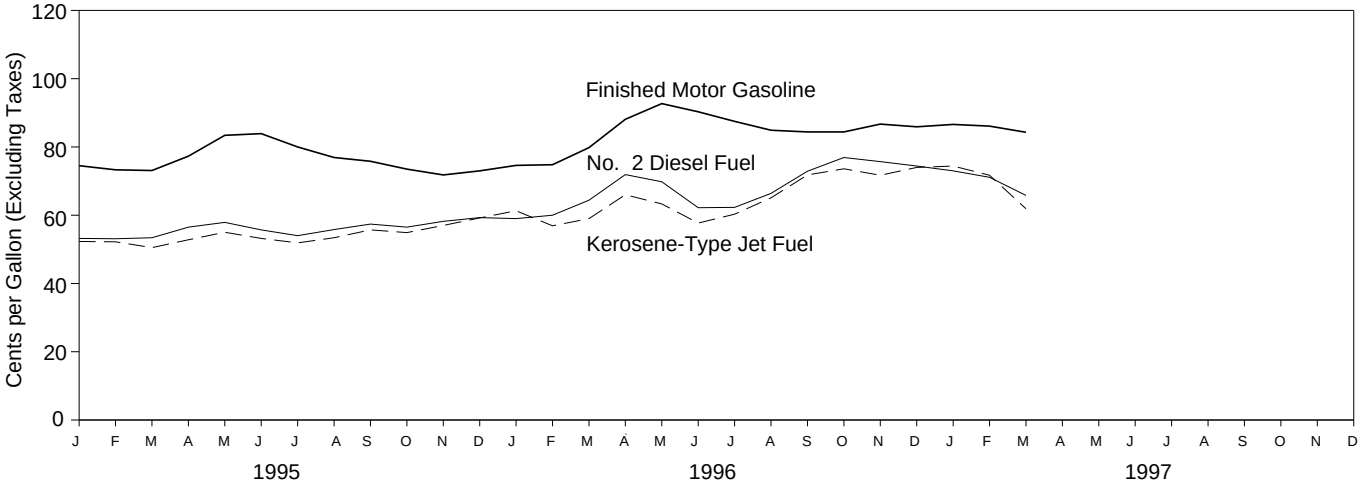
Crude Oil Prices, 1973-1996



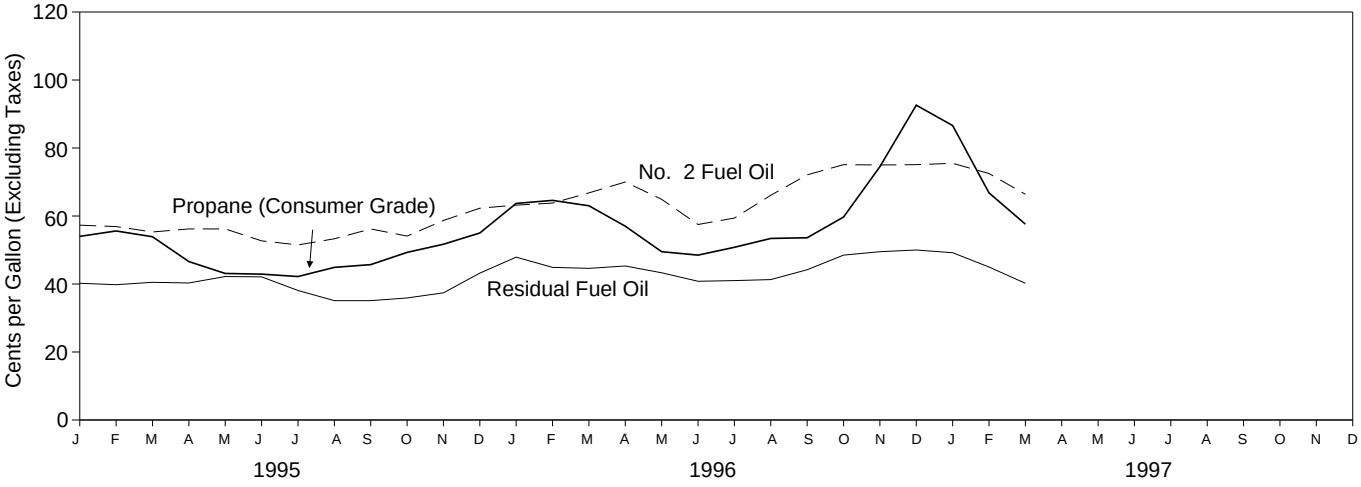
Composite Refiner Acquisition Cost, Monthly



Refiner Prices to End Users: Motor Gasoline, Diesel Fuel, and Jet Fuel, Monthly



Refiner Prices to End Users: No. 2 Fuel Oil, Propane, and Residual Fuel, Monthly



Sources: Tables 9.1, 9.5, and 9.7.

Table 9.1 Crude Oil Price Summary

(Dollars per Barrel)

	Domestic First Purchase Price[b]	F.O.B. Cost of Imports[c]	Landed Cost of Imports[d]	Refiner Acquisition Cost[a]		
				Domestic	Imported	Composite
1973 Average	**3.89**	[e] **5.21**	[e] **6.41**	[E] **4.17**	[E] **4.08**	[E] **4.15**
1974 Average	**6.87**	**10.91**	**12.32**	**7.18**	**12.52**	**9.07**
1975 Average	**7.67**	**11.18**	**12.70**	**8.39**	**13.93**	**10.38**
1976 Average	**8.19**	**12.15**	**13.32**	**8.84**	**13.48**	**10.89**
1977 Average	**8.57**	**13.24**	**14.36**	**9.55**	**14.53**	**11.96**
1978 Average	**9.00**	**13.29**	**14.35**	**10.61**	**14.57**	**12.46**
1979 Average	**12.64**	**20.07**	**21.45**	**14.27**	**21.67**	**17.72**
1980 Average	**21.59**	**32.37**	**33.67**	**24.23**	**33.89**	**28.07**
1981 Average	**31.77**	**35.15**	**36.47**	**34.33**	**37.05**	**35.24**
1982 Average	**28.52**	**32.02**	**33.18**	**31.22**	**33.55**	**31.87**
1983 Average	**26.19**	**27.81**	**28.93**	**28.87**	**29.30**	**28.99**
1984 Average	**25.88**	**27.60**	**28.54**	**28.53**	**28.88**	**28.63**
1985 Average	**24.09**	**25.84**	**26.67**	**26.66**	**26.99**	**26.75**
1986 Average	**12.51**	**12.52**	**13.49**	**14.82**	**14.00**	**14.55**
1987 Average	**15.40**	**16.69**	**17.65**	**17.76**	**18.13**	**17.90**
1988 Average	**12.58**	**13.25**	**14.08**	**14.74**	**14.56**	**14.67**
1989 Average	**15.86**	**16.89**	**17.68**	**17.87**	**18.08**	**17.97**
1990 Average	**20.03**	**20.37**	**21.13**	**22.59**	**21.76**	**22.22**
1991 Average	**16.54**	**16.89**	**18.02**	**19.33**	**18.70**	**19.06**
1992 Average	**15.99**	**16.77**	**17.75**	**18.63**	**18.20**	**18.43**
1993 Average	**14.25**	**14.71**	**15.72**	**16.67**	**16.14**	**16.41**
1994 Average	**13.19**	**14.18**	**15.18**	**15.67**	**15.51**	**15.59**
1995 January	14.00	15.08	16.23	16.52	16.56	16.54
February	14.71	15.65	16.74	17.16	17.21	17.18
March	14.68	15.88	17.04	17.31	17.21	17.26
April	15.84	17.28	18.26	18.20	18.70	18.43
May	15.85	17.30	18.18	18.68	18.56	18.62
June	15.02	15.91	17.07	17.94	17.43	17.69
July	14.01	14.82	15.96	16.85	16.50	16.68
August	14.13	15.05	16.10	16.96	16.54	16.75
September	14.49	15.24	16.38	17.12	16.71	16.91
October	13.68	14.68	15.87	16.82	16.29	16.55
November	14.03	15.30	16.30	16.73	16.52	16.62
December	15.02	16.06	17.05	17.55	17.53	17.54
Average	**14.62**	**15.69**	**16.78**	**17.33**	**17.14**	**17.23**
1996 January	15.42	16.13	17.27	17.97	17.51	17.75
February	15.55	16.85	17.81	18.10	17.78	17.95
March	17.63	18.77	19.62	19.63	19.80	19.71
April	19.58	19.56	20.73	21.88	21.26	21.60
May	17.96	18.34	19.61	21.15	20.14	20.63
June	16.94	17.61	18.83	19.29	19.03	19.15
July	17.63	18.22	19.35	19.89	19.61	19.75
August	18.29	19.31	20.29	20.55	20.28	20.41
September	19.92	21.14	22.01	21.88	22.34	22.10
October	21.09	22.23	23.05	22.92	23.29	23.11
November	20.21	21.33	22.24	23.05	22.65	22.85
December	21.32	21.63	22.51	23.38	23.22	23.30
Average	**18.46**	**19.33**	**20.31**	**20.76**	**20.57**	**20.66**
1997 January	21.76	[R] 21.31	[R] 22.31	24.29	23.05	23.62
February	[R] 19.38	[R] 19.04	[R] 20.15	[R] 22.47	[R] 20.92	[R] 21.65
March	17.88	17.11	18.60	20.59	19.16	19.82

[a] See Note 4 at end of section.
[b] See Note 1 at end of section.
[c] See Note 2 at end of section.
[d] See Note 3 at end of section.
[e] Based on October, November, and December data only.
R=Revised data. E=Estimate.
Notes: • Values for Domestic First Purchase Price and Refiner Acquisition Cost for the current month and for F.O.B. and Landed Costs of Imports for the current 2 months are preliminary. • F.O.B. and landed costs through 1980 reflect the period of reporting; prices since then reflect the period of loading. • Annual averages are the averages of the monthly prices, weighted by volume. • Geographic coverage is the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, and all U.S. Territories and Possessions.
Sources: See end of section.

Table 9.2 F.O.B. Costs of Crude Oil Imports from Selected Countries

(Dollars per Barrel)

	Selected Countries							Persian Gulf Nations[a]	Total OPEC[b]	Total Non-OPEC
	Angola	Colombia	Mexico	Nigeria	Saudi Arabia	United Kingdom	Venezuela			
1973 Average[c]	**W**	**W**	**NA**	**7.81**	**3.25**	**NA**	**5.39**	**3.68**	**5.43**	**4.80**
1974 Average	**11.87**	**W**	**W**	**12.44**	**10.17**	**NA**	**10.71**	**10.60**	**11.33**	**9.59**
1975 Average	**10.97**	**([d])**	**11.44**	**11.82**	**10.87**	**NA**	**11.04**	**10.88**	**11.34**	**10.62**
1976 Average	**12.02**	**([d])**	**12.22**	**13.08**	**11.62**	**W**	**11.39**	**11.65**	**12.23**	**11.70**
1977 Average	**13.29**	**([d])**	**13.42**	**14.44**	**12.38**	**14.11**	**12.63**	**12.56**	**13.29**	**12.97**
1978 Average	**13.32**	**([d])**	**13.24**	**14.05**	**12.70**	**13.82**	**12.38**	**12.77**	**13.31**	**13.23**
1979 Average	**19.85**	**([d])**	**20.27**	**21.69**	**17.28**	**21.70**	**16.90**	**18.77**	**19.88**	**20.92**
1980 Average	**33.45**	**W**	**31.06**	**35.93**	**28.17**	**34.36**	**24.81**	**28.92**	**32.21**	**32.85**
1981 Average	**35.55**	**([d])**	**33.01**	**38.31**	**32.60**	**36.06**	**28.95**	**33.00**	**35.17**	**35.12**
1982 Average	**31.86**	**([d])**	**28.08**	**35.13**	**33.73**	**33.42**	**23.74**	**33.55**	**33.48**	**30.58**
1983 Average	**28.14**	**([d])**	**25.20**	**29.81**	**27.53**	**29.91**	**21.48**	**27.70**	**28.46**	**27.20**
1984 Average	**27.46**	**([d])**	**26.39**	**29.51**	**27.67**	**28.87**	**24.23**	**27.48**	**27.79**	**27.45**
1985 Average	**26.30**	**([d])**	**25.33**	**28.04**	**22.04**	**27.64**	**23.64**	**23.31**	**25.67**	**25.96**
1986 Average	**13.30**	**12.34**	**11.84**	**14.35**	**11.36**	**13.84**	**10.92**	**11.35**	**12.21**	**12.87**
1987 Average	**17.27**	**17.84**	**16.36**	**18.47**	**15.12**	**18.28**	**15.08**	**15.97**	**16.43**	**16.99**
1988 Average	**13.70**	**13.61**	**12.18**	**15.16**	**12.16**	**14.80**	**12.96**	**12.38**	**13.43**	**13.05**
1989 Average	**17.66**	**17.89**	**15.96**	**18.31**	**16.29**	**17.89**	**16.09**	**16.61**	**17.06**	**16.72**
1990 Average	**20.23**	**20.75**	**19.26**	**22.46**	**20.36**	**23.43**	**19.55**	**18.54**	**20.40**	**20.32**
1991 Average	**18.47**	**18.49**	**15.37**	**20.29**	**14.62**	**20.81**	**14.91**	**15.22**	**16.99**	**16.77**
1992 Average	**18.41**	**18.02**	**15.26**	**19.98**	**15.85**	**19.61**	**14.39**	**16.35**	**16.87**	**16.66**
1993 Average	**16.23**	**15.87**	**13.74**	**17.79**	**13.77**	**16.64**	**12.46**	**14.21**	**14.78**	**14.65**
1994 Average	**15.40**	**14.99**	**13.68**	**16.32**	**14.12**	**15.66**	**12.21**	**13.97**	**14.00**	**14.34**
1995 January	15.63	15.87	14.98	17.13	W	W	12.61	W	14.79	15.37
February	16.70	W	15.79	17.43	W	16.84	13.02	15.96	15.14	16.17
March	16.68	16.77	15.74	17.19	W	W	14.23	W	15.47	16.28
April	17.38	18.12	17.16	18.96	W	W	15.97	W	17.20	17.37
May	18.25	18.27	17.20	18.66	W	18.42	15.76	W	16.98	17.69
June	16.92	16.33	16.07	17.66	W	W	13.80	W	15.48	16.37
July	15.63	15.85	14.77	15.97	W	W	13.33	W	14.45	15.15
August	15.37	16.44	14.54	16.48	W	16.23	13.73	W	14.89	15.20
September	16.44	16.79	15.24	16.91	W	16.47	13.30	W	14.79	15.67
October	15.68	16.11	15.02	16.54	W	16.41	12.40	W	14.26	15.15
November	16.39	16.65	15.32	17.28	W	W	13.38	W	15.05	15.50
December	17.24	17.38	16.41	18.37	W	W	14.70	W	15.74	16.37
Average	**16.58**	**16.73**	**15.64**	**17.40**	**W**	**16.94**	**13.86**	**W**	**15.36**	**16.02**
1996 January	16.95	17.73	16.36	18.63	W	W	14.12	W	[R] 15.86	16.37
February	17.91	18.09	16.53	18.53	W	W	15.22	W	[R] 16.91	16.81
March	19.78	20.02	18.39	20.44	18.29	19.42	17.78	18.62	[R] 18.77	18.77
April	20.96	22.65	19.63	21.49	W	W	17.99	W	[R] 18.75	20.20
May	19.72	20.09	17.93	20.13	W	19.02	16.35	W	[R] 17.72	18.83
June	18.60	19.49	17.05	19.25	17.96	W	16.07	17.70	[R] 17.22	17.94
July	19.72	19.72	17.85	19.90	18.59	W	16.75	18.45	[R] 17.80	18.62
August	20.33	20.79	18.94	21.13	20.68	18.82	17.33	20.43	[R] 19.03	19.59
September	22.23	22.79	21.17	22.80	20.91	W	19.69	21.01	[R] 20.67	21.55
October	23.05	23.57	22.40	24.71	W	W	20.29	W	[R] 21.88	22.59
November	22.38	23.25	20.96	24.43	22.25	22.35	19.62	22.39	[R] 21.10	21.48
December	23.22	24.56	21.83	24.39	19.90	W	20.41	19.99	[R] 21.15	22.04
Average	**20.70**	**21.33**	**19.14**	**21.27**	**19.37**	**19.43**	**17.72**	**19.30**	[R] **18.95**	**19.65**
1997 January	23.20	24.14	[R] 21.09	24.52	[R] 17.37	W	19.35	17.37	[R] 20.37	21.93
February	21.35	21.12	[R] 18.57	[R] 21.53	W	W	[R] 16.70	W	[R] 18.07	19.71
March	19.04	19.41	16.98	19.33	W	([d])	15.87	W	16.69	17.49

[a] Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, and United Arab Emirates.

[b] Current members are Algeria, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates, and Venezuela. Ecuador withdrew at the end of 1992 and Gabon withdrew at the end of 1994.

[c] Based on October, November, and December data only.

[d] No data reported.

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

Notes: • The Free on Board (F.O.B.) cost at the country of origin excludes all costs related to insurance and transportation. See Note 2 at end of section. • Values for the current 2 months are preliminary. • Prices through 1980 reflect the period of reporting; prices since then reflect the period of loading. • Annual averages are averages of the monthly prices, including prices not published, weighted by volume.

• Cargoes that are purchased on a "netback" basis, or under similar contractual arrangements whereby the actual purchase price is not established at the time the crude oil is acquired for importation into the United States, are not included in the published data until the actual prices have been determined and reported. • U.S. geographic coverage is the 50 States and the District of Columbia.

Table 9.3 Landed Costs of Crude Oil Imports from Selected Countries

(Dollars per Barrel)

	Selected Countries								Persian Gulf Nations[a]	Total OPEC[b]	Total Non-OPEC
	Angola	Canada	Colombia	Mexico	Nigeria	Saudi Arabia	United Kingdom	Venezuela			
1973 Average[c]	**W**	**5.33**	**W**	**NA**	**9.08**	**5.37**	**NA**	**5.99**	**5.91**	**6.85**	**5.64**
1974 Average	**12.48**	**11.48**	**W**	**W**	**13.16**	**11.63**	**NA**	**11.25**	**12.21**	**12.49**	**11.81**
1975 Average	**11.81**	**12.84**	**(d)**	**12.61**	**12.70**	**12.50**	**NA**	**12.36**	**12.64**	**12.70**	**12.70**
1976 Average	**12.71**	**13.36**	**(d)**	**12.64**	**13.81**	**13.06**	**W**	**11.89**	**13.03**	**13.32**	**13.35**
1977 Average	**14.04**	**14.13**	**(d)**	**13.82**	**15.29**	**13.69**	**14.83**	**13.11**	**13.85**	**14.35**	**14.42**
1978 Average	**14.07**	**14.41**	**(d)**	**13.56**	**14.88**	**13.94**	**14.53**	**12.84**	**14.01**	**14.34**	**14.38**
1979 Average	**21.06**	**20.22**	**(d)**	**20.77**	**22.97**	**18.95**	**22.97**	**17.65**	**20.42**	**21.29**	**22.10**
1980 Average	**34.76**	**30.11**	**W**	**31.77**	**37.15**	**29.80**	**35.68**	**25.92**	**30.59**	**33.56**	**33.99**
1981 Average	**36.84**	**32.32**	**(d)**	**33.70**	**39.66**	**34.20**	**37.29**	**29.91**	**34.61**	**36.60**	**36.14**
1982 Average	**33.08**	**27.15**	**(d)**	**28.63**	**36.16**	**34.99**	**34.25**	**24.93**	**34.94**	**34.81**	**31.47**
1983 Average	**29.31**	**25.63**	**(d)**	**25.78**	**30.85**	**29.27**	**30.87**	**22.94**	**29.37**	**29.84**	**28.08**
1984 Average	**28.49**	**26.56**	**(d)**	**26.85**	**30.36**	**29.20**	**29.45**	**25.19**	**29.07**	**29.06**	**28.14**
1985 Average	**27.39**	**25.71**	**(d)**	**25.63**	**28.96**	**24.72**	**28.36**	**24.43**	**25.50**	**26.86**	**26.53**
1986 Average	**14.09**	**13.43**	**12.85**	**12.17**	**15.29**	**12.84**	**14.63**	**11.52**	**12.92**	**13.46**	**13.52**
1987 Average	**18.20**	**17.04**	**18.43**	**16.69**	**19.32**	**16.81**	**18.78**	**15.76**	**17.47**	**17.64**	**17.66**
1988 Average	**14.48**	**13.50**	**14.47**	**12.58**	**15.88**	**13.37**	**15.82**	**13.66**	**13.51**	**14.18**	**13.96**
1989 Average	**18.36**	**16.81**	**18.10**	**16.35**	**19.19**	**17.34**	**18.74**	**16.78**	**17.37**	**17.78**	**17.54**
1990 Average	**21.51**	**20.48**	**22.34**	**19.64**	**23.33**	**21.82**	**22.65**	**20.31**	**20.55**	**21.23**	**20.98**
1991 Average	**19.90**	**17.16**	**19.55**	**15.89**	**21.39**	**17.22**	**21.37**	**15.92**	**17.34**	**18.08**	**17.93**
1992 Average	**19.36**	**17.04**	**18.46**	**15.60**	**20.78**	**17.48**	**20.63**	**15.13**	**17.58**	**17.81**	**17.67**
1993 Average	**17.40**	**15.27**	**16.54**	**14.11**	**18.73**	**15.40**	**17.92**	**13.39**	**15.26**	**15.68**	**15.78**
1994 Average	**16.36**	**14.83**	**15.80**	**14.09**	**17.21**	**15.11**	**16.64**	**13.12**	**15.00**	**15.08**	**15.29**
1995 January	16.87	16.09	16.67	15.52	17.64	16.66	17.35	13.66	16.67	16.15	16.33
February	17.67	16.74	17.61	16.23	18.24	17.15	17.70	14.01	17.08	16.53	16.99
March	18.03	16.88	17.49	16.34	18.13	17.41	18.00	15.29	17.34	16.86	17.24
April	18.64	18.27	18.91	17.56	19.82	18.45	18.53	16.95	18.42	18.33	18.19
May	19.09	18.44	18.88	17.69	19.45	17.71	19.16	16.68	17.69	17.93	18.50
June	18.33	17.28	17.08	16.58	18.74	16.39	18.71	14.85	16.41	16.64	17.52
July	17.01	16.33	16.52	15.28	17.29	15.85	17.44	14.21	15.82	15.73	16.18
August	16.47	16.35	17.16	15.12	17.39	16.15	17.28	14.68	16.11	16.02	16.17
September	17.27	16.37	17.48	15.74	17.86	16.35	17.44	14.28	16.31	16.22	16.57
October	16.80	15.37	17.13	15.61	17.49	16.03	17.32	13.33	15.95	15.60	16.16
November	17.22	15.37	17.30	15.90	17.98	17.00	17.28	14.20	16.87	16.30	16.25
December	18.09	16.07	17.97	17.08	19.10	16.73	18.74	15.48	16.62	16.91	17.19
Average	**17.66**	**16.65**	**17.45**	**16.19**	**18.25**	**16.84**	**17.91**	**14.81**	**16.78**	**16.61**	**16.95**
1996 January	18.16	16.07	18.55	16.85	19.66	17.84	18.49	15.12	17.73	R 17.36	17.20
February	18.82	16.33	18.82	17.02	19.47	18.74	19.39	16.02	18.78	R 18.05	17.58
March	20.85	18.54	20.57	18.95	21.25	19.59	19.25	18.64	19.87	R 19.82	19.42
April	21.41	21.09	23.37	20.23	22.32	20.55	20.76	19.14	20.48	R 20.26	21.11
May	20.88	20.16	21.04	18.67	21.17	19.55	21.22	17.42	19.44	R 19.17	19.97
June	19.62	19.20	20.08	17.75	20.11	18.92	20.40	17.13	18.79	R 18.65	19.00
July	20.70	19.73	20.62	18.55	20.85	19.79	19.79	17.56	19.61	R 19.16	19.54
August	21.58	20.44	21.47	19.55	21.95	20.63	20.56	18.20	20.42	R 19.96	20.36
September	23.40	21.86	23.47	21.70	23.55	21.83	21.69	20.32	21.80	R 21.66	22.36
October	23.94	22.53	24.42	22.84	25.57	22.91	23.12	20.89	22.77	R 22.78	23.30
November	23.47	21.33	23.81	21.22	25.19	22.70	24.07	20.40	22.67	R 22.17	22.30
December	24.48	21.32	25.20	22.06	25.42	22.08	24.23	21.23	22.16	R 22.29	22.73
Average	**21.86**	**19.93**	**22.02**	**19.62**	**21.95**	**20.49**	**20.86**	**18.57**	**20.44**	R **20.12**	**20.46**
1997 January	24.45	R 21.79	24.98	R 21.60	25.52	R 21.04	R 24.18	R 20.43	21.01	R 21.64	22.89
February	22.54	R 19.75	21.72	R 19.11	R 23.26	R 19.11	R 24.33	R 17.58	19.01	R 19.51	20.59
March	21.08	18.43	20.39	17.47	20.85	18.60	23.59	16.86	18.66	18.38	18.77

[a] Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, and United Arab Emirates.

[b] Current members are Algeria, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates, and Venezuela. Ecuador withdrew at the end of 1992 and Gabon withdrew at the end of 1994.

[c] Based on October, November, and December data only.

[d] No data reported.

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

Notes: • See Note 3 at end of section. • Values for the current 2 months are preliminary. • Prices through 1980 reflect the period of reporting; prices since then reflect the period of loading. • Annual averages are averages of the monthly prices, including prices not published, weighted by volume. • Cargoes that are purchased on a "netback" basis, or under similar contractual arrangements whereby the actual purchase price is not established at the time the crude oil is acquired for importation into the United States, are not included in the published data until the actual prices have been determined and reported. • U.S. geographic coverage is the 50 States and the District of Columbia.

Sources: • **October 1973-September 1977:** Federal Energy Administration, Form FEA-F701-M-0, "Transfer Pricing Report." • **October 1977-December 1977:** Energy Information Administration (EIA), Form FEA-F701-M-0, "Transfer Pricing Report." • **1978 forward:** EIA, *Petroleum Marketing Monthly,* June 1997, Table 25.

Table 9.4 Motor Gasoline Retail Prices, U.S. City Average

(Cents per Gallon, Including Taxes)

	Leaded Regular	Unleaded Regular	Unleaded Premium	All Types[a]
1973 Average	**38.8**	**NA**	**NA**	**NA**
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[b]	**131.1**	**137.8**	[c] **147.0**	**135.3**
1982 Average	**122.2**	**129.6**	**141.5**	**128.1**
1983 Average	**115.7**	**124.1**	**138.3**	**122.5**
1984 Average	**112.9**	**121.2**	**136.6**	**119.8**
1985 Average	**111.5**	**120.2**	**134.0**	**119.6**
1986 Average	**85.7**	**92.7**	**108.5**	**93.1**
1987 Average	**89.7**	**94.8**	**109.3**	**95.7**
1988 Average	**89.9**	**94.6**	**110.7**	**96.3**
1989 Average	**99.8**	**102.1**	**119.7**	**106.0**
1990 Average	**114.9**	**116.4**	**134.9**	**121.7**
1991 Average	**NA**	**114.0**	**132.1**	**119.6**
1992 Average	**NA**	**112.7**	**131.6**	**119.0**
1993 Average	**NA**	**110.8**	**130.2**	**117.3**
1994 Average	**NA**	**111.2**	**130.5**	**117.4**
1995 January	NA	112.9	132.4	119.0
February	NA	112.0	131.6	118.1
March	NA	111.5	130.6	117.3
April	NA	114.0	132.5	119.7
May	NA	120.0	138.3	125.6
June	NA	122.6	141.1	128.1
July	NA	119.5	138.4	125.2
August	NA	116.4	135.2	122.2
September	NA	114.8	133.2	120.6
October	NA	112.7	131.5	118.5
November	NA	110.1	129.2	116.1
December	NA	110.1	129.0	116.0
Average	**NA**	**114.7**	**133.6**	**120.5**
1996 January	NA	112.9	131.7	118.6
February	NA	112.4	131.1	118.1
March	NA	116.2	134.8	121.9
April	NA	125.1	143.1	130.5
May	NA	132.3	150.7	137.8
June	NA	129.9	148.1	135.4
July	NA	127.2	145.3	132.8
August	NA	124.0	142.1	129.8
September	NA	123.4	141.7	129.3
October	NA	122.7	140.8	128.7
November	NA	125.0	142.8	130.8
December	NA	126.0	143.8	131.8
Average	**NA**	**123.1**	**141.3**	**128.8**
1997 January	NA	126.1	144.1	131.8
February	NA	125.5	143.4	131.2
March	NA	123.5	141.5	129.3
April	NA	123.1	141.3	128.8

[a] Also includes types of motor gasoline not shown separately.

[b] In September 1981, the Bureau of Labor Statistics changed the weights used in the calculation of average motor gasoline prices. From September 1981 forward, gasohol is included in the average for all types, and unleaded premium is weighted more heavily.

[c] Based on September through December data only.

NA=Not available.

Notes: • See Note 5 at end of section. • Geographic coverage for 1973-1977 is 56 urban areas. Geographic coverage for 1978 forward is 85 urban areas.

Sources: • **Monthly Data:** U.S. Department of Labor, Bureau of Labor Statistics, *Consumer Prices: Energy.* • **Annual Data: 1973**—*Platt's Oil Price Handbook and Oilmanac,* 1974, 51st Edition. **1974 forward**—calculated by the Energy Information Administration as the simple averages of monthly data.

Table 9.5 Refiner Prices of Residual Fuel Oil

(Cents per Gallon, Excluding Taxes)

	Residual Fuel Oil Sulfur Content Less Than or Equal to 1 Percent		Residual Fuel Oil Sulfur Content Greater Than 1 Percent		Average	
	Sales for Resale	Sales to End Users	Sales for Resale	Sales to End Users	Sales for Resale	Sales to End Users
1978 Average	**29.3**	**31.4**	**24.5**	**27.5**	**26.3**	**29.8**
1979 Average	**45.0**	**46.8**	**36.6**	**38.9**	**39.9**	**43.6**
1980 Average	**60.8**	**67.5**	**47.9**	**52.3**	**52.8**	**60.7**
1981 Average	**74.8**	**82.9**	**62.2**	**67.3**	**66.3**	**75.6**
1982 Average	**69.5**	**74.7**	**57.2**	**61.1**	**61.2**	**67.6**
1983 Average	**64.3**	**69.5**	**59.1**	**61.1**	**60.9**	**65.1**
1984 Average	**68.5**	**72.0**	**63.9**	**65.9**	**65.4**	**68.7**
1985 Average	**61.0**	**64.4**	**56.0**	**58.2**	**57.7**	**61.0**
1986 Average	**32.8**	**37.2**	**28.9**	**31.7**	**30.5**	**34.3**
1987 Average	**41.2**	**44.7**	**36.2**	**39.6**	**38.5**	**42.3**
1988 Average	**33.3**	**37.2**	**27.1**	**30.0**	**30.0**	**33.4**
1989 Average	**40.7**	**43.6**	**33.1**	**34.4**	**36.0**	**38.5**
1990 Average	**47.2**	**50.5**	**37.2**	**40.0**	**41.3**	**44.4**
1991 Average	**36.4**	**40.2**	**29.2**	**30.6**	**31.4**	**34.0**
1992 Average	**35.1**	**38.9**	**28.6**	**31.2**	**30.8**	**33.6**
1993 Average	**33.7**	**39.7**	**25.6**	**30.3**	**29.3**	**33.7**
1994 Average	**34.5**	**40.1**	**28.7**	**33.0**	**31.7**	**35.2**
1995 January	39.1	46.0	33.3	37.9	36.6	40.2
February	37.1	43.7	33.3	38.2	35.4	39.8
March	38.3	43.4	35.2	39.6	37.0	40.5
April	36.8	42.6	36.1	39.6	36.5	40.3
May	40.4	43.6	37.3	41.7	38.8	42.2
June	39.9	45.1	36.9	41.3	38.7	42.1
July	36.8	42.9	32.5	36.4	35.3	38.1
August	35.5	39.1	29.8	33.7	33.1	35.1
September	36.4	39.0	30.4	34.0	33.8	35.1
October	35.3	41.7	32.4	34.5	34.1	35.9
November	36.6	43.4	31.8	35.5	34.4	37.4
December	44.7	49.2	36.0	40.5	40.6	43.2
Average	**38.3**	**43.6**	**33.8**	**37.7**	**36.3**	**39.2**
1996 January	49.9	54.8	38.0	44.7	45.2	47.9
February	42.8	53.2	37.0	41.7	40.3	44.9
March	47.1	51.9	35.9	42.1	42.0	44.6
April	48.3	51.1	39.9	43.4	43.7	45.3
May	45.0	51.1	36.9	41.4	41.0	43.3
June	40.4	47.3	35.0	38.4	37.5	40.8
July	41.4	48.6	37.3	38.7	38.9	41.0
August	42.0	48.6	37.6	38.8	39.3	41.3
September	42.8	50.3	41.0	42.5	41.6	44.2
October	47.9	55.3	43.1	47.0	45.0	48.5
November	49.1	56.9	44.6	47.9	46.3	49.5
December	51.4	59.0	43.1	47.4	46.0	50.0
Average	**45.7**	**52.5**	**39.1**	**43.2**	**42.1**	**45.4**
1997 January	46.2	58.7	39.2	46.3	42.9	49.2
February	R 43.7	54.6	R 35.4	R 41.8	R 39.4	R 45.0
March	39.8	49.2	34.3	37.6	36.2	40.2

R=Revised data.

Notes: • Sales for resale are those made to purchasers other than ultimate consumers. Sales to end users are those made directly to ultimate consumers, including bulk consumers (such as agriculture, industry, and electric utilities) and commercial consumers. • Values for the current month are preliminary. • Prices prior to 1983 are Energy Information Administration (EIA) estimates. See Note 6 at end of section. • Geographic coverage is the 50 States and the District of Columbia.

Source: EIA, *Petroleum Marketing Monthly,* June 1997, Table 19.

Table 9.6 Refiner Prices of Petroleum Products for Resale

(Cents per Gallon, Excluding Taxes)

	Finished Motor Gasoline[a]	Finished Aviation Gasoline	Kerosene-Type Jet Fuel	Kerosene	No. 2 Fuel Oil	No. 2 Diesel Fuel	Propane (Consumer Grade)
1978 Average	**43.4**	**53.7**	**38.6**	**40.4**	**36.9**	**36.5**	**23.7**
1979 Average	**63.7**	**72.1**	**66.0**	**62.4**	**56.9**	**57.4**	**29.1**
1980 Average	**94.1**	**112.8**	**86.8**	**86.4**	**80.3**	**80.1**	**41.5**
1981 Average	**106.4**	**125.0**	**101.2**	**106.6**	**97.6**	**97.2**	**46.6**
1982 Average	**97.3**	**122.8**	**95.3**	**101.8**	**91.4**	**91.4**	**42.7**
1983 Average	**88.2**	**117.8**	**85.4**	**89.2**	**81.5**	**80.8**	**48.4**
1984 Average	**83.2**	**116.5**	**83.0**	**91.6**	**82.1**	**80.3**	**45.0**
1985 Average	**83.5**	**113.0**	**79.4**	**87.4**	**77.6**	**77.2**	**39.8**
1986 Average	**53.1**	**91.2**	**49.5**	**60.6**	**48.6**	**45.2**	**29.0**
1987 Average	**58.9**	**85.9**	**53.8**	**59.2**	**52.7**	**53.4**	**25.2**
1988 Average	**57.7**	**85.0**	**49.5**	**54.9**	**47.3**	**47.3**	**24.0**
1989 Average	**65.4**	**95.0**	**58.3**	**66.9**	**56.5**	**56.7**	**24.7**
1990 Average	**78.6**	**106.3**	**77.3**	**83.9**	**69.7**	**69.4**	**38.6**
1991 Average	**69.9**	**100.1**	**65.0**	**72.2**	**62.2**	**61.5**	**34.9**
1992 Average	**67.7**	**99.1**	**60.5**	**63.2**	**57.9**	**59.1**	**32.8**
1993 Average	**62.6**	**96.5**	**57.7**	**60.4**	**54.4**	**57.0**	**35.1**
1994 Average	**59.9**	**93.3**	**53.4**	**61.8**	**50.6**	**52.9**	**32.4**
1995 January	60.0	92.9	52.2	56.6	49.4	50.1	35.6
February	60.3	93.2	52.0	55.2	49.2	50.6	34.5
March	60.0	93.1	50.1	52.8	48.1	51.2	34.3
April	66.5	96.6	52.6	56.0	50.5	54.7	33.0
May	71.8	102.2	54.7	57.7	52.4	55.9	33.1
June	68.2	101.6	53.1	53.2	49.4	52.6	32.6
July	62.9	100.1	51.3	52.3	48.1	51.4	32.1
August	62.0	98.9	53.1	54.9	51.0	54.2	33.2
September	62.3	98.7	55.2	58.0	52.0	55.7	33.8
October	58.8	96.3	54.1	57.0	50.5	54.6	34.4
November	58.0	94.2	56.3	60.5	53.4	56.3	34.7
December	59.9	95.3	58.6	64.0	57.3	57.6	37.9
Average	**62.6**	**97.5**	**53.9**	**58.0**	**51.1**	**53.8**	**34.4**
1996 January	61.1	95.7	60.3	65.8	56.8	56.2	41.6
February	61.6	96.5	57.2	65.7	58.9	57.9	44.1
March	68.0	100.6	59.6	67.8	62.8	61.9	41.1
April	76.1	107.5	65.3	75.1	67.5	70.1	37.8
May	78.1	110.0	62.2	66.1	61.1	67.0	36.2
June	73.0	107.0	57.5	59.8	53.7	59.1	36.2
July	72.3	105.3	59.6	61.7	57.1	60.0	36.9
August	71.1	107.1	64.5	66.6	62.1	64.9	38.9
September	71.6	106.8	71.6	75.6	68.7	71.7	45.3
October	72.8	107.1	73.6	80.7	72.7	75.4	51.1
November	74.5	108.4	72.2	79.7	71.4	73.2	58.0
December	73.1	107.1	73.0	79.0	71.2	71.0	67.7
Average	**71.3**	**105.5**	**64.6**	**71.3**	**63.9**	**65.9**	**46.1**
1997 January	74.8	109.0	73.5	77.7	69.8	69.9	59.9
February	R 73.1	R 108.7	R 71.4	73.4	R 64.5	R 67.8	R 44.7
March	71.4	107.9	61.9	63.2	57.7	62.4	41.3

[a] See Note 5 at end of section.

R=Revised data.

Notes: • Sales for resale are those made to purchasers other than ultimate consumers. Sales to end users are shown in Table 9.7; they are sales made directly to ultimate consumers, including bulk consumers (such as agriculture, industry, and electric utilities) and residential and commercial consumers. • Values for the current month are preliminary. • Prices prior to 1983 are Energy Information Administration (EIA) estimates. See Note 6 at end of section. • Geographic coverage is the 50 States and the District of Columbia.

Source: EIA, *Petroleum Marketing Monthly,* June 1997, Table 4.

Table 9.7 Refiner Prices of Petroleum Products to End Users

(Cents per Gallon, Excluding Taxes)

	Finished Motor Gasoline[a]	Finished Aviation Gasoline	Kerosene-Type Jet Fuel	Kerosene	No. 2 Fuel Oil	No. 2 Diesel Fuel	Propane (Consumer Grade)
1978 Average	**48.4**	**51.6**	**38.7**	**42.1**	**40.0**	**37.7**	**33.5**
1979 Average	**71.3**	**68.9**	**54.7**	**58.5**	**51.6**	**58.5**	**35.7**
1980 Average	**103.5**	**108.4**	**86.8**	**90.2**	**78.8**	**81.8**	**48.2**
1981 Average	**114.7**	**130.3**	**102.4**	**112.3**	**91.4**	**99.5**	**56.5**
1982 Average	**106.0**	**131.2**	**96.3**	**108.9**	**90.5**	**94.2**	**59.2**
1983 Average	**95.4**	**125.5**	**87.8**	**96.1**	**91.6**	**82.6**	**70.9**
1984 Average	**90.7**	**123.4**	**84.2**	**103.6**	**91.6**	**82.3**	**73.7**
1985 Average	**91.2**	**120.1**	**79.6**	**103.0**	**84.9**	**78.9**	**71.7**
1986 Average	**62.4**	**101.1**	**52.9**	**79.0**	**56.0**	**47.8**	**74.5**
1987 Average	**66.9**	**90.7**	**54.3**	**77.0**	**58.1**	**55.1**	**70.1**
1988 Average	**67.3**	**89.1**	**51.3**	**73.8**	**54.4**	**50.0**	**71.4**
1989 Average	**75.6**	**99.5**	**59.2**	**70.9**	**58.7**	**58.5**	**61.5**
1990 Average	**88.3**	**112.0**	**76.6**	**92.3**	**73.4**	**72.5**	**74.5**
1991 Average	**79.7**	**104.7**	**65.2**	**83.8**	**66.5**	**64.8**	**73.0**
1992 Average	**78.7**	**102.7**	**61.0**	**78.8**	**62.7**	**61.9**	**64.3**
1993 Average	**75.9**	**99.0**	**58.0**	**75.4**	**60.2**	**60.2**	**67.3**
1994 Average	**73.8**	**95.7**	**53.4**	**66.0**	**57.2**	**55.4**	**53.0**
1995 January	74.5	99.6	52.3	67.4	57.3	53.2	54.0
February	73.3	99.8	52.2	62.8	56.9	53.1	55.6
March	73.1	99.0	50.5	59.4	55.3	53.4	53.9
April	77.3	101.3	52.8	56.1	56.2	56.5	46.6
May	83.4	105.8	55.0	51.7	56.2	57.9	43.1
June	83.9	106.4	53.2	54.9	52.7	55.7	42.9
July	80.0	101.8	51.9	51.3	51.5	54.0	42.2
August	76.9	99.2	53.4	53.3	53.3	55.8	44.9
September	75.8	101.3	55.7	57.3	56.2	57.4	45.7
October	73.5	96.8	54.9	56.5	54.1	56.5	49.3
November	71.8	95.4	57.0	62.8	58.7	58.2	51.7
December	73.0	96.0	59.2	70.0	62.3	59.3	55.0
Average	**76.5**	**100.5**	**54.0**	**58.9**	**56.2**	**56.0**	**49.2**
1996 January	74.6	97.6	61.3	71.8	63.2	59.0	63.7
February	74.8	100.6	56.9	73.4	63.8	60.0	64.6
March	79.8	105.0	59.0	68.8	66.8	64.4	63.0
April	88.1	111.2	66.0	80.5	70.0	71.9	57.0
May	92.7	114.4	63.3	61.4	64.9	69.8	49.5
June	90.3	113.5	57.7	55.7	57.5	62.2	48.5
July	87.5	113.7	60.3	64.6	59.4	62.3	50.8
August	84.9	114.4	65.1	69.5	66.1	66.4	53.4
September	84.4	114.3	71.8	76.4	72.1	72.9	53.6
October	84.4	115.0	73.6	87.1	75.1	76.9	59.7
November	86.7	115.1	71.7	88.7	75.0	75.7	74.5
December	85.9	115.3	74.0	90.7	75.1	74.4	92.6
Average	**84.7**	**111.1**	**65.1**	**71.6**	**67.2**	**68.1**	**62.1**
1997 January	86.6	113.7	74.4	88.7	75.5	73.0	86.6
February	R 86.1	114.9	R 71.7	84.8	R 72.5	R 71.1	R 66.8
March	84.3	113.8	61.9	NA	66.4	65.8	57.6

[a] See Note 5 at end of section.

R=Revised data.

Notes: • Sales to end users are those made directly to ultimate consumers, including bulk consumers (such as agriculture, industry, and electric utilities) and residential and commercial consumers. Sales for resale are shown in Table 9.6; they are sales made to purchasers other than ultimate consumers. • Values for the current month are preliminary. • Prices prior to 1983 are Energy Information Administration (EIA) estimates. See Note 6 at end of section. • Geographic coverage is the 50 States and the District of Columbia.

Source: EIA, *Petroleum Marketing Monthly,* June 1997, Table 2.

Table 9.8a No. 2 Distillate Prices to Residences: Northeastern States

(Cents per Gallon, Excluding Taxes)

	Maine	New Hampshire	Vermont	Massachusetts	Rhode Island	Connecticut	New York	New Jersey	Pennsylvania
1978 Average	**48.6**	**50.3**	**50.8**	**48.8**	**50.7**	**50.1**	**50.1**	**49.6**	**48.8**
1979 Average	**68.8**	**72.5**	**72.5**	**70.9**	**72.8**	**72.0**	**71.2**	**71.0**	**69.8**
1980 Average	**96.3**	**100.4**	**101.5**	**97.8**	**101.1**	**98.3**	**98.2**	**97.9**	**96.4**
1981 Average	**120.4**	**123.7**	**125.4**	**121.3**	**123.8**	**121.7**	**123.2**	**121.5**	**118.1**
1982 Average	**115.5**	**117.4**	**120.1**	**117.6**	**120.1**	**118.3**	**120.5**	**117.4**	**113.7**
1983 Average	**102.8**	**104.1**	**112.9**	**109.1**	**110.5**	**109.1**	**112.1**	**107.9**	**105.8**
1984 Average	**103.9**	**108.4**	**111.9**	**111.6**	**111.4**	**112.1**	**115.5**	**111.0**	**107.9**
1985 Average	**99.7**	**102.4**	**107.7**	**107.0**	**106.7**	**108.0**	**111.3**	**105.9**	**102.3**
1986 Average	**74.4**	**75.9**	**86.6**	**82.1**	**82.8**	**89.0**	**91.1**	**90.2**	**81.4**
1987 Average	**74.7**	**76.5**	**81.1**	**80.6**	**82.5**	**83.4**	**85.2**	**84.3**	**76.9**
1988 Average	**77.7**	**78.2**	**82.6**	**82.1**	**83.6**	**85.3**	**86.3**	**84.8**	**77.8**
1989 Average	**89.4**	**89.3**	**90.5**	**92.6**	**93.9**	**92.9**	**95.8**	**91.8**	**85.1**
1990 Average	**98.9**	**102.8**	**107.0**	**108.4**	**108.6**	**109.8**	**112.5**	**108.7**	**102.6**
1991 Average	**96.0**	**91.6**	**101.9**	**103.0**	**99.9**	**106.2**	**111.3**	**104.0**	**99.7**
1992 Average	**87.1**	**85.6**	**92.1**	**92.5**	**91.2**	**94.7**	**102.8**	**93.9**	**89.0**
1993 Average	**82.6**	**82.8**	**90.4**	**89.7**	**89.3**	**91.9**	**100.1**	**92.4**	**86.3**
1994 Average	**81.8**	**79.2**	**87.6**	**87.0**	**88.5**	**89.0**	**96.6**	**89.5**	**85.7**
1995 January	77.8	78.4	85.7	84.8	87.3	86.7	95.2	87.6	83.1
February	77.4	78.5	85.9	84.9	87.3	87.8	96.3	89.0	83.4
March	76.3	77.7	85.6	82.5	87.0	87.0	95.9	89.0	82.3
April	76.7	76.6	84.8	81.9	86.5	85.2	94.1	87.1	80.7
May	78.7	75.8	84.5	84.7	86.1	86.5	95.9	88.2	81.1
June	78.1	74.5	83.9	82.5	83.2	84.2	95.0	87.7	79.5
July	76.9	72.9	81.7	80.6	81.7	79.4	92.3	85.4	75.8
August	76.7	73.0	81.7	80.9	85.3	77.4	89.8	82.2	75.6
September	76.2	73.8	82.5	81.7	84.9	79.2	90.5	83.9	77.2
October	75.8	73.9	82.5	82.3	85.7	83.1	92.7	85.2	79.6
November	79.1	77.3	84.5	83.8	87.4	85.7	94.3	88.1	81.9
December	87.0	83.8	88.0	88.9	91.8	90.5	99.4	94.3	87.1
Average	**78.7**	**77.9**	**85.3**	**84.4**	**87.4**	**86.4**	**95.5**	**88.8**	**82.6**
1996 January	92.4	89.1	92.5	92.0	94.9	94.5	103.3	97.6	92.3
February	93.2	90.8	93.7	93.8	95.6	96.2	104.4	100.2	93.1
March	96.7	93.8	97.3	99.3	99.7	99.6	106.9	103.3	95.9
April	98.7	96.5	100.3	101.4	98.8	102.1	109.4	105.3	97.1
May	95.4	93.7	98.8	95.8	94.9	96.8	105.0	99.9	92.9
June	90.1	87.3	92.2	87.9	88.4	88.8	101.8	89.0	83.9
July	87.5	83.7	88.4	87.6	87.7	84.9	97.7	89.3	79.5
August	89.4	85.2	89.0	89.0	88.3	84.0	93.5	90.4	82.0
September	96.4	92.0	94.4	92.9	96.5	92.5	99.3	97.1	88.9
October	101.0	99.1	100.7	103.0	104.0	103.0	108.2	105.5	99.5
November	103.4	99.7	101.9	103.7	104.5	105.0	112.0	108.5	102.2
December	105.0	101.6	103.6	105.8	106.4	108.1	114.7	110.7	103.9
Average	**97.1**	**94.0**	**96.9**	**97.6**	**98.5**	**98.6**	**106.6**	**102.1**	**95.3**
1997 January	105.2	102.2	104.4	106.4	106.9	108.7	114.7	111.3	104.2
February	102.2	101.0	103.5	103.4	104.5	105.2	112.0	R 108.4	R 102.2
March	94.3	98.6	102.9	95.7	100.3	98.6	111.2	104.6	96.7

R=Revised data.

Notes: • States are grouped in Tables 9.8a, 9.8b, and 9.8c by geographic region of the country. • Values for the current month are preliminary. • Prices prior to 1983 are Energy Information Administration (EIA) estimates. See Note 6 at end of section.

Source: EIA, *Petroleum Marketing Monthly,* June 1997, Table 18.

Table 9.8b No. 2 Distillate Prices to Residences: Selected South Atlantic and Midwestern States

(Cents per Gallon, Excluding Taxes)

	Delaware	District of Columbia	Maryland	Virginia	West Virginia	Ohio	Michigan	Indiana	Illinois	Wisconsin	Minnesota
1978 Average	**47.8**	**50.7**	**49.2**	**49.1**	**46.2**	**47.4**	**47.9**	**48.5**	**46.5**	**44.7**	**47.8**
1979 Average	**68.2**	**74.2**	**70.1**	**70.4**	**65.1**	**68.6**	**70.9**	**72.7**	**68.8**	**67.3**	**72.4**
1980 Average	**95.4**	**102.6**	**97.9**	**98.5**	**92.2**	**91.9**	**97.8**	**99.6**	**95.8**	**91.5**	**99.9**
1981 Average	**117.3**	**127.4**	**121.4**	**120.5**	**115.0**	**113.2**	**118.3**	**118.5**	**114.9**	**109.1**	**118.4**
1982 Average	**111.3**	**124.5**	**117.1**	**117.7**	**109.3**	**110.2**	**113.9**	**114.3**	**110.9**	**107.8**	**115.1**
1983 Average	**106.0**	**117.0**	**110.3**	**108.7**	**101.0**	**101.3**	**106.4**	**100.7**	**100.4**	**101.2**	**103.1**
1984 Average	**109.6**	**118.7**	**113.5**	**110.5**	**102.1**	**102.1**	**105.0**	**103.1**	**100.1**	**101.0**	**104.1**
1985 Average	**104.6**	**114.3**	**108.8**	**106.3**	**98.0**	**99.7**	**102.1**	**99.1**	**97.5**	**98.3**	**101.9**
1986 Average	**85.0**	**93.1**	**91.4**	**86.6**	**74.6**	**77.7**	**81.0**	**74.8**	**NA**	**75.6**	**79.2**
1987 Average	**79.3**	**91.8**	**86.6**	**79.5**	**76.4**	**74.7**	**77.5**	**75.4**	**79.8**	**75.1**	**74.6**
1988 Average	**80.1**	**91.6**	**87.0**	**80.5**	**74.2**	**74.7**	**77.5**	**75.4**	**77.6**	**73.9**	**73.5**
1989 Average	**88.2**	**98.6**	**93.8**	**87.0**	**83.0**	**81.6**	**85.3**	**83.2**	**80.9**	**81.1**	**82.4**
1990 Average	**105.8**	**107.8**	**111.9**	**110.6**	**99.1**	**98.1**	**100.9**	**99.3**	**96.1**	**94.2**	**101.4**
1991 Average	**99.7**	**112.2**	**108.4**	**101.1**	**93.4**	**91.0**	**94.2**	**91.8**	**92.7**	**89.5**	**91.1**
1992 Average	**92.3**	**105.7**	**100.0**	**92.8**	**86.4**	**83.6**	**87.2**	**81.2**	**87.7**	**81.6**	**82.6**
1993 Average	**89.9**	**104.5**	**98.1**	**89.3**	**85.6**	**84.0**	**87.2**	**81.0**	**84.4**	**82.3**	**83.2**
1994 Average	**89.4**	**100.0**	**95.0**	**85.3**	**80.9**	**81.2**	**86.3**	**81.2**	**78.4**	**81.1**	**80.6**
1995 January	88.4	102.4	94.3	85.0	83.1	81.2	86.1	81.6	82.1	81.1	80.1
February	88.5	103.4	95.1	84.6	82.1	81.0	85.5	80.1	80.8	80.4	79.0
March	87.6	103.3	94.2	84.0	81.4	80.1	85.7	82.3	76.7	80.5	80.4
April	87.0	100.0	91.3	84.0	80.3	81.9	86.2	82.3	78.7	81.1	80.4
May	85.2	93.2	89.6	83.0	76.5	80.8	86.1	83.6	81.6	81.5	80.5
June	83.0	NA	86.8	82.3	77.7	78.0	83.6	83.5	77.0	81.3	77.3
July	80.0	85.1	83.3	81.2	75.8	76.6	82.0	81.9	76.6	81.0	76.6
August	82.1	W	82.6	80.9	74.1	72.7	82.1	79.4	72.9	78.5	77.3
September	82.4	86.1	85.5	81.6	76.1	77.5	84.5	80.9	75.6	80.7	79.5
October	84.0	NA	89.5	82.5	77.4	79.1	83.9	81.8	74.6	80.5	80.1
November	84.5	100.2	93.2	83.8	81.4	81.8	86.9	79.2	79.0	81.6	80.5
December	89.5	103.8	98.5	88.2	89.4	84.0	88.8	83.6	82.9	82.9	81.8
Average	**87.0**	**101.0**	**93.6**	**84.4**	**81.5**	**80.8**	**86.0**	**81.6**	**78.5**	**81.2**	**80.1**
1996 January	94.6	111.7	103.9	91.3	90.7	85.7	89.2	85.7	84.4	83.3	82.5
February	94.4	112.8	104.2	92.8	93.7	87.7	90.9	86.5	85.9	83.9	83.6
March	96.0	117.7	106.3	93.6	95.8	91.6	96.9	90.8	88.7	87.1	86.7
April	100.3	115.9	105.8	95.4	97.0	95.3	100.9	93.6	90.4	91.6	91.3
May	96.5	109.7	104.4	91.9	91.4	91.3	99.5	93.1	89.9	92.2	92.0
June	91.1	102.5	97.6	88.2	89.9	86.8	94.4	86.2	80.5	88.4	85.3
July	91.1	97.3	93.7	88.5	88.5	86.5	92.3	85.7	78.9	88.6	84.3
August	91.0	99.2	93.6	89.2	88.9	82.2	91.8	87.5	83.0	87.8	86.1
September	95.3	106.2	99.3	92.6	94.9	92.8	98.1	92.9	87.2	91.1	91.8
October	103.1	120.9	108.3	98.6	101.1	98.2	103.0	96.7	92.4	95.6	97.6
November	105.9	125.7	111.8	102.2	104.6	100.8	106.4	102.6	96.9	98.7	101.4
December	106.7	129.2	114.8	104.3	104.3	101.5	106.4	101.0	98.1	98.9	100.3
Average	**98.3**	**117.8**	**106.3**	**95.2**	**96.0**	**92.0**	**97.7**	**91.3**	**89.3**	**90.0**	**90.7**
1997 January	106.5	130.9	117.0	105.5	103.8	100.7	105.6	100.9	98.8	98.3	99.2
February	104.2	127.0	115.0	[R] 102.6	101.2	[R] 98.4	[R] 104.4	[R] 97.0	93.3	96.8	96.9
March	96.9	122.1	108.1	100.4	98.1	92.1	NA	94.6	91.4	96.8	91.7

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

Notes: • States are grouped in Tables 9.8a, 9.8b, and 9.8c by geographic region of the country. • Values for the current month are preliminary. • Prices prior to 1983 are Energy Information Administration (EIA) estimates. See Note 6 at end of section.

Source: EIA, *Petroleum Marketing Monthly,* June 1997, Table 18.

Table 9.8c No. 2 Distillate Prices to Residences: Selected Western States and U.S. Average

(Cents per Gallon, Excluding Taxes)

	Idaho	Washington	Oregon	Alaska	U.S. Average
1978 Average	**43.6**	**48.6**	**45.8**	**53.2**	**49.0**
1979 Average	**62.1**	**69.7**	**68.0**	**68.2**	**70.4**
1980 Average	**91.6**	**100.8**	**97.3**	**97.8**	**97.4**
1981 Average	**110.4**	**116.5**	**111.4**	**118.0**	**119.4**
1982 Average	**110.4**	**117.6**	**111.6**	**117.4**	**116.0**
1983 Average	**101.8**	**109.0**	**103.6**	**108.8**	**107.8**
1984 Average	**98.5**	**102.6**	**99.3**	**106.9**	**109.1**
1985 Average	**97.2**	**101.1**	**97.1**	**108.3**	**105.3**
1986 Average	**73.8**	**77.5**	**70.4**	**94.9**	**83.6**
1987 Average	**68.8**	**79.5**	**72.5**	**86.5**	**80.3**
1988 Average	**68.8**	**78.5**	**70.9**	**86.9**	**81.3**
1989 Average	**77.8**	**87.4**	**80.2**	**96.4**	**90.0**
1990 Average	**97.4**	**102.9**	**97.0**	**110.1**	**106.3**
1991 Average	**95.1**	**101.6**	**93.3**	**105.0**	**101.9**
1992 Average	**85.7**	**94.0**	**87.6**	**94.1**	**93.4**
1993 Average	**86.2**	**99.9**	**91.8**	**96.1**	**91.1**
1994 Average	**78.9**	**95.0**	**88.7**	**86.5**	**88.4**
1995 January	80.4	95.4	88.4	83.7	86.9
February	80.0	94.5	86.9	84.0	87.4
March	80.6	94.5	88.7	83.7	86.6
April	80.7	96.7	90.7	82.6	85.4
May	82.7	NA	91.6	81.9	86.4
June	82.8	95.2	90.1	82.7	84.6
July	82.6	94.0	NA	81.7	82.0
August	83.5	91.2	86.3	81.9	80.7
September	86.4	95.5	87.1	83.2	82.3
October	88.8	97.8	90.5	83.4	84.0
November	88.6	99.2	92.2	84.6	86.3
December	89.2	100.7	90.5	84.2	91.1
Average	**83.9**	**96.2**	**89.4**	**83.4**	**86.7**
1996 January	87.3	99.7	90.1	84.1	94.6
February	86.9	99.5	90.7	83.3	95.9
March	86.6	101.0	90.1	84.5	99.1
April	95.7	109.6	101.0	90.0	101.5
May	97.3	116.6	108.5	97.9	97.8
June	91.2	112.8	NA	96.2	90.8
July	92.7	103.7	96.3	91.9	87.9
August	98.2	99.8	94.0	91.6	88.0
September	102.0	115.5	109.3	95.4	94.4
October	97.8	116.3	108.5	96.4	102.6
November	97.7	115.3	107.5	96.4	105.4
December	95.3	114.9	105.0	95.3	107.4
Average	**93.3**	**107.9**	**98.8**	**90.7**	**98.9**
1997 January	94.9	117.6	105.8	97.1	107.9
February	94.5	R 118.8	106.7	R 97.5	105.1
March	98.9	116.5	107.5	98.6	101.1

R=Revised data. NA=Not available.

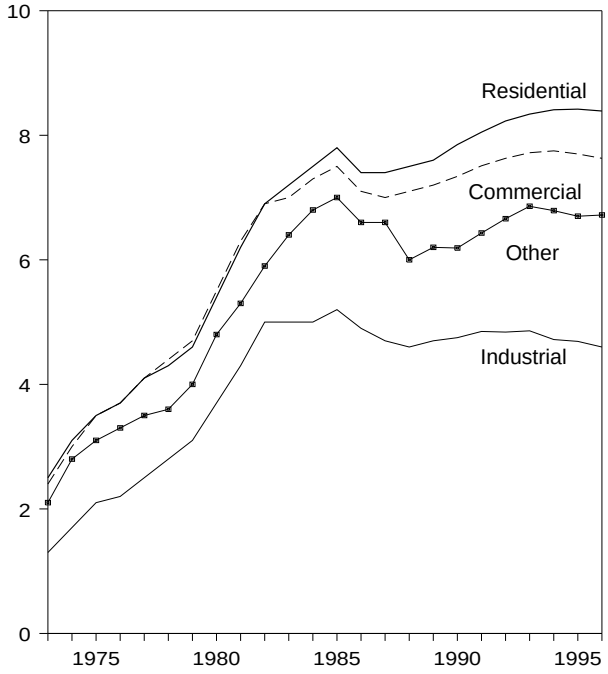
Notes: • States are grouped in Tables 9.8a, 9.8b, and 9.8c by geographic region of the country. • Values for the current month are preliminary. • Prices prior to 1983 are Energy Information Administration (EIA) estimates. See Note 6 at end of section.

Source: EIA, *Petroleum Marketing Monthly,* June 1997, Table 18.

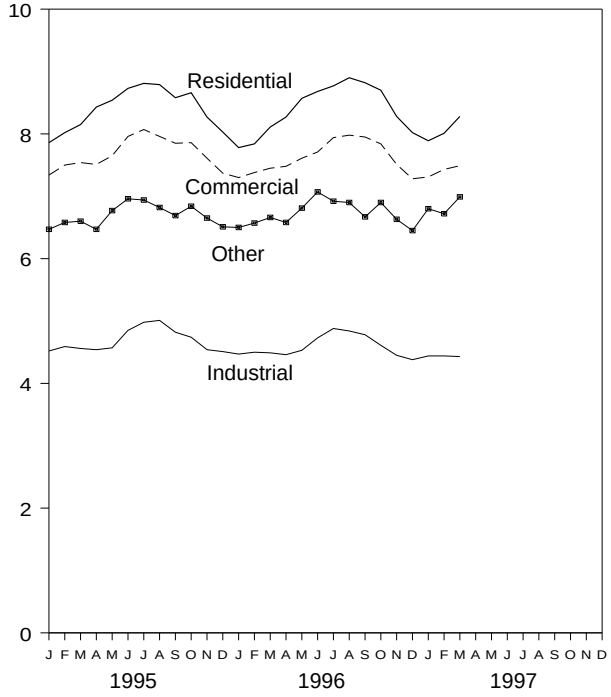
Figure 9.2 Retail Prices of Electricity Sold by Electric Utilities

(Cents per Kilowatthour)

By Sector, 1973-1996



By Sector, Monthly

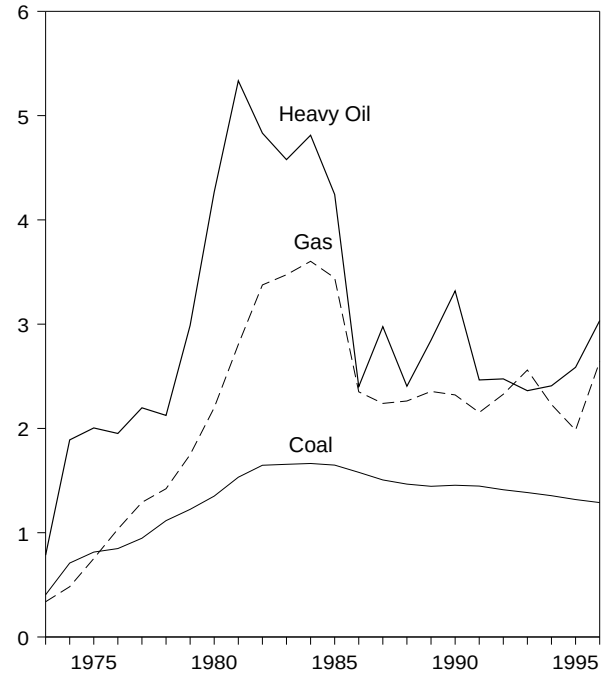


Source: Table 9.9, Monthly Series.

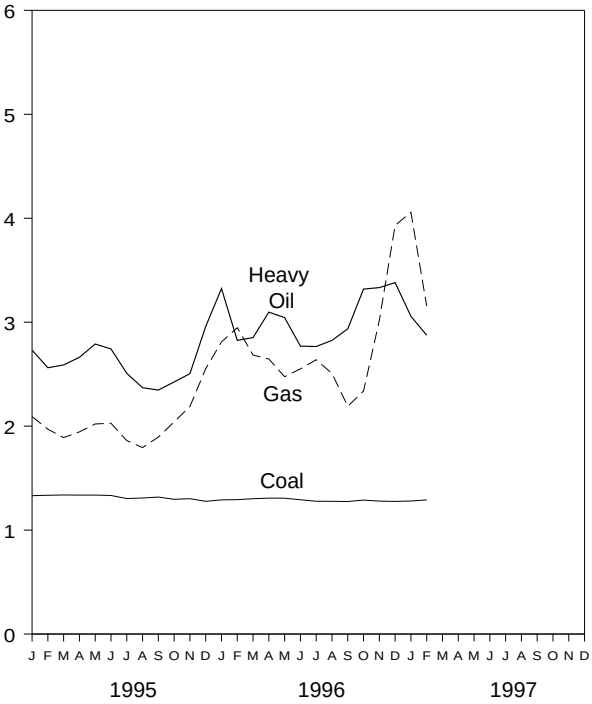
Figure 9.3 Cost of Fossil-Fuel Receipts at Steam-Electric Plants

(Dollars per Million Btu)

Costs, 1973-1996



Costs, Monthly



Source: Table 9.10.

Table 9.9 Retail Prices of Electricity Sold by Electric Utilities

(Cents per Kilowatthour)

	Residential		Commercial		Industrial		Other[a]		Total[b]	
	Monthly Series[c]	Annual Series	Monthly Series[c]	Annual Series	Monthly Series[c]	Annual Series	Monthly Series[c]	Annual Series	Monthly Series[c]	Annual Series
1973 Average	**2.5**	**NA**	**2.4**	**NA**	**1.3**	**NA**	**2.1**	**NA**	**2.0**	**NA**
1974 Average	**3.1**	**NA**	**3.0**	**NA**	**1.7**	**NA**	**2.8**	**NA**	**2.5**	**NA**
1975 Average	**3.5**	**NA**	**3.5**	**NA**	**2.1**	**NA**	**3.1**	**NA**	**2.9**	**NA**
1976 Average	**3.7**	**NA**	**3.7**	**NA**	**2.2**	**NA**	**3.3**	**NA**	**3.1**	**NA**
1977 Average	**4.1**	**NA**	**4.1**	**NA**	**2.5**	**NA**	**3.5**	**NA**	**3.4**	**NA**
1978 Average	**4.3**	**NA**	**4.4**	**NA**	**2.8**	**NA**	**3.6**	**NA**	**3.7**	**NA**
1979 Average	**4.6**	**NA**	**4.7**	**NA**	**3.1**	**NA**	**4.0**	**NA**	**4.0**	**NA**
1980 Average	**5.4**	**NA**	**5.5**	**NA**	**3.7**	**NA**	**4.8**	**NA**	**4.7**	**NA**
1981 Average	**6.2**	**NA**	**6.3**	**NA**	**4.3**	**NA**	**5.3**	**NA**	**5.5**	**NA**
1982 Average	**6.9**	**NA**	**6.9**	**NA**	**5.0**	**NA**	**5.9**	**NA**	**6.1**	**NA**
1983 Average	**7.2**	**NA**	**7.0**	**NA**	**5.0**	**NA**	**6.4**	**NA**	**6.3**	**NA**
1984 Average	**7.5**	**7.15**	**7.3**	**7.13**	**5.0**	**4.83**	**6.8**	**5.90**	**6.5**	**6.25**
1985 Average	**7.8**	**7.39**	**7.5**	**7.27**	**5.2**	**4.97**	**7.0**	**6.09**	**6.7**	**6.44**
1986 Average	**7.4**	**7.42**	**7.1**	**7.20**	**4.9**	**4.93**	**6.6**	**6.11**	**6.4**	**6.44**
1987 Average	**7.4**	**7.45**	**7.0**	**7.08**	**4.7**	**4.77**	**6.6**	**6.21**	**6.3**	**6.37**
1988 Average	**7.5**	**7.48**	**7.1**	**7.04**	**4.6**	**4.70**	**6.0**	**6.20**	**6.3**	**6.35**
1989 Average	**7.6**	**7.65**	**7.2**	**7.20**	**4.7**	**4.72**	**6.2**	**6.25**	**6.4**	**6.45**
1990 Average	**7.85**	**7.83**	**7.34**	**7.34**	**4.75**	**4.74**	**6.19**	**6.40**	**6.57**	**6.57**
1991 Average	**8.05**	**8.04**	**7.51**	**7.53**	**4.85**	**4.83**	**6.43**	**6.51**	**6.75**	**6.75**
1992 Average	**8.23**	**8.21**	**7.63**	**7.66**	**4.84**	**4.83**	**6.66**	**6.74**	**6.83**	**6.82**
1993 Average	**8.34**	**8.32**	**7.72**	**7.74**	**4.86**	**4.85**	**6.86**	**6.88**	**6.92**	**6.93**
1994 Average	**8.41**	**8.38**	**7.75**	**7.73**	**4.72**	**4.77**	**6.79**	**6.84**	**6.92**	**6.91**
1995 January	7.86	–	7.34	–	4.52	–	6.47	–	6.60	–
February	8.02	–	7.50	–	4.59	–	6.58	–	6.69	–
March	8.15	–	7.54	–	4.56	–	6.60	–	6.67	–
April	8.43	–	7.51	–	4.54	–	6.47	–	6.66	–
May	8.54	–	7.65	–	4.57	–	6.77	–	6.75	–
June	8.73	–	7.96	–	4.85	–	6.96	–	7.11	–
July	8.81	–	8.07	–	4.98	–	6.94	–	7.36	–
August	8.79	–	7.96	–	5.01	–	6.82	–	7.35	–
September	8.58	–	7.85	–	4.82	–	6.69	–	7.09	–
October	8.66	–	7.86	–	4.74	–	6.84	–	6.96	–
November	8.27	–	7.61	–	4.54	–	6.65	–	6.71	–
December	8.03	–	7.37	–	4.51	–	6.51	–	6.65	–
Average	**8.42**	**8.40**	**7.70**	**7.69**	**4.69**	**4.66**	**6.70**	**6.88**	**6.90**	**6.89**
1996 January	7.78	–	7.30	–	4.47	–	6.50	–	6.62	–
February	7.84	–	7.38	–	4.50	–	6.57	–	6.61	–
March	8.11	–	7.45	–	4.49	–	6.66	–	6.66	–
April	8.27	–	7.48	–	4.46	–	6.58	–	6.64	–
May	8.57	–	7.61	–	4.53	–	6.81	–	6.78	–
June	8.68	–	7.71	–	4.73	–	7.07	–	7.04	–
July	8.77	–	7.94	–	4.88	–	6.92	–	7.28	–
August	8.90	–	7.98	–	4.84	–	6.90	–	7.31	–
September	8.82	–	7.95	–	4.78	–	6.67	–	7.17	–
October	8.70	–	7.84	–	4.61	–	6.90	–	6.92	–
November	8.28	–	7.51	–	4.45	–	6.63	–	6.66	–
December	8.02	–	7.28	–	4.38	–	6.45	–	6.59	–
Average	**8.39**	**NA**	**7.63**	**NA**	**4.60**	**NA**	**6.72**	**NA**	**6.87**	**NA**
1997 January	7.89	–	7.31	–	4.44	–	6.80	–	6.64	–
February	8.01	–	7.43	–	4.44	–	6.72	–	6.64	–
March	8.28		7.49		4.43		6.99		6.69	
3-Month Average	**8.04**	**–**	**7.41**	**–**	**4.44**	**–**	**6.84**	**–**	**6.65**	**–**
1996 3-Month Average	**7.90**	**–**	**7.38**	**–**	**4.49**	**–**	**6.57**	**–**	**6.63**	**–**
1995 3-Month Average	**8.00**	**–**	**7.46**	**–**	**4.55**	**–**	**6.55**	**–**	**6.65**	**–**

[a] "Other" is public street and highway lighting, other sales to public authorities, sales to railroads and railways, and interdepartmental sales.

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

[c] Annual values are the sum of the monthly revenue divided by the sum of the monthly sales. Data through 1979 cover privately owned electric utilities in Classes A and B. Data for 1980-1985 cover selected privately owned electric utilities in Class A whose electric operating revenue was $100 million or more during the previous year. See Note 7 at end of section.

NA=Not available. – =Not applicable.

Notes: • Prices are calculated by dividing revenue by sales. Revenue may not correspond to sales for a particular month because of electric utility billing and accounting procedures. That lack of correspondence could result in uncharacteristic increases or decreases in the monthly prices. See Note 7 at end of section. • Geographic coverage is the 50 States and the District of Columbia.

Sources: See end of section.

Table 9.10 Quantity and Cost of Fossil-Fuel Receipts at Steam-Electric Utility Plants

	Coal		Petroleum				Gas[a]		All Fossil Fuels[b]
			Heavy Oil[b]		Total[b,c]				
	Quantity (thousand short tons)	Cost (cents per million Btu)	Quantity (thousand barrels)	Cost (cents per million Btu)	Quantity (thousand barrels)	Cost (cents per million Btu)	Quantity (million cubic feet)	Cost (cents per million Btu)	Cost (cents per million Btu)
1973 Year	**374,842**	**40.5**	**512,650**	**78.5**	**535,859**	**80.0**	**3,382,677**	**33.8**	**47.6**
1974 Year	**384,868**	**70.9**	**479,166**	**189.0**	**515,217**	**191.0**	**3,225,203**	**48.2**	**91.4**
1975 Year	**431,527**	**81.4**	**457,582**	**200.5**	**510,352**	**202.3**	**3,034,808**	**75.2**	**104.4**
1976 Year	**454,858**	**84.8**	**495,363**	**195.2**	**549,973**	**199.0**	**2,962,811**	**103.4**	**111.9**
1977 Year	**490,415**	**94.7**	**563,685**	**219.8**	**635,556**	**224.9**	**3,106,403**	**129.1**	**129.7**
1978 Year	**476,169**	**111.6**	**546,197**	**212.5**	**616,040**	**219.1**	**3,140,654**	**142.2**	**141.1**
1979 Year	**556,558**	**122.4**	**479,705**	**298.8**	**515,695**	**307.2**	**3,368,976**	**174.9**	**163.9**
1980 Year	**593,995**	**135.1**	**394,159**	**426.7**	**419,140**	**435.1**	**3,588,814**	**219.9**	**192.8**
1981 Year	**579,374**	**153.2**	**327,477**	**533.4**	**345,544**	**542.5**	**3,573,558**	**280.5**	**225.6**
1982 Year	**601,427**	**164.7**	**228,200**	**483.2**	**239,111**	**492.2**	**3,161,348**	**337.6**	**224.9**
1983 Year	**592,728**	**165.6**	**211,705**	**457.8**	**219,652**	**462.8**	**2,732,248**	**347.4**	**220.6**
1984 Year	**684,111**	**166.4**	**193,832**	**481.2**	**202,372**	**486.3**	**2,878,808**	**360.3**	**219.1**
1985 Year	**666,743**	**164.8**	**156,410**	**424.4**	**164,947**	**431.7**	**2,808,921**	**344.4**	**209.4**
1986 Year	**686,964**	**157.9**	**220,585**	**240.1**	**228,522**	**243.7**	**2,387,622**	**235.1**	**175.0**
1987 Year	**721,298**	**150.6**	**187,300**	**297.6**	**194,578**	**301.1**	**2,605,191**	**224.0**	**170.6**
1988 Year	**727,775**	**146.6**	**230,234**	**240.5**	**236,924**	**243.9**	**2,362,721**	**226.3**	**164.3**
1989 Year	**753,217**	**144.5**	**237,668**	**284.6**	**246,422**	**289.3**	**2,472,506**	**235.5**	**167.5**
1990 Year	**786,627**	**145.5**	**202,281**	**331.9**	**209,350**	**338.4**	**2,490,979**	**232.1**	**168.9**
1991 Year	**769,923**	**144.7**	**163,106**	**246.5**	**169,625**	**254.8**	**2,630,818**	**215.3**	**160.3**
1992 Year	**775,963**	**141.2**	**138,537**	**247.5**	**144,390**	**255.1**	**2,637,678**	**232.8**	**159.0**
1993 Year	**769,152**	**138.5**	**141,719**	**236.2**	**147,902**	**243.3**	**2,574,523**	**256.0**	**159.5**
1994 Year	**831,929**	**135.5**	**135,184**	**240.9**	**142,940**	**248.8**	**2,863,904**	**223.0**	**152.6**
1995 January	70,206	133.1	5,565	273.1	6,113	282.7	188,545	209.2	145.4
February	65,789	133.5	6,150	256.2	6,535	263.1	163,665	197.1	143.7
March	69,059	133.8	5,040	258.9	5,448	267.4	233,533	189.0	144.3
April	66,167	133.7	2,849	266.2	3,221	280.3	222,256	194.5	144.1
May	68,564	133.7	5,864	279.0	6,213	285.8	245,676	202.1	147.3
June	64,543	133.3	8,476	274.3	9,083	282.0	281,987	202.8	150.4
July	67,734	130.4	8,367	250.8	8,838	257.2	376,158	186.1	146.1
August	73,242	130.9	9,284	237.0	10,029	247.7	424,284	179.4	145.1
September	70,938	131.8	9,036	234.7	9,432	241.3	302,928	189.5	145.1
October	70,140	129.6	5,553	242.5	6,060	253.8	228,644	204.1	142.6
November	70,196	130.2	4,773	250.5	5,414	268.8	189,641	218.9	143.3
December	70,281	127.7	7,259	295.8	7,905	305.7	166,010	255.3	146.1
Year	**826,860**	**131.8**	**78,216**	**258.6**	**84,292**	**267.9**	**3,023,327**	**198.4**	**145.3**
1996 January	67,852	129.1	13,855	332.4	14,540	337.1	155,022	281.0	155.5
February	66,620	129.3	6,099	282.5	7,021	300.6	131,688	294.7	148.5
March	69,921	130.2	9,031	285.2	9,595	296.8	149,233	268.4	149.0
April	70,361	130.8	8,263	309.7	8,724	319.0	160,918	264.6	150.0
May	72,158	130.7	5,882	304.4	6,437	317.6	251,461	247.6	151.8
June	69,677	129.2	8,825	277.0	9,508	288.2	285,271	255.1	155.1
July	75,178	127.8	10,793	276.6	11,380	284.4	346,295	263.9	158.2
August	78,545	127.7	10,484	282.5	10,971	290.6	346,542	250.7	154.6
September	72,730	127.5	5,538	293.6	5,926	307.1	269,988	219.1	145.3
October	75,756	128.9	5,675	331.9	6,407	354.7	217,115	233.8	146.6
November	71,375	127.9	6,382	333.3	7,159	354.4	162,258	301.9	151.0
December	72,525	127.6	8,098	338.1	8,961	355.2	128,870	393.1	156.1
Year	**862,701**	**128.9**	**98,926**	**303.4**	**106,629**	**315.7**	**2,604,663**	**264.1**	**151.9**
1997 January	71,900	128.0	8,811	305.7	9,652	321.0	133,193	405.8	157.5
February	69,089	129.0	8,958	287.5	9,346	295.3	134,946	315.5	150.9
2 Months	**140,989**	**128.5**	**17,769**	**296.5**	**18,998**	**308.3**	**268,139**	**360.1**	**154.2**
1996 2 Months	**134,472**	**129.2**	**19,954**	**317.1**	**21,561**	**325.2**	**286,711**	**287.3**	**152.1**
1995 2 Months	**135,995**	**133.3**	**11,714**	**264.2**	**12,648**	**272.5**	**352,210**	**203.6**	**144.6**

[a] Includes supplemental gaseous fuels.

[b] Heavy oil includes fuel oil nos. 4, 5, and 6, and topped crude oil. The weighted averages for petroleum and all fossil fuels include both heavy and light oil (fuel oil nos. 1 and 2, kerosene, and jet fuel) prices. Data do not include petroleum coke.

[c] Data for 1973-1982 do not include small quantities of rerefined motor oil, bunker oil, and liquefied petroleum gas.

R=Revised data.

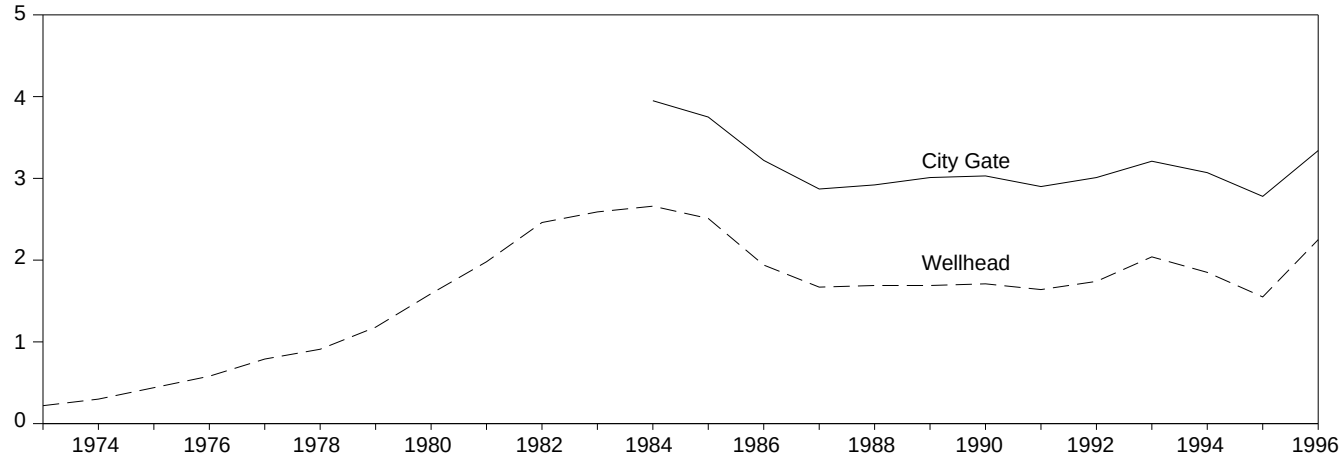
Notes: • See Note 8 at end of section. • Geographic coverage is the 50 States and the District of Columbia.

Sources: See end of section.

Figure 9.4 Natural Gas Prices

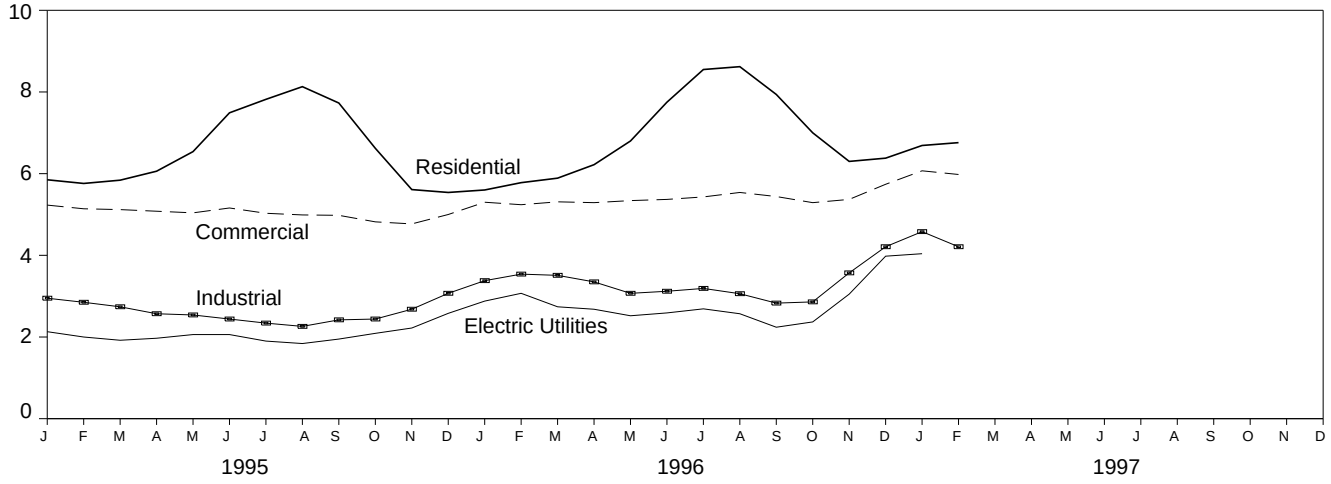
(Dollars per Thousand Cubic Feet)

Selected Prices, 1973-1996



Delivered to Consumers, 1973-1996

Delivered to Consumers, Monthly



Note: Because vertical scales differ, graphs should not be compared.
Source: Table 9.11.

Table 9.11 Natural Gas Prices

(Prices: Dollars per Thousand Cubic Feet; Share of Volume Delivered: Percentage)

	Wellhead	City Gate	Delivered to Consumers[a,b]					
			Residential	Commercial		Industrial		Electric Utilities[c]
				Price	Share of Total Volume Delivered	Price	Share of Total Volume Delivered	
1973 Average	**0.22**	**NA**	**1.29**	**0.94**	**NA**	**0.50**	**NA**	**0.38**
1974 Average	**.30**	**NA**	**1.43**	**1.07**	**NA**	**.67**	**NA**	**.51**
1975 Average	**.44**	**NA**	**1.71**	**1.35**	**NA**	**.96**	**NA**	**.77**
1976 Average	**.58**	**NA**	**1.98**	**1.64**	**NA**	**1.24**	**NA**	**1.06**
1977 Average	**.79**	**NA**	**2.35**	**2.04**	**NA**	**1.50**	**NA**	**1.32**
1978 Average	**.91**	**NA**	**2.56**	**2.23**	**NA**	**1.70**	**NA**	**1.48**
1979 Average	**1.18**	**NA**	**2.98**	**2.73**	**NA**	**1.99**	**NA**	**1.81**
1980 Average	**1.59**	**NA**	**3.68**	**3.39**	**NA**	**2.56**	**NA**	**2.27**
1981 Average	**1.98**	**NA**	**4.29**	**4.00**	**NA**	**3.14**	**NA**	**2.89**
1982 Average	**2.46**	**NA**	**5.17**	**4.82**	**NA**	**3.87**	**85.1**	**3.48**
1983 Average	**2.59**	**NA**	**6.06**	**5.59**	**NA**	**4.18**	**80.7**	**3.58**
1984 Average	**2.66**	**3.95**	**6.12**	**5.55**	**NA**	**4.22**	**74.7**	**3.70**
1985 Average	**2.51**	**3.75**	**6.12**	**5.50**	**NA**	**3.95**	**68.8**	**3.55**
1986 Average	**1.94**	**3.22**	**5.83**	**5.08**	**NA**	**3.23**	**59.8**	**2.43**
1987 Average	**1.67**	**2.87**	**5.54**	**4.77**	**93.1**	**2.94**	**47.4**	**2.32**
1988 Average	**1.69**	**2.92**	**5.47**	**4.63**	**90.8**	**2.95**	**42.6**	**2.33**
1989 Average	**1.69**	**3.01**	**5.64**	**4.74**	**89.1**	**2.96**	**36.9**	**2.43**
1990 Average	**1.71**	**3.03**	**5.80**	**4.83**	**86.6**	**2.93**	**35.2**	**2.38**
1991 Average	**1.64**	**2.90**	**5.82**	**4.81**	**85.1**	**2.69**	**32.7**	**2.18**
1992 Average	**1.74**	**3.01**	**5.89**	**4.88**	**83.2**	**2.84**	**30.3**	**2.36**
1993 Average	**2.04**	**3.21**	**6.16**	**5.22**	**83.9**	**3.07**	**29.7**	**2.61**
1994 Average	**1.85**	**3.07**	**6.41**	**5.44**	**79.3**	**3.05**	**25.5**	**2.28**
1995 January	1.62	2.79	5.85	5.23	81.6	2.95	27.3	2.13
February	1.48	2.71	5.76	5.14	81.7	2.85	27.4	2.00
March	1.47	2.74	5.84	5.12	81.2	2.74	26.5	1.92
April	1.52	2.72	6.06	5.08	77.2	2.57	25.4	1.97
May	1.55	2.80	6.54	5.04	71.8	2.54	23.6	2.06
June	1.58	2.89	7.49	5.16	71.4	2.44	24.5	2.06
July	1.43	2.89	7.82	5.03	67.3	2.34	22.2	1.90
August	1.43	2.87	8.13	4.99	66.6	2.26	21.8	1.84
September	1.52	2.89	7.73	4.98	67.9	2.42	22.0	1.95
October	1.54	2.83	6.62	4.82	69.7	2.44	22.5	2.09
November	1.61	2.67	5.61	4.77	75.6	2.68	24.7	2.22
December	1.84	2.83	5.54	5.00	79.2	3.07	25.0	2.58
Average	**1.55**	**2.78**	**6.06**	**5.05**	**76.7**	**2.71**	**24.5**	**2.02**
1996 January	2.08	3.13	5.60	R 5.30	R 76.3	3.38	R 21.6	2.88
February	1.90	3.16	5.78	5.24	R 76.9	3.54	R 20.5	R 3.07
March	2.03	3.17	5.89	R 5.31	R 74.6	3.51	19.3	R 2.74
April	2.13	3.22	6.22	R 5.29	R 72.3	3.35	18.7	2.68
May	2.04	3.18	6.80	R 5.34	R 67.1	3.07	17.5	2.52
June	2.13	3.39	7.75	R 5.37	R 62.6	3.12	15.6	2.59
July	2.33	3.48	8.55	5.43	R 60.7	3.19	17.2	2.69
August	2.19	R 3.48	8.62	R 5.54	R 58.8	3.06	14.8	2.57
September	1.87	3.03	7.94	R 5.44	R 59.1	2.83	14.6	R 2.24
October	1.93	2.93	R 7.00	5.29	62.0	2.86	15.8	2.37
November	2.70	R 3.47	R 6.30	5.37	R 68.6	R 3.57	16.6	R 3.05
December	3.53	4.20	R 6.38	5.74	R 70.9	R 4.21	R 18.1	3.98
Average	**2.25**	**3.34**	**R 6.29**	**R 5.38**	**R 70.5**	**3.34**	**17.6**	**R 2.69**
1997 January	3.58	R 4.31	6.69	R 6.07	R 72.1	4.58	17.9	R 4.04
February	E 2.73	3.73	6.76	5.98	71.2	4.21	16.3	NA
2-Month Average	**E 3.16**	**4.06**	**6.72**	**6.03**	**71.7**	**4.41**	**17.2**	**4.04**
1996 2-Month Average	**1.99**	**3.14**	**5.68**	**5.27**	**76.6**	**3.46**	**21.1**	**2.97**
1995 2-Month Average	**1.55**	**2.75**	**5.81**	**5.19**	**81.6**	**2.90**	**27.0**	**2.07**

[a] Includes supplemental gaseous fuels.
[b] See Note 9 at end of section.
[c] See Note 8 at end of section.
R=Revised data. NA=Not available. E=Estimate.
Notes: • Prices shown on this page are intended to include all taxes. See Note 9 at end of section. • Wellhead annual and year-to-date prices are simple averages of the monthly prices; all other annual and year-to-date prices are volume-weighted averages of the monthly prices. • Geographic coverage is the 50 States and the District of Columbia.
Sources: See end of section.

Energy Prices Notes

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

2. F.O.B. 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 Energy Information Administration (EIA) Form EIA-14, "Refiners' Monthly Cost Report." Those costs were previously published from data collected on Economic Regulatory Administration (ERA) Form ERA-49, "Domestic Crude Oil Entitlements Program Refiners Monthly Report." Form ERA-49 was discontinued with the decontrol of crude oil on January 28, 1981. Crude oil purchases and costs are defined for Form EIA-14 in accordance with conventions used for Form ERA-49. The respondents for the two forms are also 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 when comparing the data collected on the two forms.

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

Crude oil costs and volumes reported on Form ERA-49 excluded unfinished oils but included the Strategic Petroleum Reserve (SPR). Crude oil costs and volumes reported on Federal Energy Administration (FEA) Form FEA-P110-M-1, "Refiners' Monthly Cost Allocation Report," included unfinished oils but excluded SPR. Imported averages derived from Form ERA-49 exclude oil purchased for SPR, whereas the composite averages derived from Form ERA-49 include SPR. None of the prices derived from Form EIA-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 of 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. From 1974-1977, prices were collected in 56 urban areas. From 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 prices of finished motor gasoline for resale and to end users are determined by the EIA in a monthly survey of refiners and gas plant operators (Form EIA-782A). The prices do not include any Federal, State, or local taxes paid at the time of sale. Estimates of prices prior to January 1983 are based on Form FEA-P302-M-1/EIA-460, "Petroleum Industry Monthly Report for Product Prices," and also exclude all Federal, State, or local taxes paid at the time of sale. Sales for resale are those made to purchasers who are other-than-ultimate consumers. Sales to end users are sales made directly to the consumer of the product, including bulk consumers (such as agriculture, industry, and utilities) and residential and commercial consumers.

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

resellers. However, sales to bulk consumers, such as 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 sales to the bulk consumers such as agriculture, industry, and electric utilities. 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 EIA.

7. National average electricity prices are shown in two data series. The "Annual Series" is based on data from publicly and privately owned electric utilities that report on Form EIA-861, "Annual Electric Utility Report." The "Monthly Series" is based on data from over 250 utilities statistically chosen as a sample of the utilities that report on Form EIA-861. The selected utilities report monthly on Form EIA-826, "Monthly Electric Utility Sales and Revenue Report with State Distributions," formerly the "Electric Utility Company Monthly Statement." Annual values shown for the monthly series are the sum of the monthly revenue divided by the sum of the monthly sales. Prior to January 1986, only privately owned utilities were included in the monthly survey and the sample was chosen by using cut-off techniques; from January 1986 through 1992, the sample was chosen using stratification techniques.

8. Data for 1973-1982 cover all electric generating plants at which the generator nameplate capacity of all steam-electric units combined totaled 25 megawatts or greater. From 1974-1982, peaking units were included in the data and counted towards the 25-megawatt-or-greater total. Data for 1983-1990 cover all electric generating plants at which the generator nameplate capacity of all steam-electric units combined totaled 50 megawatts or greater. Data for 1991 forward cover all electric generating plants at which the generator nameplate capacity of all steam-electric units and combined-cycle units together totaled 50 megawatts or greater.

9. Natural gas prices are intended to include all taxes. Instructions on the data collection forms specifically direct that all Federal, State, and local taxes, surcharges, and/or adjustments billed to consumers are to be included. However, sales and other taxes itemized on more than 3,000 consumers' bills are sometimes excluded by the reporting utilities. Delivered-to-consumers prices for 1987 forward represent natural gas delivered and sold to residential, commercial, industrial, and electric utility consumers. They do not include the price of natural gas delivered to industrial and commercial consumers on behalf of third parties. Volumes of natural gas delivered on behalf of third parties are included in the consumption data shown in Table 4.4. Additional information is available in the EIA *Natural Gas Monthly*, Appendix C.

Sources for Table 9.1

Domestic First Purchase Price

1973-1976: U.S. Department of the Interior (DOI), Bureau of Mines (BOM), *Minerals Yearbook*, "Crude Petroleum and Petroleum Products" chapter.

1977: Federal Energy Administration (FEA), based on Form FEA-P124, "Domestic Crude Oil Purchaser's Monthly Report."

1978 forward: Energy Information Administration (EIA), *Petroleum Marketing Monthly*, June 1997, Table 1.

F.O.B. and Landed Cost of Imports

November 1973-September 1977: Federal Energy Administration, Form FEA-F701-M-0, "Transfer Pricing Report."

October-December 1977: EIA, Form FEA-F701-M-0, "Transfer Pricing Report."

1978 forward: EIA, *Petroleum Marketing Monthly*, June 1997, Table 1.

Refiner Acquisition Cost

1973: EIA estimates. The domestic price was derived by adding estimated transportation costs to the reported domestic first purchase price. The imported price was derived by adding an estimated ocean transport cost to the average "Free Alongside Ship" value published by the U.S. Bureau of the Census.

1974-1976: DOI, BOM, *Minerals Yearbook*, "Crude Petroleum and Petroleum Products" chapter.

1977: January-September, FEA, based on Form FEA-P110-M-1, "Refiners' Monthly Cost Allocation Report." October-December, EIA, based on Form FEA-P110-M-1, "Refiners' Monthly Cost Allocation Report."

1978 forward: EIA, *Petroleum Marketing Monthly*, June 1997, Table 1.

Sources for Table 9.2

October 1973-September 1977: Federal Energy Administration, Form FEA-F701-M-0, "Transfer Pricing Report."

October 1977-December 1977: Energy Information Administration (EIA), Form FEA-F701-M-0, "Transfer Pricing Report."

1978 forward: EIA, *Petroleum Marketing Monthly*, June 1997, Table 24.

Sources for Table 9.9

Monthly Series

September 1977: Federal Power Commission, Form FPC-5, "Monthly Statement of Electric Operating Revenue and Income."
October 1977-February 1980: Federal Energy Regulatory Commission (FERC), Form FERC-5, "Electric Operating Revenue and Income."
March 1980-December 1980: FERC, Form FERC-5, "Electric Utility Company Monthly Statement."
1981: Energy Information Administration (EIA) *Electric Power Monthly*, March 1992, Table 59.
1982: EIA, *Electric Power Monthly*, March 1993 Table 59.
1983: EIA, *Electric Power Monthly*, March 1994, Table 59.
1984 (and 1993 monthly data): EIA, *Electric Power Monthly*, March 1995, Table 60.
1985 forward (except 1993 monthly data): EIA, *Electric Power Monthly*, June 1997, Table 60.

Annual Series

1984: EIA, *Electric Power Monthly*, March 1995, Table 60.
1985-1989: EIA, *Electric Power Monthly*, March 1996, Table 60.
1990-1994: EIA, *Electric Sales and Revenue*, June 1997, Table 11.

Sources for Table 9.10

1973-1979: Annual data for quantity are simple sums of unrounded monthly values and for cost are averages of monthly values, weighted by quantities of Btu, from the following:
1973-May 1977: Federal Power Commission, Form FPC-423, "Monthly Report on Cost and Quality of Fuels for Electric Utility Plants."
June 1977-December 1977: Federal Energy Regulatory Commission, Form FERC-423, "Monthly Report on Cost and Quality of Fuels for Electric Utility Plants."
1978 and 1979: Energy Information Administration (EIA), Form FERC-423, "Monthly Report on Cost and Quality of Fuels for Electric Utility Plants."
1980: EIA, *Electric Power Monthly*, April 1991, Table 33.
1981: EIA, *Electric Power Monthly*, April 1992, Table 33.
1982: EIA, *Electric Power Monthly*, April 1993, Table 33.
1983: EIA, *Electric Power Monthly*, April 1994, Table 34.
1984 forward: EIA, *Electric Power Monthly*, June 1997, Table 34

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Sources for Table 9.11

Prices, 1973-1989

Wellhead: Energy Information Administration (EIA), *Natural Gas Annual 1994, Volume 1*, Table 99.
City Gate, 1984-1986: EIA, *Natural Gas Monthly*, December 1989, Table 4.
City Gate, 1987-1989: EIA, *Natural Gas Monthly*, December 1994, Table 4.
Delivered to Consumers, 1973-1989: EIA, *Natural Gas Annual 1994, Volume 1*, Table 102.

Prices, 1990 forward

EIA, *Natural Gas Monthly*, May 1997, Table 4.

Share of Total Volume Delivered, Annual

Calculated from EIA, *Natural Gas Annual, Volume 1*, report series, Table 1, "Summary Statistics for Natural Gas in the United States," as total amount of natural gas delivered to the sector's consumers minus the amount delivered for the account of others (to derive the amount on system) divided by the total amount delivered to the sector.

Share of Total Volume Delivered, Monthly

EIA, table titled, "Percentage of Total Deliveries Represented by Onsystem Sales, by State," in the *Natural Gas Monthly* issues as follows:

April 1988-March 1989	-	Table C-1
April 1989-December 1991	-	Table 33
January 1992-February 1993	-	Table 32
March 1993-October 1995	-	Table 28
November 1995-Present	-	Table 24

Section 10. International Energy

Crude Oil Production. World crude oil production during March 1997 was 66 million barrels per day, up 0.2 million barrels per day from the level in the previous month. World crude oil production in the first quarter of 1997 averaged 66 million barrels per day, up 4 percent from the first quarter 1996 average.

Organization of Petroleum Exporting Countries (OPEC) production during March 1997 averaged 28 million barrels per day, up 0.3 million barrels per day from the level during the previous month. OPEC production during the first quarter of 1997 averaged 28 million barrels per day, up 5 percent from the first quarter 1996 average. During March 1997, production increased in Iraq by 210 thousand barrels per day, Saudi Arabia by 107 thousand barrels per day, the United Arab Emirates by 30 thousand barrels per day, and Kuwait by 28 thousand barrels per day. Production also increased in Venezuela, Indonesia, Libya, and Algeria, each by 10 thousand barrels per day. Production decreased in Nigeria by 70 thousand barrels per day and remained unchanged in Iran and Qatar.

Among the non-OPEC nations, production during March 1997 increased in Russia by 77 thousand barrels per day and China by 10 thousand barrels per day. Production decreased in Norway by 200 thousand barrels per day, the United States by 44 thousand barrels per day, the United Kingdom by 22 thousand barrels per day, Canada by 20 thousand barrels per day, and Egypt by 10 thousand barrels per day. Production remained the same in Mexico.

Petroleum Consumption. In January 1997, consumption in all Organization for Economic Cooperation and Development (OECD) countries was 42.3 million barrels per day, 2 percent[1] higher than the January 1996 rate. The consumption rate was higher than it was 1 year ago in France (+15 percent), the United Kingdom (+4 percent), Canada (+3 percent), and the United States and Japan (both +2 percent). Consumption rates were lower in Italy (-2 percent) and Germany (less than 1 percent), compared with the rate 1 year earlier.

Petroleum Stocks. For all OECD countries, petroleum stocks at the end of January 1997 totaled 3.6 billion barrels, slightly higher than the ending stock level in January 1996. Stocks were higher in Canada (+4 percent), Japan (+2 percent), France and Germany (both +1 percent), and Italy (less than 1 percent). Stock levels were lower in the United States (-3 percent) and the United Kingdom (less than -1 percent), compared with levels 1 year earlier.

Nuclear Electricity Generation. Based on *Nucleonics Week*[2] information for March 1997, all reporting countries with nuclear capacity generated 204 gross terawatthours (one terawatthour equals 1 billion kilowatthours) of nuclear-generated electricity.

As of March 31, 1997, there were 437 operable nuclear generating units in the world.

[1] Percentage changes are based on unrounded data.

[2] A copyrighted publication of The McGraw-Hill Publishing Companies, Inc. Used with permission.

Table 10.1a World Oil Production: OPEC Members

(Thousand Barrels per Day)

	Algeria	Indonesia	Iran	Iraq	Kuwait[a]	Libya	Nigeria	Qatar	Saudi Arabia[a]	United Arab Emirates	Venezuela	OPEC[b]
1973 Average	**1,097**	**1,339**	**5,861**	**2,018**	**3,020**	**2,175**	**2,054**	**570**	**7,596**	**1,533**	**3,366**	**30,629**
1974 Average	**1,009**	**1,375**	**6,022**	**1,971**	**2,546**	**1,521**	**2,255**	**518**	**8,480**	**1,679**	**2,976**	**30,351**
1975 Average	**983**	**1,307**	**5,350**	**2,262**	**2,084**	**1,480**	**1,783**	**438**	**7,075**	**1,664**	**2,346**	**26,771**
1976 Average	**1,075**	**1,504**	**5,883**	**2,415**	**2,145**	**1,933**	**2,067**	**497**	**8,577**	**1,936**	**2,294**	**30,327**
1977 Average	**1,152**	**1,686**	**5,663**	**2,348**	**1,969**	**2,063**	**2,085**	**445**	**9,245**	**1,999**	**2,238**	**30,893**
1978 Average	**1,231**	**1,635**	**5,242**	**2,563**	**2,131**	**1,983**	**1,897**	**487**	**8,301**	**1,831**	**2,165**	**29,464**
1979 Average	**1,224**	**1,591**	**3,168**	**3,477**	**2,500**	**2,092**	**2,302**	**508**	**9,532**	**1,831**	**2,356**	**30,581**
1980 Average	**1,106**	**1,577**	**1,662**	**2,514**	**1,656**	**1,787**	**2,055**	**472**	**9,900**	**1,709**	**2,168**	**26,606**
1981 Average	**1,002**	**1,605**	**1,380**	**1,000**	**1,125**	**1,140**	**1,433**	**405**	**9,815**	**1,474**	**2,102**	**22,481**
1982 Average	**987**	**1,339**	**2,214**	**1,012**	**823**	**1,150**	**1,295**	**330**	**6,483**	**1,250**	**1,895**	**18,778**
1983 Average	**968**	**1,343**	**2,440**	**1,005**	**1,064**	**1,105**	**1,241**	**295**	**5,086**	**1,149**	**1,801**	**17,497**
1984 Average	**1,014**	**1,412**	**2,174**	**1,209**	**1,157**	**1,087**	**1,388**	**394**	**4,663**	**1,146**	**1,798**	**17,442**
1985 Average	**1,037**	**1,325**	**2,250**	**1,433**	**1,023**	**1,059**	**1,495**	**301**	**3,388**	**1,193**	**1,677**	**16,181**
1986 Average	**945**	**1,390**	**2,035**	**1,690**	**1,419**	**1,034**	**1,467**	**308**	**4,870**	**1,330**	**1,787**	**18,275**
1987 Average	**1,048**	**1,343**	**2,298**	**2,079**	**1,585**	**972**	**1,341**	**293**	**4,265**	**1,541**	**1,752**	**18,517**
1988 Average	**1,040**	**1,342**	**2,240**	**2,685**	**1,492**	**1,175**	**1,450**	**346**	**5,086**	**1,565**	**1,903**	**20,324**
1989 Average	**1,095**	**1,409**	**2,810**	**2,897**	**1,783**	**1,150**	**1,716**	**380**	**5,064**	**1,860**	**1,907**	**22,071**
1990 Average	**1,175**	**1,462**	**3,088**	**2,040**	**1,175**	**1,375**	**1,810**	**406**	**6,410**	**2,117**	**2,137**	**23,195**
1991 Average	**1,230**	**1,592**	**3,312**	**305**	**190**	**1,483**	**1,892**	**395**	**8,115**	**2,386**	**2,375**	**23,275**
1992 Average	**1,214**	**1,504**	**3,429**	**425**	**1,058**	**1,433**	**1,943**	**423**	**8,332**	**2,266**	**2,371**	**24,398**
1993 Average	**1,162**	**1,511**	**3,540**	**512**	**1,852**	**1,361**	**1,960**	**413**	**8,198**	**2,159**	**2,450**	**25,119**
1994 Average	**1,180**	**1,510**	**3,618**	**553**	**2,025**	**1,378**	**1,931**	**415**	**8,120**	**2,193**	**2,588**	**25,510**
1995 January	1,185	1,500	3,585	560	2,070	1,390	1,965	455	8,120	2,285	2,600	25,715
February	1,185	1,480	3,685	560	2,070	1,390	1,946	475	8,220	2,285	2,600	25,896
March	1,185	1,490	3,485	560	2,060	1,390	1,857	485	8,110	2,285	2,600	25,507
April	1,185	1,490	3,635	560	2,070	1,390	2,015	485	8,220	2,285	2,670	26,005
May	1,185	1,490	3,835	560	2,050	1,390	2,044	485	8,400	2,285	2,790	26,514
June	1,185	1,490	3,585	560	2,050	1,390	1,926	485	8,100	2,285	2,790	25,846
July	1,215	1,490	3,535	560	2,060	1,390	1,946	485	8,410	2,285	2,790	26,166
August	1,215	1,490	3,685	560	2,075	1,390	2,000	485	8,425	2,285	2,790	26,400
September	1,215	1,490	3,635	560	2,035	1,390	2,005	485	8,315	2,285	2,790	26,205
October	1,215	1,540	3,735	560	2,065	1,390	2,024	485	8,315	2,285	2,840	26,454
November	1,225	1,540	3,635	560	2,070	1,390	2,074	495	8,020	2,285	2,840	26,133
December	1,225	1,540	3,685	560	2,015	1,390	2,108	495	8,110	2,220	2,890	26,237
Average	**1,202**	**1,503**	**3,643**	**560**	**2,057**	**1,390**	**1,993**	**483**	**8,231**	**2,279**	**2,750**	**26,092**
1996 January	1,220	1,540	3,735	555	2,038	1,400	2,160	500	8,118	2,290	2,940	26,495
February	1,220	1,540	3,685	555	2,057	1,400	2,180	500	8,248	2,265	2,940	26,590
March	1,210	1,540	3,715	555	2,057	1,400	2,190	500	8,248	2,285	2,990	26,690
April	1,230	1,530	3,685	555	2,067	1,400	2,160	505	8,088	2,250	2,990	26,460
May	1,245	1,530	3,635	555	2,055	1,400	2,200	505	8,135	2,275	2,990	26,525
June	1,250	1,550	3,685	555	2,065	1,400	2,200	505	8,195	2,270	2,990	26,665
July	1,250	1,520	3,685	555	2,065	1,400	2,170	505	8,295	2,260	3,040	26,745
August	1,250	1,540	3,715	555	2,040	1,400	2,190	505	8,220	2,260	3,090	26,765
September	1,250	1,560	3,735	555	2,070	1,400	2,150	525	8,200	2,310	3,090	26,845
October	1,260	1,580	3,635	555	2,075	1,400	2,210	525	8,255	2,310	3,140	26,945
November	1,260	1,570	3,685	555	2,075	1,400	2,220	505	8,255	2,250	3,190	26,965
December	1,260	1,570	3,635	895	2,077	1,410	2,225	545	8,358	2,305	3,240	27,520
Average	**1,242**	**1,547**	**3,686**	**584**	**2,062**	**1,401**	**2,188**	**510**	**8,218**	**2,278**	**3,053**	**26,769**
1997 January	1,260	1,570	3,685	1,085	2,085	1,430	2,250	585	8,265	2,300	3,190	27,705
February	1,270	1,590	3,685	1,125	2,077	1,430	2,310	585	8,408	2,330	3,190	28,000
March	1,280	1,600	3,685	1,335	2,105	1,440	2,240	585	8,515	2,360	3,200	28,345
3-Mo. Avg.	**1,270**	**1,587**	**3,685**	**1,184**	**2,089**	**1,433**	**2,265**	**585**	**8,396**	**2,330**	**3,193**	**28,017**
1996 3-Mo. Avg.	**1,217**	**1,540**	**3,712**	**555**	**2,050**	**1,400**	**2,177**	**500**	**8,204**	**2,280**	**2,957**	**26,592**
1995 3-Mo. Avg.	**1,185**	**1,490**	**3,582**	**560**	**2,067**	**1,390**	**1,922**	**472**	**8,148**	**2,285**	**2,600**	**25,700**

[a] Includes about one-half of the production in the Kuwait-Saudi Arabia Neutral Zone from 1973 through July 1990 and in June 1991. Kuwaiti Neutral Zone output was discontinued following Iraq's invasion of Kuwait on August 2, 1990, but was resumed in June 1991. In March 1997, Neutral Zone production by both Kuwait and Saudi Arabia totaled about 530 thousand barrels per day.

[b] Current members of OPEC are Algeria, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, and Venezuela. Ecuador and Gabon, which withdrew from OPEC membership at the end of 1992 and 1994, respectively, are excluded from all OPEC totals.

Notes: • Crude oil includes lease condensate but excludes natural gas plant liquids. • 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 end of section.

Table 10.1b World Oil Production: Persian Gulf Nations, Non-OPEC, and World

(Thousand Barrels per Day)

	Persian Gulf Nations[a]	Selected Non-OPEC Producers									Total Non-OPEC	World
		Canada	China	Egypt	Mexico	Norway	Former U.S.S.R.	Russia	United Kingdom	United States		
1973 Average	**20,668**	**1,798**	**1,090**	**165**	**465**	**32**	**8,324**	**NA**	**2**	**9,208**	**25,050**	**55,679**
1974 Average	**21,282**	**1,551**	**1,315**	**150**	**571**	**35**	**8,912**	**NA**	**2**	**8,774**	**25,366**	**55,716**
1975 Average	**18,934**	**1,430**	**1,490**	**235**	**705**	**189**	**9,523**	**NA**	**12**	**8,375**	**26,058**	**52,828**
1976 Average	**21,514**	**1,314**	**1,670**	**330**	**831**	**279**	**10,060**	**NA**	**245**	**8,132**	**27,018**	**57,344**
1977 Average	**21,725**	**1,321**	**1,874**	**415**	**981**	**280**	**10,603**	**NA**	**768**	**8,245**	**28,814**	**59,707**
1978 Average	**20,606**	**1,316**	**2,082**	**485**	**1,209**	**356**	**11,105**	**NA**	**1,082**	**8,707**	**30,694**	**60,158**
1979 Average	**21,066**	**1,500**	**2,122**	**525**	**1,461**	**403**	**11,384**	**NA**	**1,568**	**8,552**	**32,094**	**62,674**
1980 Average	**17,961**	**1,435**	**2,114**	**595**	**1,936**	**528**	**11,706**	**NA**	**1,622**	**8,597**	**32,994**	**59,600**
1981 Average	**15,245**	**1,285**	**2,012**	**598**	**2,313**	**501**	**11,850**	**NA**	**1,811**	**8,572**	**33,595**	**56,076**
1982 Average	**12,156**	**1,271**	**2,045**	**670**	**2,748**	**520**	**11,912**	**NA**	**2,065**	**8,649**	**34,703**	**53,481**
1983 Average	**11,081**	**1,356**	**2,120**	**727**	**2,689**	**614**	**11,972**	**NA**	**2,291**	**8,688**	**35,759**	**53,256**
1984 Average	**10,784**	**1,438**	**2,296**	**822**	**2,780**	**697**	**11,861**	**NA**	**2,480**	**8,879**	**37,047**	**54,489**
1985 Average	**9,630**	**1,471**	**2,505**	**887**	**2,745**	**788**	**11,585**	**NA**	**2,530**	**8,971**	**37,801**	**53,982**
1986 Average	**11,696**	**1,474**	**2,620**	**813**	**2,435**	**870**	**11,895**	**NA**	**2,539**	**8,680**	**37,952**	**56,227**
1987 Average	**12,103**	**1,535**	**2,690**	**896**	**2,548**	**1,022**	**12,050**	**NA**	**2,406**	**8,349**	**38,149**	**56,666**
1988 Average	**13,457**	**1,616**	**2,730**	**848**	**2,512**	**1,158**	**12,053**	**NA**	**2,232**	**8,140**	**38,413**	**58,737**
1989 Average	**14,837**	**1,560**	**2,757**	**865**	**2,520**	**1,554**	**11,715**	**NA**	**1,802**	**7,613**	**37,792**	**59,863**
1990 Average	**15,278**	**1,553**	**2,774**	**873**	**2,553**	**1,704**	**10,975**	**NA**	**1,820**	**7,355**	**37,371**	**60,566**
1991 Average	**14,741**	**1,548**	**2,835**	**874**	**2,680**	**1,890**	**9,992**	**NA**	**1,797**	**7,417**	**36,932**	**60,207**
1992 Average	**15,970**	**1,605**	**2,845**	**881**	**2,669**	**2,229**	**–**	**7,632**	**1,825**	**7,171**	**35,818**	**60,216**
1993 Average	**16,715**	**1,679**	**2,890**	**890**	**2,673**	**2,350**	**–**	**6,730**	**1,915**	**6,847**	**35,129**	**60,247**
1994 Average	**16,964**	**1,746**	**2,939**	**896**	**2,685**	**2,521**	**–**	**6,135**	**2,375**	**6,662**	**35,493**	**61,003**
1995 January	17,116	1,780	2,925	920	2,680	2,660	–	5,899	2,520	6,682	36,130	61,845
February	17,336	1,763	2,975	920	2,645	2,605	–	6,091	2,610	6,794	36,470	62,366
March	17,026	1,728	2,975	920	2,670	2,680	–	5,899	2,565	6,600	36,115	61,622
April	17,296	1,799	2,975	920	2,670	2,735	–	5,995	2,570	6,604	36,418	62,422
May	17,656	1,742	2,955	920	2,680	2,750	–	6,091	2,305	6,629	35,913	62,427
June	17,106	1,835	2,955	920	2,700	2,480	–	6,086	1,857	6,579	35,718	61,564
July	17,376	1,831	2,955	920	2,705	2,765	–	6,004	2,350	6,449	36,357	62,523
August	17,556	1,793	2,990	920	2,710	2,560	–	6,050	2,405	6,447	36,241	62,641
September	17,356	1,878	3,044	920	2,740	2,775	–	6,017	2,655	6,416	36,836	63,041
October	17,486	1,828	3,044	920	1,900	3,030	–	6,027	2,739	6,421	36,251	62,705
November	17,106	1,828	3,044	920	2,555	3,060	–	5,885	2,685	6,585	36,771	62,904
December	17,126	1,858	3,044	920	2,765	3,095	–	5,908	2,615	6,530	37,055	63,293
Average	**17,295**	**1,805**	**2,990**	**920**	**2,618**	**2,768**	**–**	**5,995**	**2,489**	**6,560**	**36,354**	**62,446**
1996 January	17,270	1,775	3,115	920	2,795	3,085	–	E 5,763	2,600	E 6,495	36,890	63,385
February	17,345	1,705	3,100	920	2,800	3,165	–	E 5,867	2,625	E 6,550	37,169	63,759
March	17,395	1,800	3,050	920	2,870	2,990	–	E 5,755	2,570	E 6,516	36,889	63,579
April	17,185	1,840	3,020	920	2,860	3,160	–	E 5,763	2,467	E 6,479	37,065	63,525
May	17,195	1,755	3,195	920	2,875	2,980	–	E 5,789	2,512	E 6,443	37,012	63,537
June	17,310	1,815	3,205	920	2,880	3,150	–	E 5,763	2,457	E 6,502	37,199	63,864
July	17,400	1,795	3,150	920	2,870	3,201	–	E 5,737	2,537	E 6,383	37,211	63,956
August	17,330	1,858	3,130	920	2,830	3,022	–	E 5,780	2,385	E 6,389	36,844	63,609
September	17,430	1,840	3,140	920	2,860	3,095	–	E 5,750	2,517	E 6,503	37,214	64,059
October	17,390	1,922	3,165	920	2,860	3,005	–	E 5,737	2,642	E 6,490	37,493	64,438
November	17,360	1,875	3,190	930	2,860	3,210	–	E 5,832	2,743	E 6,465	37,911	64,876
December	17,850	1,891	3,115	930	2,900	3,198	–	E 5,755	2,760	E 6,448	37,878	65,398
Average	**17,372**	**1,823**	**3,131**	**922**	**2,855**	**3,104**	**–**	**E 5,774**	**2,568**	**E 6,471**	**37,230**	**63,999**
1997 January	18,040	1,874	3,210	R 885	2,940	3,268	–	5,789	2,693	E 6,387	R 38,027	R 65,732
February	18,245	1,920	R 3,240	R 885	2,970	3,263	–	R 5,729	2,660	E 6,514	R 38,151	R 66,151
March	18,620	1,900	3,250	875	2,970	3,063	–	5,806	2,638	E 6,470	38,011	66,356
3-Mo. Avg.	**18,304**	**1,897**	**3,233**	**882**	**2,960**	**3,196**	**–**	**5,776**	**2,664**	**E 6,455**	**38,060**	**66,077**
1996 3-Mo. Avg.	**17,336**	**1,761**	**3,088**	**920**	**2,822**	**3,078**	**–**	**5,793**	**2,598**	**E 6,519**	**36,979**	**63,570**
1995 3-Mo. Avg.	**17,153**	**1,757**	**2,958**	**920**	**2,666**	**2,650**	**–**	**5,958**	**2,563**	**6,689**	**36,231**	**61,931**

[a] "The Persian Gulf Nations are Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, and the United Arab Emirates. Production from the Neutral Zone between Kuwait and Saudi Arabia is included in "Persian Gulf Nations."

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

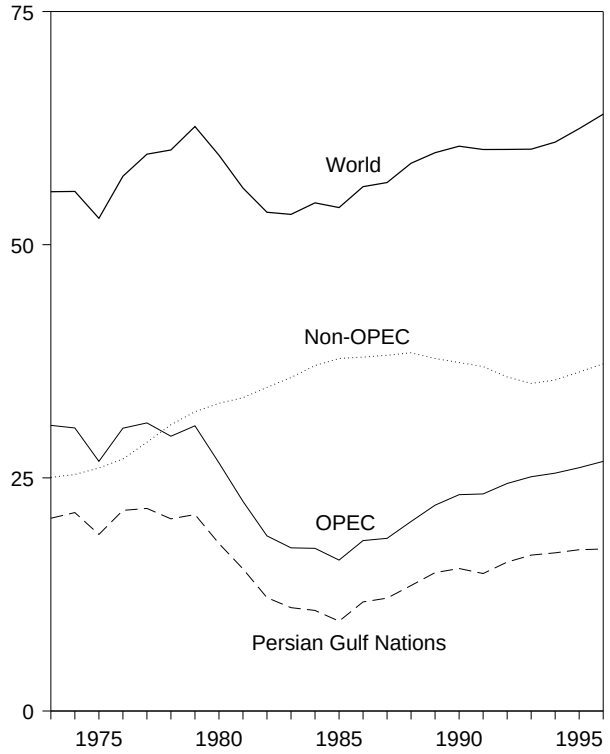
Notes: • Crude oil includes lease condensate but excludes natural gas plant liquids. • Monthly data are often preliminary figures and may not average to the annual totals because of rounding or because updates to the preliminary monthly data are not available. • Data for countries may not sum to World totals due to independent rounding. • U.S. geographic coverage is the 50 States and the District of Columbia.

Sources: See end of section.

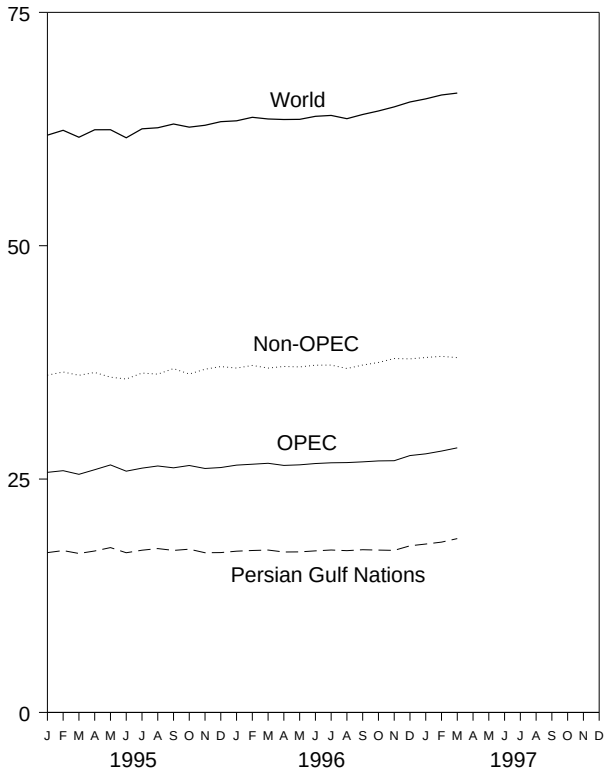
Figure 10.1 Crude Oil Production

(Million Barrels per Day)

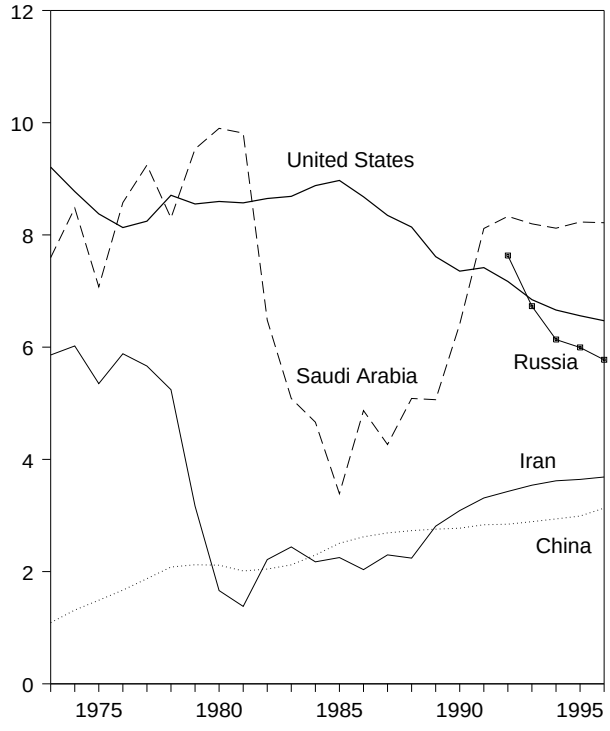
World Production, 1973-1996



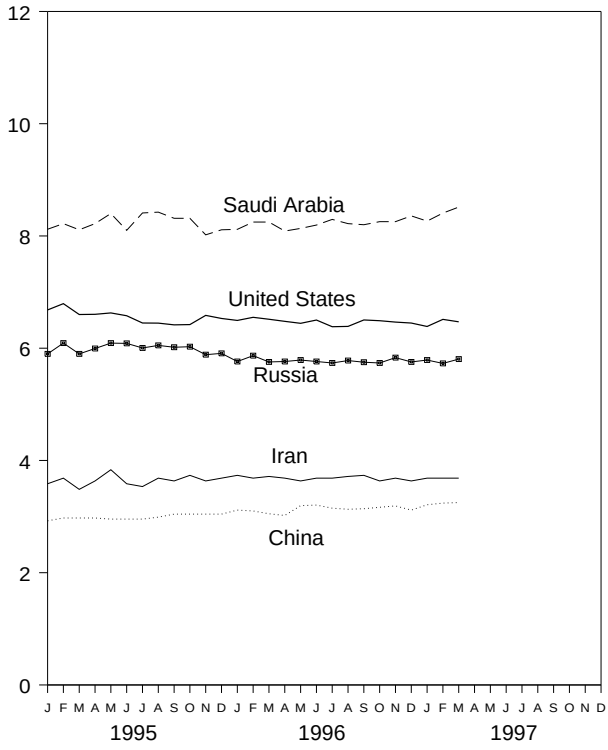
World Production, Monthly



Selected Producers, 1973-1996



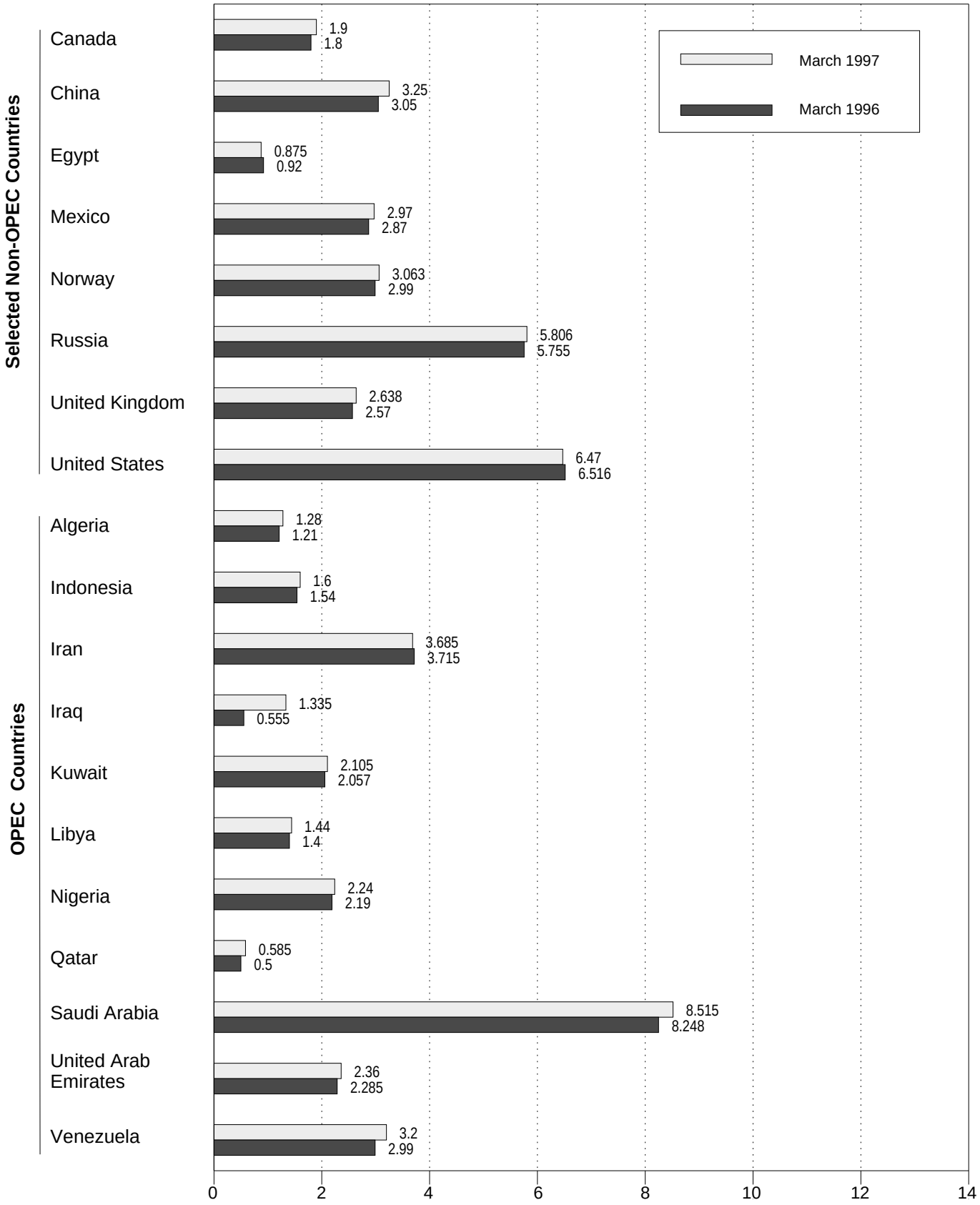
Selected Producers, Monthly



Note: OPEC is the Organization of Petroleum Exporting Countries.
Sources: Tables 10.1a and 10.1b.

Figure 10.2 Crude Oil Production by Selected Country

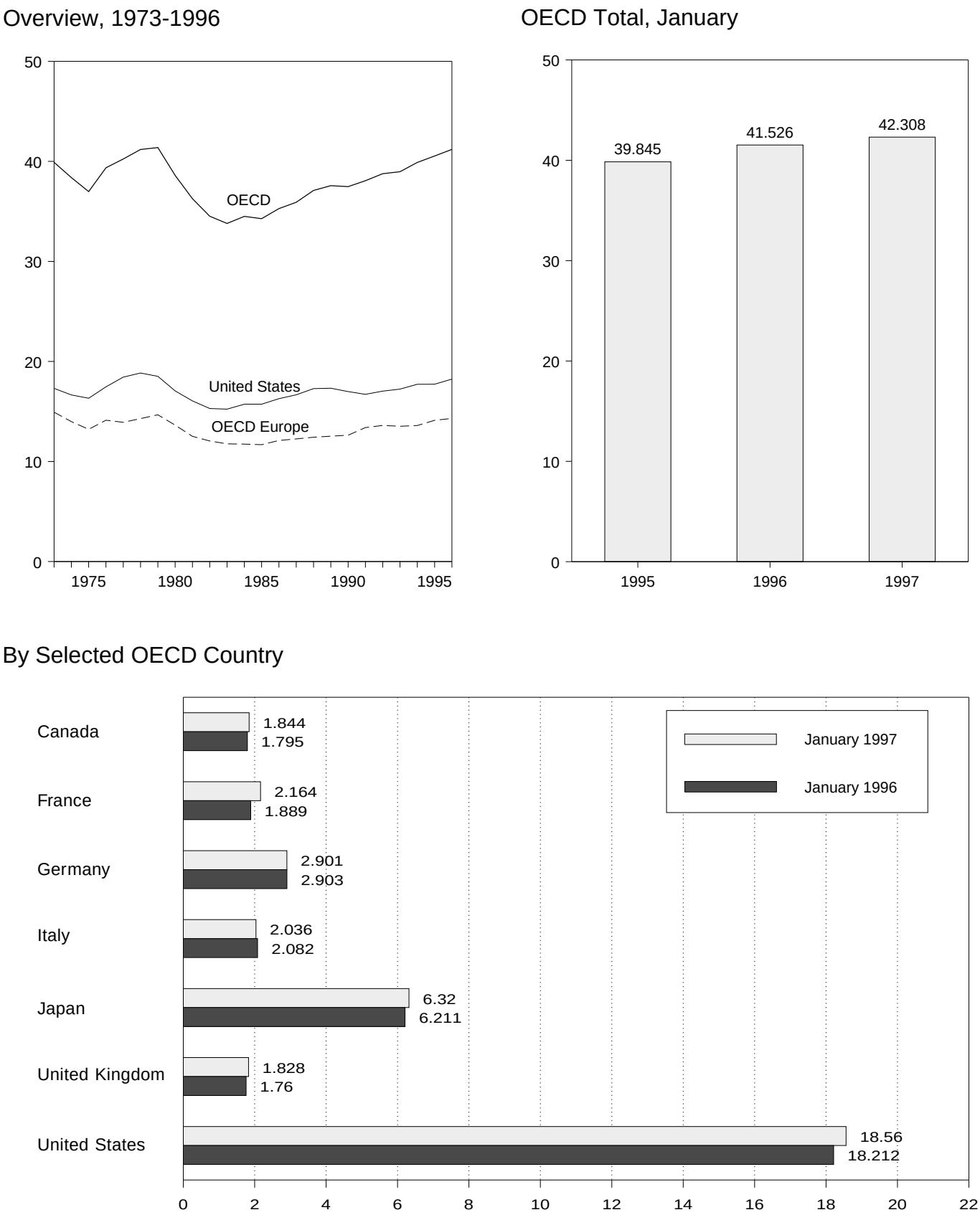
(Million Barrels per Day)



Note: OPEC is the Organization of Petroleum Exporting Countries.
Sources: Tables 10.1a and 10.1b.

Figure 10.3 Petroleum Consumption in OECD Countries

(Million Barrels per Day)



Note: OECD is the Organization for Economic Cooperation and Development.
Source: Table 10.2.

Table 10.2 Petroleum Consumption in OECD Countries

(Thousand Barrels per Day)

	Canada	France	Germany[a]	Italy	Japan	United Kingdom	United States	OECD Europe[b]	Other OECD[c]	OECD[d]
1973 Average	**1,729**	**2,601**	**3,055**	**2,068**	**4,949**	**2,341**	**17,308**	**14,925**	**988**	**39,900**
1974 Average	**1,779**	**2,447**	**2,748**	**2,004**	**4,864**	**2,210**	**16,653**	**13,988**	**1,095**	**38,379**
1975 Average	**1,779**	**2,252**	**2,650**	**1,855**	**4,621**	**1,911**	**16,322**	**13,217**	**1,041**	**36,980**
1976 Average	**1,818**	**2,420**	**2,877**	**1,971**	**4,837**	**1,892**	**17,461**	**14,124**	**1,119**	**39,358**
1977 Average	**1,850**	**2,294**	**2,865**	**1,897**	**4,880**	**1,905**	**18,431**	**13,916**	**1,160**	**40,237**
1978 Average	**1,902**	**2,408**	**2,927**	**1,952**	**4,945**	**1,938**	**18,847**	**14,290**	**1,204**	**41,187**
1979 Average	**1,971**	**2,463**	**3,003**	**2,039**	**5,050**	**1,971**	**18,513**	**14,667**	**1,178**	**41,379**
1980 Average	**1,873**	**2,256**	**2,707**	**1,934**	**4,960**	**1,725**	**17,056**	**13,634**	**1,072**	**38,595**
1981 Average	**1,768**	**2,023**	**2,449**	**1,874**	**4,848**	**1,590**	**16,058**	**12,515**	**1,080**	**36,269**
1982 Average	**1,578**	**1,880**	**2,372**	**1,781**	**4,582**	**1,590**	**15,296**	**12,053**	**1,008**	**34,517**
1983 Average	**1,448**	**1,835**	**2,324**	**1,750**	**4,395**	**1,531**	**15,231**	**11,765**	**954**	**33,793**
1984 Average	**1,472**	**1,754**	**2,322**	**1,646**	**4,576**	**1,849**	**15,726**	**11,736**	**989**	**34,500**
1985 Average	**1,504**	**1,775**	**2,338**	**1,717**	**4,384**	**1,634**	**15,726**	**11,681**	**976**	**34,271**
1986 Average	**1,506**	**1,772**	**2,498**	**1,738**	**4,439**	**1,649**	**16,281**	**12,102**	**951**	**35,279**
1987 Average	**1,548**	**1,789**	**2,424**	**1,855**	**4,484**	**1,603**	**16,665**	**12,255**	**959**	**35,911**
1988 Average	**1,693**	**1,797**	**2,422**	**1,836**	**4,752**	**1,697**	**17,283**	**12,427**	**939**	**37,093**
1989 Average	**1,733**	**1,857**	**2,280**	**1,930**	**4,983**	**1,738**	**17,325**	**12,531**	**998**	**37,570**
1990 Average	**1,690**	**1,818**	**2,382**	**1,872**	**5,140**	**1,752**	**16,988**	**12,629**	**1,027**	**37,475**
1991 Average	**1,622**	**1,935**	**2,828**	**1,863**	**5,284**	**1,801**	**16,714**	**13,391**	**1,056**	**38,067**
1992 Average	**1,643**	**1,926**	**2,843**	**1,937**	**5,446**	**1,803**	**17,033**	**13,605**	**1,041**	**38,768**
1993 Average	**1,688**	**1,875**	**2,900**	**1,852**	**5,401**	**1,815**	**17,237**	**13,523**	**1,117**	**38,966**
1994 January	1,701	1,840	2,492	1,774	5,913	1,743	18,072	12,769	1,034	39,489
February	1,795	1,966	2,994	1,907	6,524	1,920	18,337	14,269	1,159	42,085
March	1,701	1,825	3,062	1,891	6,269	1,954	17,313	13,910	1,212	40,405
April	1,590	1,850	2,900	1,816	5,294	1,809	17,489	13,502	1,161	39,035
May	1,658	1,675	2,746	1,674	4,853	1,770	17,181	12,658	1,190	37,540
June	1,690	1,811	3,000	1,683	5,132	1,880	17,815	13,581	1,232	39,451
July	1,717	1,771	2,817	1,702	5,577	1,748	17,485	12,970	1,187	38,936
August	1,786	1,736	2,905	1,699	5,595	1,747	18,117	13,290	1,140	39,928
September	1,790	1,920	3,041	1,945	5,334	1,862	17,490	14,210	1,190	40,015
October	1,731	1,844	2,884	1,873	5,363	1,853	17,719	13,689	1,086	39,588
November	1,749	1,811	2,914	2,070	5,860	1,954	17,315	14,202	1,272	40,397
December	1,819	1,961	2,820	2,070	6,421	1,818	18,319	14,218	1,254	42,031
Average	**1,727**	**1,833**	**2,879**	**1,841**	**5,674**	**1,837**	**17,718**	**13,597**	**1,176**	**39,892**
1995 January	1,673	1,949	2,711	2,031	6,031	1,766	17,219	13,767	1,156	39,845
February	1,856	1,895	2,789	2,225	6,773	1,965	18,279	14,136	1,211	42,255
March	1,697	2,002	3,186	2,081	6,331	1,983	17,484	14,805	1,274	41,591
April	1,533	1,834	2,874	1,928	5,554	1,800	17,142	13,829	1,204	39,262
May	1,706	1,763	2,942	1,917	5,027	1,789	17,293	13,586	1,295	38,908
June	1,744	1,846	2,878	1,975	4,971	1,820	18,131	13,916	1,253	40,014
July	1,719	1,933	2,833	1,949	5,087	1,748	17,147	13,645	1,195	38,793
August	1,847	1,787	2,925	1,810	5,567	1,806	18,044	13,795	1,255	40,507
September	1,821	1,888	2,952	2,052	5,378	1,829	18,026	14,184	1,259	40,667
October	1,801	1,870	2,761	2,141	5,125	1,852	17,651	14,215	1,184	39,976
November	1,814	1,957	2,913	2,286	5,884	2,021	17,979	15,010	1,198	41,885
December	1,859	2,032	2,737	2,205	6,871	1,772	18,366	14,566	1,238	42,899
Average	**1,755**	**1,896**	**2,875**	**2,048**	**5,711**	**1,845**	**17,725**	**14,120**	**1,227**	**40,537**
1996 January	R 1,795	R 1,889	R 2,903	2,082	6,211	1,760	18,212	R 14,127	R 1,182	R 41,526
February	R 1,853	R 2,193	R 3,031	2,227	6,762	1,915	18,498	R 15,222	R 1,190	R 43,524
March	R 1,694	1,990	R 2,861	2,158	6,320	1,857	18,180	R 14,370	R 1,168	R 41,733
April	R 1,629	R 1,929	R 2,741	1,921	R 5,625	R 1,851	17,837	R 13,729	1,172	R 39,991
May	R 1,704	R 1,819	R 2,861	1,842	R 5,030	R 1,841	17,857	R 13,739	R 1,128	R 39,459
June	R 1,734	1,829	R 2,827	1,868	R 4,995	R 1,735	18,049	R 13,586	R 1,144	R 39,508
July	R 1,795	R 1,987	R 2,960	2,119	R 5,387	R 1,786	18,143	R 14,311	R 1,097	R 40,734
August	R 1,862	R 1,850	R 3,039	R 1,748	R 5,452	R 1,789	18,513	R 13,949	1,127	R 40,904
September	R 1,767	R 1,941	R 3,098	2,033	R 5,242	1,873	17,605	R 14,818	R 1,038	R 40,470
October	R 1,769	1,999	R 2,844	2,121	R 5,460	R 1,905	19,103	R 14,675	R 1,144	R 42,151
November	R 1,901	1,889	R 2,960	R 2,023	R 5,992	R 1,960	18,496	R 14,729	R 1,076	R 42,192
December	R 1,735	2,031	R 2,780	2,046	R 6,529	R 1,832	18,300	R 14,447	R 1,203	R 42,215
Average	**R 1,770**	**R 1,945**	**2,908**	**2,015**	**R 5,748**	**R 1,841**	**18,234**	**R 14,304**	**R 1,139**	**R 41,195**
1997 January	1,844	2,164	2,901	2,036	6,320	1,828	18,560	14,448	1,136	42,308

[a] Through December 1990, the data for Germany are for the former West Germany only. Beginning with January 1991, the data for Germany are for the unified Germany, i.e., the former East Germany and West Germany.

[b] "OECD Europe" consists of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, and the United Kingdom.

[c] "Other OECD" consists of Australia, New Zealand, and the U.S. Territories.

[d] The Organization for Economic Cooperation and Development (OECD) consists of Canada, Japan, the United States, "OECD Europe" and "Other OECD."

R=Revised data.

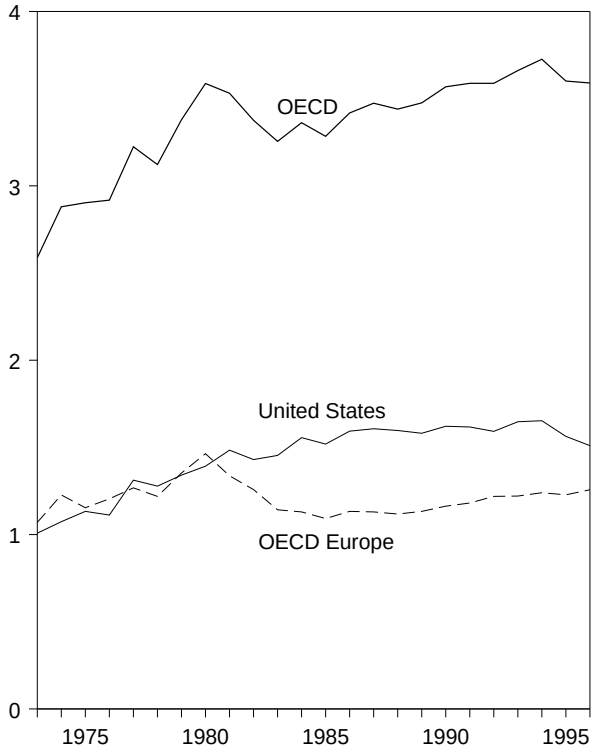
Notes: • Data through 1993 are final. Subsequent data are preliminary. • Totals may not equal sum of components due to independent rounding. • U.S. geographic coverage is the 50 States and the District of Columbia.

Sources: • **United States:** Table 3.1a. • **All Other Data: 1973-1979—**International Energy Agency (IEA), *Annual Oil and Gas Statistics of OECD Countries.* **1980 forward**—IEA, quarterly and monthly computer tapes supporting *Quarterly Oil Statistics and Energy Balances.*

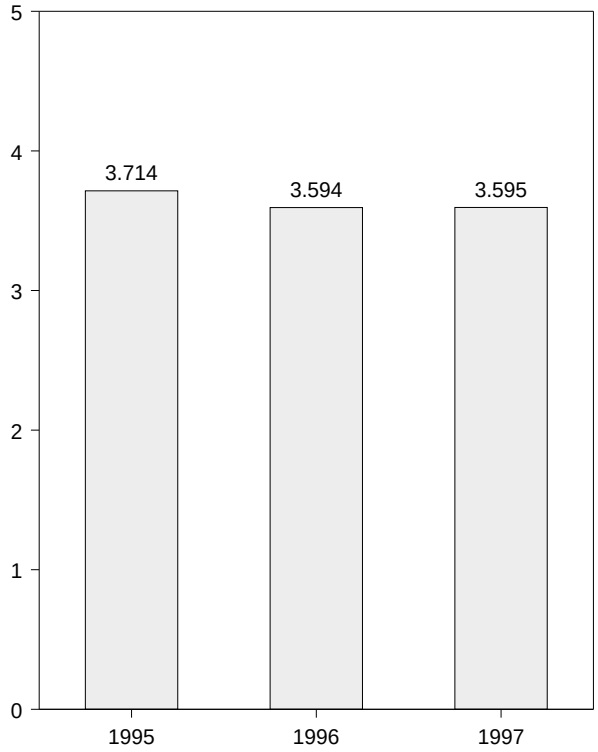
Figure 10.4 Petroleum Stocks in OECD Countries

(Billion Barrels)

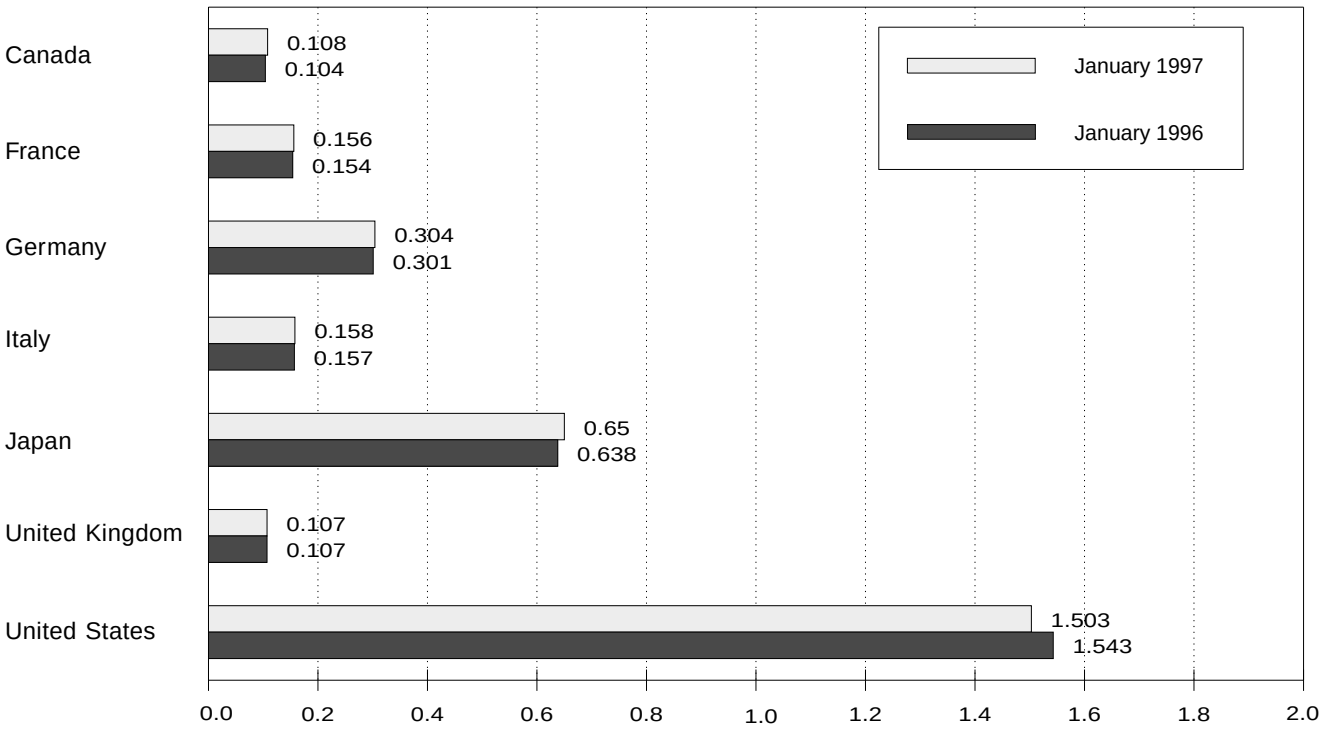
Overview, End of Year, 1973-1996



OECD Stocks, End of Month, January



By Selected Country, End of Month



Note: OECD is the Organization for Economic Cooperation and Development.
Source: Table 10.3.

Table 10.3 Petroleum Stocks in OECD Countries, End of Period

(Million Barrels)

	Canada	France	Germany[a]	Italy	Japan	United Kingdom	United States	OECD Europe[b]	Other OECD[c]	OECD[d]
1973 Year	**140**	**201**	**181**	**152**	**303**	**156**	**1,008**	**1,070**	**67**	**2,588**
1974 Year	**145**	**249**	**213**	**167**	**370**	**191**	**1,074**	**1,227**	**64**	**2,880**
1975 Year	**174**	**225**	**187**	**143**	**375**	**165**	**1,133**	**1,154**	**67**	**2,903**
1976 Year	**153**	**234**	**208**	**143**	**380**	**165**	**1,112**	**1,205**	**68**	**2,918**
1977 Year	**167**	**239**	**225**	**161**	**409**	**148**	**1,312**	**1,268**	**68**	**3,224**
1978 Year	**144**	**201**	**238**	**154**	**413**	**157**	**1,278**	**1,219**	**68**	**3,122**
1979 Year	**150**	**226**	**272**	**163**	**460**	**169**	**1,341**	**1,353**	**75**	**3,379**
1980 Year	**164**	**243**	**319**	**170**	**495**	**168**	**1,392**	**1,464**	**72**	**3,587**
1981 Year	**161**	**214**	**297**	**167**	**482**	**143**	**1,484**	**1,337**	**67**	**3,531**
1982 Year	**136**	**193**	**272**	**179**	**484**	**125**	**1,430**	**1,258**	**68**	**3,376**
1983 Year	**121**	**153**	**249**	**149**	**470**	**118**	**1,454**	**1,142**	**68**	**3,255**
1984 Year	**128**	**152**	**239**	**159**	**479**	**112**	**1,556**	**1,130**	**69**	**3,362**
1985 Year	**113**	**139**	**233**	**157**	**494**	**123**	**1,519**	**1,092**	**66**	**3,284**
1986 Year	**111**	**127**	**252**	**155**	**509**	**124**	**1,593**	**1,133**	**72**	**3,418**
1987 Year	**126**	**127**	**259**	**169**	**540**	**121**	**1,607**	**1,130**	**71**	**3,474**
1988 Year	**116**	**140**	**266**	**155**	**538**	**112**	**1,597**	**1,118**	**71**	**3,440**
1989 Year	**114**	**138**	**271**	**164**	**577**	**118**	**1,581**	**1,133**	**71**	**3,476**
1990 Year	**121**	**140**	**265**	**172**	**590**	**112**	**1,621**	**1,163**	**73**	**3,568**
1991 Year	**119**	**153**	**288**	**160**	**606**	**119**	**1,617**	**1,181**	**65**	**3,588**
1992 Year	**107**	**146**	**310**	**174**	**603**	**113**	**1,592**	**1,219**	**67**	**3,588**
1993 Year	**105**	**158**	**309**	**163**	**618**	**118**	**1,647**	**1,221**	**69**	**3,661**
1994 January	104	165	322	166	616	118	1,622	1,248	70	3,660
February	97	159	315	157	610	111	1,586	1,206	68	3,567
March	103	152	306	154	602	109	1,584	1,181	72	3,542
April	108	151	309	158	611	108	1,591	1,185	73	3,567
May	109	155	314	160	627	116	1,612	1,213	71	3,632
June	112	161	308	158	630	112	1,624	1,216	70	3,652
July	120	159	313	157	623	114	1,654	1,227	75	3,700
August	115	164	310	162	632	116	1,659	1,243	74	3,724
September	118	159	305	160	646	114	1,684	1,227	73	3,747
October	119	163	307	160	655	111	1,673	1,229	74	3,749
November	118	168	309	162	656	112	1,687	1,229	72	3,762
December	**119**	**158**	**312**	**164**	**645**	**115**	**1,653**	**1,240**	**69**	**3,726**
1995 January	121	160	314	167	631	113	1,643	1,250	69	3,714
February	121	164	316	163	613	114	1,608	1,250	64	3,655
March	124	152	304	159	619	105	1,601	1,189	68	3,601
April	122	156	306	159	626	107	1,601	1,194	71	3,614
May	119	153	304	161	635	112	1,612	1,204	72	3,641
June	128	166	301	168	640	102	1,609	1,208	73	3,658
July	130	160	304	171	651	110	1,624	1,242	77	3,724
August	119	160	303	174	654	109	1,614	1,241	72	3,699
September	120	162	301	163	658	110	1,620	1,232	77	3,707
October	123	162	304	165	664	111	1,607	1,242	72	3,706
November	123	160	297	159	663	110	1,604	1,225	72	3,685
December	**109**	**159**	**301**	**162**	**630**	**107**	**1,563**	**1,228**	**71**	**3,601**
1996 January	[R] 104	154	301	157	638	107	1,543	[R] 1,237	71	3,594
February	105	156	298	156	615	103	1,500	[R] 1,227	67	[R] 3,513
March	108	157	296	153	627	106	1,482	[R] 1,214	71	[R] 3,501
April	108	165	298	150	622	109	1,501	1,236	72	3,539
May	104	163	295	157	641	105	1,519	1,234	75	3,573
June	104	160	296	158	[R] 640	[R] 104	1,546	[R] 1,228	[R] 71	[R] 3,589
July	107	162	[R] 297	155	637	105	1,550	[R] 1,241	78	3,612
August	108	160	295	159	658	101	1,547	[R] 1,235	75	[R] 3,624
September	[R] 110	[R] 152	295	162	[R] 664	105	1,554	[R] 1,228	[R] 82	[R] 3,639
October	110	156	296	155	673	104	1,540	[R] 1,237	[R] 73	[R] 3,633
November	104	160	296	154	665	106	1,524	[R] 1,244	[R] 72	[R] 3,608
December	**104**	**158**	[R] **300**	**154**	**651**	**108**	**1,510**	[R] **1,257**	[R] **68**	[R] **3,590**
1997 January	108	156	304	158	650	107	1,503	1,266	68	3,595

[a] Through December 1990, the data for Germany are for the former West Germany only. Beginning with January 1991, the data for Germany are for the unified Germany, i.e., the former East Germany and West Germany.

[b] "OECD Europe" consists of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, and the United Kingdom.

[c] "Other OECD" consists of Australia, New Zealand, and the U.S. Territories.

[d] The Organization for Economic Cooperation and Development (OECD) consists of Canada, Japan, the United States, "OECD Europe" and "Other OECD."

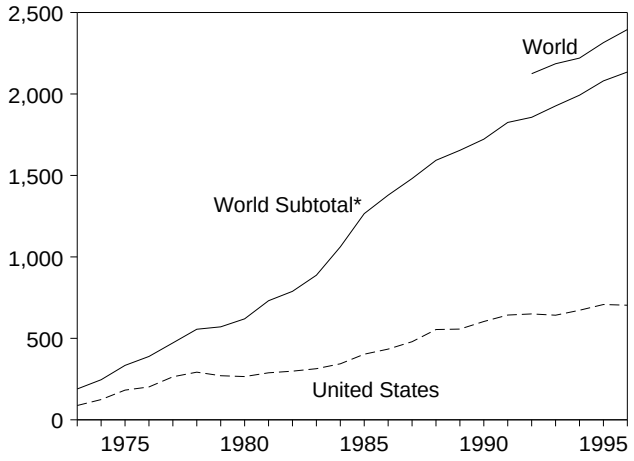
R=Revised data.

Notes: • 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 those in the United States), rail and truck cars, sea-going ships' bunkers, service stations, retail stores, and tankers at sea. • In the United States in January 1975, 1981, and 1983, numerous respondents were added to bulk terminal and pipeline surveys, thereby affecting subsequent stocks reported. New-basis end-of-year U.S. stocks, in million barrels, would have been 1,121 in 1974, 1,425 in 1980, and 1,461 in 1982. • Data through 1993 are final. Subsequent data are preliminary. • Totals may not equal sum of components due to independent rounding. • U.S. geographic coverage is the 50 States and the District of Columbia.

Figure 10.5 Nuclear Electricity Gross Generation

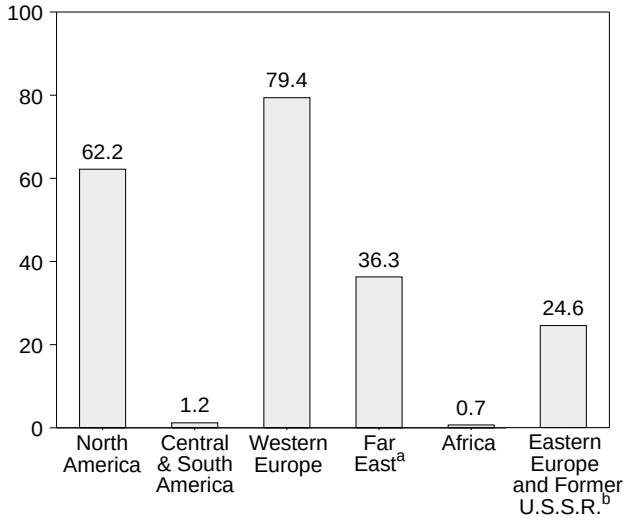
(Billion Kilowatthours)

U.S. and World, 1973-1996



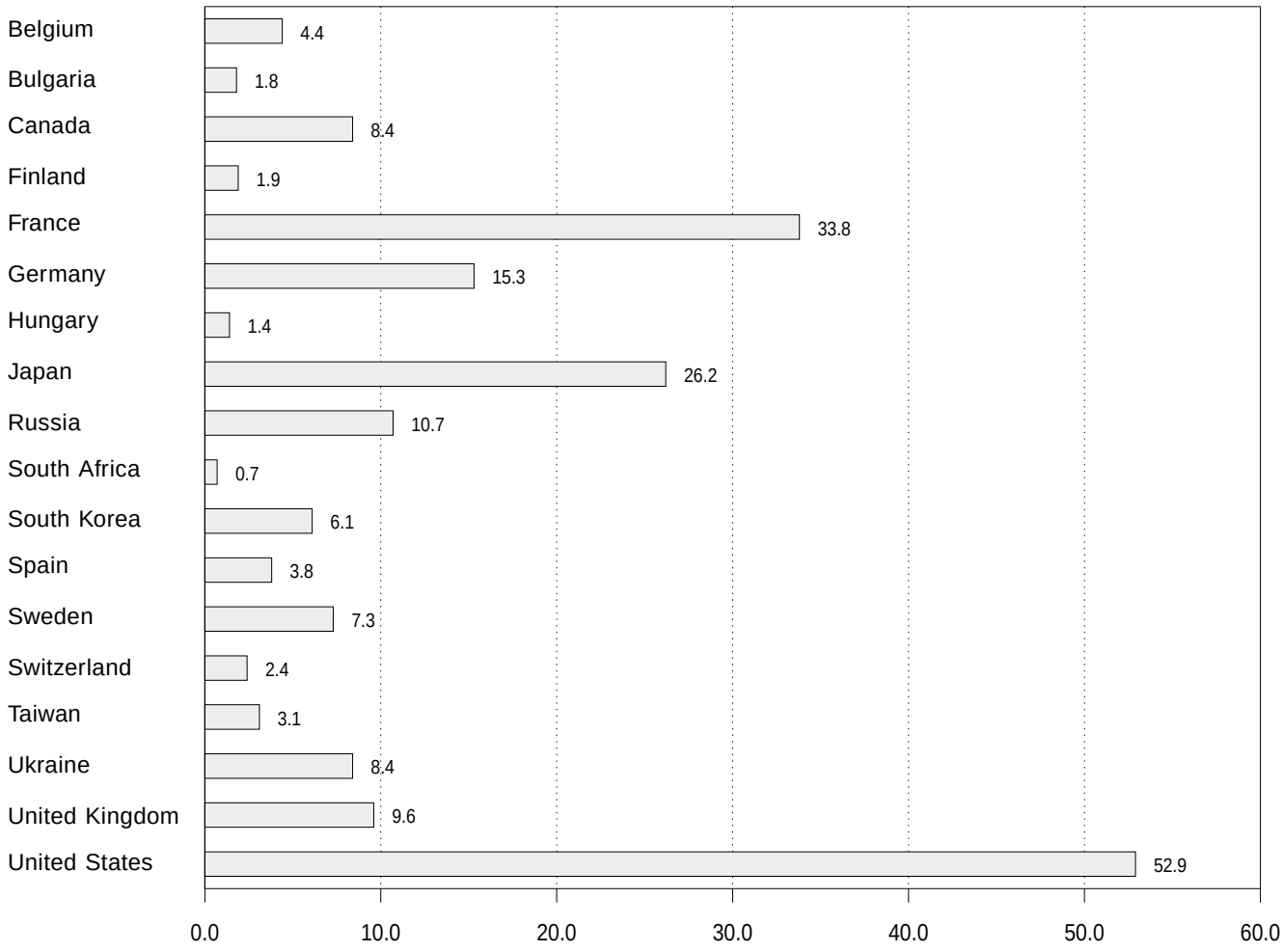
*World excluding Eastern Europe.

By Region, March 1997



[a] Total excluding China.
[b] Excludes several smaller generating countries. See Table 10.4e.

By Selected Country, March 1997



Note: Because vertical scales differ, graphs should not be compared.
Sources: Tables 10.4a-10.4e.

Table 10.4a Nuclear Electricity Gross Generation: Regions and World

(Billion Kilowatthours)

	North America	Central and South America	Western Europe	Far East	Africa	Subtotal	Eastern Europe and Former U.S.S.R.[a]	World
1973 Total	**103.1**	**–**	**73.9**	**12.3**	**–**	**189.3**	**NA**	**NA**
1974 Total	**139.7**	**1.0**	**83.9**	**21.4**	**–**	**246.0**	**NA**	**NA**
1975 Total	**195.5**	**2.5**	**111.7**	**24.4**	**–**	**334.1**	**NA**	**NA**
1976 Total	**219.8**	**2.6**	**126.2**	**40.3**	**–**	**388.9**	**NA**	**NA**
1977 Total	**290.8**	**1.6**	**148.1**	**31.5**	**–**	**472.0**	**NA**	**NA**
1978 Total	**325.4**	**2.9**	**166.9**	**60.6**	**–**	**555.9**	**NA**	**NA**
1979 Total	**309.0**	**2.7**	**184.3**	**74.7**	**–**	**570.7**	**NA**	**NA**
1980 Total	**305.8**	**2.3**	**214.2**	**97.4**	**–**	**619.8**	**NA**	**NA**
1981 Total	**331.8**	**2.8**	**293.4**	**102.9**	**–**	**730.9**	**NA**	**NA**
1982 Total	**341.2**	**1.9**	**321.8**	**123.6**	**–**	**788.5**	**NA**	**NA**
1983 Total	**366.6**	**3.6**	**377.2**	**140.1**	**–**	**887.5**	**NA**	**NA**
1984 Total	**397.6**	**6.6**	**485.4**	**167.7**	**4.2**	**1,061.5**	**NA**	**NA**
1985 Total	**465.6**	**9.1**	**582.8**	**202.0**	**5.9**	**1,265.4**	**NA**	**NA**
1986 Total	**508.8**	**5.8**	**631.5**	**223.6**	**9.3**	**1,378.9**	**NA**	**NA**
1987 Total	**560.1**	**6.2**	**648.3**	**259.5**	**6.6**	**1,480.7**	**NA**	**NA**
1988 Total	**639.7**	**5.5**	**688.1**	**248.5**	**11.1**	**1,592.8**	**NA**	**NA**
1989 Total	**640.2**	**6.6**	**732.2**	**263.4**	**11.7**	**1,654.1**	**NA**	**NA**
1990 Total	**681.3**	**9.4**	**738.6**	**284.3**	**8.9**	**1,722.5**	**NA**	**NA**
1991 Total	**733.4**	**9.2**	**769.7**	**303.3**	**9.7**	**1,825.2**	**NA**	**NA**
1992 Total	**735.2**	**8.8**	**787.8**	**315.2**	**9.9**	**1,856.9**	**E 267.5**	**E 2,124.5**
1993 Total	**744.6**	**8.1**	**820.9**	**E 345.2**	**7.7**	**E 1,926.6**	**E 259.0**	**E 2,185.6**
1994 Total	**787.3**	**8.2**	**820.2**	**E 366.7**	**10.3**	**E 1,992.6**	**E 227.8**	**E 2,220.4**
1995 January	75.7	1.1	81.9	[b]31.2	1.0	190.9	[c]22.8	[c]213.7
February	63.1	1.0	70.2	[b]29.3	.7	164.3	[c]19.6	[c]183.9
March	64.5	1.0	74.4	[b]32.1	.7	172.6	[c]20.4	[c]193.0
April	59.8	.9	69.6	[b]30.8	.7	161.8	[c]17.6	[c]179.3
May	64.2	.9	62.9	[b]31.5	.8	160.3	[c]15.1	[c]175.4
June	67.3	.9	61.5	[b]30.2	1.1	161.0	[c]13.6	[c]174.6
July	75.1	1.0	61.1	[b]36.5	1.1	174.8	[c]14.2	[c]189.0
August	E 75.6	.6	E 62.4	[b]39.3	1.2	179.0	[c]14.9	[c]193.9
September	E 68.6	.9	E 63.9	[b]32.4	1.3	167.2	[c]13.7	[c]180.8
October	E 66.0	.4	E 71.5	[b]32.5	1.2	171.6	[c]16.4	[c]187.9
November	E 64.2	.5	E 75.4	[b]32.6	1.1	173.7	[c]18.3	[c]192.0
December	E 72.0	.5	E 81.0	[b]35.6	1.0	190.1	[c]23.1	[c]213.2
Total	**E 816.1**	**9.6**	**E 835.7**	**E 407.0**	**11.9**	**E 2,080.2**	**E 234.9**	**E 2,315.1**
1996 January	E 76.0	1.0	E 83.4	[b]33.4	.7	194.5	[c]24.6	[c]219.1
February	E 69.0	.8	E 76.2	[b]30.5	.7	177.1	[c]23.3	[c]200.5
March	E 69.0	.8	E 77.6	[b]35.0	1.1	183.5	[c]24.7	[c]208.1
April	61.4	.7	E 73.2	[b]33.1	1.1	169.4	[c]20.2	[c]189.6
May	64.7	.7	E 68.1	[b]33.3	1.1	168.0	[c]17.2	[c]185.1
June	66.7	.7	E 63.7	[b]34.2	.8	166.0	[c]17.6	[c]183.6
July	72.0	.5	E 65.9	[b]39.2	.6	178.2	[c]16.7	[c]194.9
August	71.5	.7	E 65.7	[b]39.6	1.3	178.8	[c]15.4	[c]194.2
September	63.6	.8	E 69.3	[b]32.7	1.3	167.7	[c]14.9	[c]182.6
October	61.2	1.0	E 74.4	[b]31.3	1.4	169.3	[c]17.4	[c]186.7
November	62.4	1.1	E 77.5	[b]33.0	1.4	175.4	[c]19.9	[c]195.3
December	E 69.0	1.2	E 84.3	[b]36.9	E 1.1	E 192.5	[c]23.3	[c]215.8
Total	**E 806.4**	**9.8**	**E 879.5**	**E 426.4**	**E 12.5**	**E 2,134.6**	**E 260.6**	**E 2,395.3**
1997 January	E 70.8	.9	83.3	[b]36.3	1.1	192.4	[c]25.6	[c]218.0
February	62.1	.9	74.9	[b]32.6	.8	171.4	[c]23.9	[c]195.3
March	62.2	1.2	E 79.4	[b]36.3	.7	179.7	[c]24.6	[c]204.3
3-Month Total	**E 195.1**	**3.0**	**E 237.6**	**[b]105.2**	**2.6**	**543.5**	**[c]74.1**	**[c]617.6**
1996 3-Month Total	**E 213.9**	**2.6**	**E 237.3**	**[b]98.8**	**2.5**	**555.1**	**[c]72.6**	**[c]627.7**
1995 3-Month Total	**203.2**	**3.1**	**226.5**	**[b]92.6**	**2.4**	**527.9**	**[c]62.9**	**[c]590.7**

[a] See Table 10.4e for country-specific estimated annual generation and available monthly generation for Eastern Europe and Former U.S.S.R..

[b] Total excluding China.

[c] Sum of available data only.

NA=Not available. – =Not applicable. E=Estimate.

Notes: • Net figures are generally less than gross figures by about 5 percent, the difference being the energy consumed by the generating plants themselves. • Monthly data may not sum to annual totals due to independent rounding and because precommercial generation is included in some annual totals but not in the monthly data. • Data for regions may not sum to totals due to independent rounding.

Source: Based on data from *Nucleonics Week,* a copyrighted publication of The McGraw-Hill Publishing Companies, Inc. Used with permission.

Table 10.4b Nuclear Electricity Gross Generation: North, Central, and South America

(Billion Kilowatthours)

	Canada	Mexico	United States	North America	Argentina	Brazil	Central and South America
1973 Total	**15.3**	**–**	**87.8**	**103.1**	**–**	**–**	**–**
1974 Total	**15.4**	**–**	**124.3**	**139.7**	**1.0**	**–**	**1.0**
1975 Total	**13.2**	**–**	**182.3**	**195.5**	**2.5**	**–**	**2.5**
1976 Total	**18.0**	**–**	**201.8**	**219.8**	**2.6**	**–**	**2.6**
1977 Total	**26.6**	**–**	**264.2**	**290.8**	**1.6**	**–**	**1.6**
1978 Total	**33.0**	**–**	**292.4**	**325.4**	**2.9**	**–**	**2.9**
1979 Total	**38.4**	**–**	**270.6**	**309.0**	**2.7**	**–**	**2.7**
1980 Total	**40.4**	**–**	**265.4**	**305.8**	**2.3**	**–**	**2.3**
1981 Total	**43.3**	**–**	**288.5**	**331.8**	**2.8**	**–**	**2.8**
1982 Total	**42.6**	**–**	**298.6**	**341.2**	**1.9**	**0.1**	**1.9**
1983 Total	**53.0**	**–**	**313.6**	**366.6**	**3.4**	**.2**	**3.6**
1984 Total	**53.8**	**–**	**343.8**	**397.6**	**4.5**	**2.1**	**6.6**
1985 Total	**62.9**	**–**	**402.7**	**465.6**	**5.8**	**3.4**	**9.1**
1986 Total	**74.6**	**–**	**434.1**	**508.8**	**5.7**	**.1**	**5.8**
1987 Total	**80.6**	**–**	**479.5**	**560.1**	**5.2**	**1.0**	**6.2**
1988 Total	**85.6**	**–**	**554.1**	**639.7**	**5.1**	**.3**	**5.5**
1989 Total	**83.2**	**–**	**557.0**	**640.2**	**5.0**	**1.6**	**6.6**
1990 Total	**75.8**	**2.1**	**603.4**	**681.3**	**7.4**	**2.0**	**9.4**
1991 Total	**86.1**	**4.2**	**643.0**	**733.4**	**7.7**	**1.4**	**9.2**
1992 Total	**81.3**	**3.9**	**650.0**	**735.2**	**7.1**	**1.8**	**8.8**
1993 Total	**97.6**	**4.9**	**642.0**	**744.6**	**7.7**	**.4**	**8.1**
1994 Total	**110.7**	**4.2**	**672.4**	**787.3**	**8.2**	**.0**	**8.2**
1995 January	9.0	.3	66.4	75.7	.7	.4	1.1
February	8.4	.4	54.3	63.1	.6	.3	1.0
March	9.5	.4	54.6	64.5	.7	.3	1.0
April	7.6	.6	51.7	59.8	.7	.2	.9
May	6.7	.5	57.1	64.2	.7	.2	.9
June	7.8	.5	59.0	67.3	.7	.2	.9
July	9.1	.9	65.1	75.1	.7	.2	1.0
August	9.5	.8	65.3	E 75.6	.6	.1	.6
September	8.6	.8	59.3	E 68.6	.7	.2	.9
October	8.1	.9	56.9	E 66.0	.3	.1	.4
November	8.0	.8	55.4	E 64.2	.2	.2	.5
December	8.4	.9	62.7	E 72.0	.3	.2	.5
Total	E **100.4**	**7.9**	E **707.7**	E **816.1**	**7.1**	**2.5**	**9.6**
1996 January	9.3	1.0	E 65.7	E 76.0	.7	.3	1.0
February	9.3	.9	E 58.8	E 69.0	.6	.2	.8
March	10.2	.9	E 57.8	E 69.0	.7	.1	.8
April	8.1	.9	52.4	61.4	.7	.0	.7
May	6.1	.9	57.7	64.7	.7	.0	.7
June	5.9	.5	60.2	66.7	.7	.0	.7
July	7.7	.4	63.9	72.0	.5	.0	.5
August	8.0	.3	63.2	71.5	.6	.1	.7
September	6.7	.5	56.4	63.6	.3	.4	.8
October	7.6	.5	53.1	61.2	.5	.4	1.0
November	7.8	.5	54.1	62.4	.7	.4	1.1
December	8.5	.7	E 59.8	E 69.0	.7	.4	1.2
Total	E **95.2**	**7.9**	E **703.3**	E **806.4**	**7.4**	**2.4**	**9.8**
1997 January	8.3	1.0	E 61.6	E 70.8	.7	.3	.9
February	8.3	.8	52.9	62.1	.7	.3	.9
March	8.4	1.0	52.9	62.2	.7	.4	1.2
3-Month Total	**24.9**	**2.8**	E **167.4**	E **195.1**	**2.1**	**1.0**	**3.0**
1996 3-Month Total	**28.7**	**2.8**	E **182.4**	E **213.9**	**2.0**	**.6**	**2.6**
1995 3-Month Total	**26.8**	**1.2**	**175.2**	**203.2**	**2.1**	**1.0**	**3.1**

– =Not applicable. E=Estimate. (s)=Less than 0.05 billion kilowatthours.

Notes: • Net figures are generally less than gross figures by about 5 percent, the difference being the energy consumed by the generating plants themselves. • Monthly data may not sum to annual totals due to independent rounding and because precommercial generation is included in some annual totals but not in the monthly data. • Data for countries may not sum to regional totals due to independent rounding. • U.S. geographic coverage is the 50 States and the District of Columbia.

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Table 10.4c Nuclear Electricity Gross Generation: Western Europe

(Billion Kilowatthours)

	Belgium	Finland	France	Germany[a]	Italy[b]	Nether-lands	Slovenia	Spain	Sweden	Switzer-land	United Kingdom[c]	Western Europe
1973 Total	**0.0**	**–**	**14.7**	**11.9**	**3.1**	**1.1**	**–**	**6.5**	**2.1**	**6.2**	**28.2**	**73.9**
1974 Total	**.1**	**–**	**14.7**	**12.0**	**3.4**	**3.3**	**–**	**7.2**	**2.3**	**7.0**	**33.8**	**83.9**
1975 Total	**6.8**	**–**	**18.3**	**21.7**	**3.8**	**3.3**	**–**	**7.5**	**12.0**	**7.7**	**30.5**	**111.7**
1976 Total	**10.0**	**–**	**15.8**	**24.5**	**3.8**	**3.9**	**–**	**7.6**	**16.0**	**7.9**	**36.8**	**126.2**
1977 Total	**11.9**	**2.7**	**17.9**	**36.0**	**3.4**	**3.7**	**–**	**6.5**	**19.9**	**8.1**	**38.1**	**148.1**
1978 Total	**12.5**	**3.3**	**30.6**	**35.7**	**4.5**	**4.1**	**–**	**7.6**	**23.8**	**8.3**	**36.6**	**166.9**
1979 Total	**11.4**	**6.7**	**39.9**	**42.2**	**2.6**	**3.5**	**–**	**6.7**	**21.0**	**11.8**	**38.5**	**184.3**
1980 Total	**12.5**	**7.0**	**61.2**	**43.7**	**2.2**	**4.2**	**–**	**5.2**	**26.7**	**14.3**	**37.2**	**214.2**
1981 Total	**12.8**	**14.5**	**105.2**	**53.4**	**2.7**	**3.7**	**–**	**9.4**	**37.7**	**15.2**	**38.9**	**293.4**
1982 Total	**15.6**	**16.5**	**108.9**	**63.4**	**6.8**	**3.9**	**–**	**8.8**	**38.8**	**15.0**	**44.1**	**321.8**
1983 Total	**24.1**	**17.4**	**144.2**	**65.8**	**5.8**	**3.6**	**NA**	**10.7**	**40.4**	**15.5**	**49.6**	**[d]377.2**
1984 Total	**27.7**	**18.5**	**191.2**	**92.6**	**6.9**	**3.8**	**NA**	**23.1**	**51.3**	**16.3**	**54.1**	**[d]485.4**
1985 Total	**34.5**	**18.8**	**224.0**	**125.8**	**7.0**	**3.9**	**NA**	**28.0**	**58.6**	**22.4**	**59.7**	**[d]582.8**
1986 Total	**38.6**	**18.8**	**254.3**	**118.9**	**8.7**	**4.2**	**NA**	**37.5**	**69.9**	**22.5**	**58.2**	**[d]631.5**
1987 Total	**41.9**	**19.4**	**265.5**	**130.2**	**.2**	**3.6**	**NA**	**41.2**	**67.2**	**23.0**	**56.2**	**[d]648.3**
1988 Total	**43.1**	**19.3**	**274.9**	**145.2**	**.0**	**3.7**	**NA**	**50.4**	**69.4**	**22.7**	**59.4**	**[d]688.1**
1989 Total	**41.2**	**18.8**	**302.5**	**149.6**	**.0**	**4.0**	**NA**	**56.1**	**65.6**	**22.8**	**71.6**	**[d]732.2**
1990 Total	**42.7**	**18.9**	**314.1**	**147.2**	**.0**	**3.4**	**NA**	**54.3**	**68.2**	**23.6**	**66.1**	**[d]738.6**
1991 Total	**42.9**	**19.2**	**331.4**	**147.3**	**.0**	**3.3**	**NA**	**55.6**	**76.8**	**22.9**	**70.4**	**[d]769.7**
1992 Total	**43.5**	**19.0**	**337.6**	**158.8**	**.0**	**3.8**	**[E]4.0**	**55.8**	**63.5**	**23.4**	**78.5**	**787.8**
1993 Total	**41.9**	**19.6**	**366.7**	**153.5**	**.0**	**3.9**	**4.0**	**56.1**	**61.4**	**23.3**	**90.4**	**820.9**
1994 Total	**40.6**	**19.1**	**359.1**	**151.1**	**.0**	**4.0**	**4.6**	**55.1**	**72.8**	**24.2**	**89.5**	**820.2**
1995 January	4.2	1.6	38.7	15.2	.0	.3	.5	5.4	7.2	2.4	6.4	81.9
February	3.7	1.5	31.7	13.1	.0	(s)	.4	4.6	6.2	2.2	6.8	70.2
March	3.6	1.8	34.4	12.4	.0	.1	.5	4.6	6.6	2.4	8.0	74.4
April	4.0	1.7	30.6	12.2	.0	.4	.3	4.3	6.5	2.0	7.5	69.6
May	3.4	1.3	28.3	10.2	.0	.4	.0	5.0	5.6	2.1	6.5	62.9
June	3.1	1.6	27.1	11.3	.0	.4	.4	4.7	3.5	1.6	7.9	61.5
July	2.5	1.7	28.2	11.2	.0	.4	.5	4.3	4.0	1.6	[E]6.8	[E]61.1
August	2.5	1.4	29.0	12.1	.0	.4	.4	4.3	4.5	1.3	[E]6.4	[E]62.4
September	2.7	1.6	27.9	12.5	.0	.4	.4	4.0	5.2	2.0	[E]7.2	[E]63.9
October	3.7	1.6	31.1	13.9	.0	.4	.5	4.1	6.6	2.4	[E]7.2	[E]71.5
November	3.8	1.4	34.4	14.8	.0	.4	.5	3.8	6.8	2.3	[E]7.2	[E]75.4
December	4.2	1.7	36.2	15.2	.0	.4	.5	5.4	7.3	2.4	[E]7.7	[E]81.0
Total	**41.4**	**18.9**	**377.6**	**154.3**	**.0**	**4.0**	**4.8**	**54.5**	**69.9**	**24.8**	**[E]85.5**	**[E]835.7**
1996 January	4.3	1.8	38.5	15.0	.0	.4	.5	5.4	7.4	2.4	[E]7.7	[E]83.4
February	4.1	1.7	35.5	12.7	.0	.1	.5	4.9	7.2	2.3	[E]7.4	[E]76.2
March	3.9	1.8	35.8	13.1	.0	.2	.5	4.9	7.5	2.4	[E]7.5	[E]77.6
April	3.4	1.7	33.3	12.6	.0	.4	.5	4.6	7.3	2.3	[E]7.0	[E]73.2
May	3.4	1.4	30.6	12.4	.0	.4	.3	5.3	5.0	2.3	[E]7.0	[E]68.1
June	3.2	1.4	27.7	12.0	.0	.4	.0	4.6	5.8	1.6	[E]7.0	[E]63.7
July	3.3	1.6	30.0	12.6	.0	.4	.1	4.6	4.7	1.6	[E]7.0	[E]65.9
August	3.1	1.4	29.9	13.1	.0	.4	.5	4.6	4.4	1.2	[E]7.0	[E]65.7
September	3.5	1.4	30.8	13.3	.0	.4	.5	4.6	5.7	2.0	[E]7.1	[E]69.3
October	3.3	1.7	34.0	13.8	.0	.4	.5	5.1	7.0	2.2	[E]6.6	[E]74.4
November	4.0	1.8	34.8	15.1	.0	.4	.5	4.8	6.9	2.3	[E]7.0	[E]77.5
December	3.7	1.8	36.3	15.9	.0	.4	[E].5	5.5	7.4	2.4	[E]10.4	[E]84.3
Total	**43.3**	**19.5**	**397.0**	**161.7**	**.0**	**4.2**	**[E]4.6**	**59.1**	**76.2**	**25.0**	**[E]88.8**	**[E]879.5**
1997 January	4.4	1.8	37.1	16.2	.0	.3	.4	5.2	7.1	2.4	8.3	83.3
February	4.0	1.7	32.4	14.2	.0	.1	.4	4.6	6.8	2.2	8.6	74.9
March	4.4	1.9	33.8	15.3	.0	.4	.5	3.8	[E]7.3	2.4	[E]9.6	[E]79.4
3-Month Total	**12.9**	**5.3**	**103.2**	**45.7**	**.0**	**.8**	**1.3**	**13.7**	**[E]21.2**	**7.0**	**[E]26.5**	**[E]237.6**
1996 3-Month Total	**12.3**	**5.3**	**109.8**	**40.9**	**.0**	**.7**	**1.4**	**15.3**	**22.0**	**7.1**	**[E]22.6**	**[E]237.3**
1995 3-Month Total	**11.5**	**4.9**	**104.7**	**40.7**	**.0**	**.5**	**1.4**	**14.6**	**20.0**	**7.0**	**21.2**	**226.5**

[a] Through December 1990, the data for Germany are for the former West Germany only. Beginning with January 1991, the data for Germany are for the unified Germany, i.e., the former East Germany and West Germany.

[b] In 1987, Italy's citizens voted for a nuclear power moratorium, which shut down their nuclear power plants indefinitely.

[c] Monthly data for the United Kingdom are totals for 4- or 5-week reporting periods, not calendar months.

[d] Sum of available data only

NA=Not available. – =Not applicable. E=Estimate. (s)=Less than 0.05 billion kilowatthours.

Notes: • Net figures are generally less than gross figures by about 5 percent, the difference being the energy consumed by the generating plants themselves. • Monthly data may not sum to annual totals due to independent rounding and because precommercial generation is included in some annual totals but not in the monthly data. • Data for countries may not sum to regional totals due to independent rounding.

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Table 10.4d Nuclear Electricity Gross Generation: Far East and Africa

(Billion Kilowatthours)

	China[a]	India	Japan	Pakistan	South Korea	Taiwan	Far East	South Africa[b]
1973 Total	–	**2.5**	**9.4**	**0.5**	–	–	**12.3**	–
1974 Total	–	**1.9**	**18.9**	**.6**	–	–	**21.4**	–
1975 Total	–	**2.5**	**21.3**	**.5**	–	–	**24.4**	–
1976 Total	–	**3.2**	**36.6**	**.5**	–	–	**40.3**	–
1977 Total	–	**2.8**	**28.2**	**.3**	**0.1**	**0.1**	**31.5**	–
1978 Total	–	**2.3**	**53.1**	**.2**	**2.3**	**2.7**	**60.6**	–
1979 Total	–	**3.2**	**62.0**	**(s)**	**3.2**	**6.3**	**74.7**	–
1980 Total	–	**2.9**	**82.8**	**.1**	**3.5**	**8.2**	**97.4**	–
1981 Total	–	**3.1**	**86.0**	**.2**	**2.9**	**10.7**	**102.9**	–
1982 Total	–	**2.2**	**104.5**	**.1**	**3.8**	**13.1**	**123.6**	–
1983 Total	–	**2.9**	**109.1**	**.2**	**9.0**	**18.9**	**140.1**	–
1984 Total	–	**4.1**	**127.2**	**.3**	**11.8**	**24.3**	**167.7**	**4.2**
1985 Total	–	**4.5**	**152.0**	**.3**	**16.5**	**28.7**	**202.0**	**5.9**
1986 Total	–	**5.1**	**164.8**	**.5**	**26.1**	**26.9**	**223.6**	**9.3**
1987 Total	–	**5.5**	**182.8**	**.3**	**37.8**	**33.1**	**259.5**	**6.6**
1988 Total	–	**6.1**	**173.6**	**.2**	**38.7**	**29.9**	**248.5**	**11.1**
1989 Total	–	**4.0**	**183.7**	**.1**	**47.2**	**28.3**	**263.4**	**11.7**
1990 Total	–	**6.3**	**191.9**	**.4**	**52.8**	**32.9**	**284.3**	**8.9**
1991 Total	–	**5.4**	**205.8**	**.4**	**56.3**	**35.3**	**303.3**	**9.7**
1992 Total	–	**6.3**	**218.0**	**.6**	**56.4**	**33.8**	**315.2**	**9.9**
1993 Total	[E] **2.6**	**6.2**	**243.5**	**.4**	**58.1**	**34.3**	[E] **345.2**	**7.7**
1994 Total	[E] **14.2**	**5.0**	**253.8**	**.6**	**58.3**	**34.8**	[E] **366.7**	**10.3**
1995 January	NA	.7	23.1	(s)	4.8	2.5	[c]31.2	1.0
February	NA	.5	21.5	(s)	4.9	2.3	[c]29.3	.7
March	NA	.6	23.6	(s)	5.1	2.7	[c]32.1	.7
April	NA	.6	22.6	(s)	4.9	2.7	[c]30.8	.7
May	NA	.7	22.1	(s)	5.4	3.2	[c]31.5	.8
June	NA	.7	20.6	.1	5.5	3.4	[c]30.2	1.1
July	NA	[E] .8	26.3	.1	6.1	3.3	[c]36.5	1.1
August	NA	[E] .8	29.0	.1	5.9	3.4	[c]39.3	1.2
September	NA	.8	23.9	(s)	4.8	2.8	[c]32.4	1.3
October	NA	.5	23.8	.1	5.1	3.0	[c]32.5	1.2
November	NA	.5	23.5	(s)	5.5	3.0	[c]32.6	1.1
December	NA	.6	26.1	.1	5.9	2.9	[c]35.6	1.0
Total	[E] **13.0**	[E] **8.0**	**286.1**	**.5**	**64.0**	**35.3**	[E] **407.0**	**11.9**
1996 January	NA	.6	24.5	(s)	5.2	3.0	[c]33.4	.7
February	NA	.7	22.2	(s)	4.8	2.7	[c]30.5	.7
March	NA	.8	25.1	(s)	6.2	2.9	[c]35.0	1.1
April	NA	.8	24.1	(s)	5.6	2.5	[c]33.1	1.1
May	NA	.6	23.5	(s)	5.8	3.3	[c]33.3	1.1
June	NA	.7	23.7	(s)	6.5	3.2	[c]34.2	.8
July	NA	.4	27.9	(s)	7.3	3.7	[c]39.2	.6
August	NA	.4	29.0	(s)	6.6	3.5	[c]39.6	1.3
September	NA	.7	22.4	(s)	6.3	3.2	[c]32.7	1.3
October	NA	.9	21.1	(s)	5.8	3.4	[c]31.3	1.4
November	NA	.8	23.0	(s)	5.9	3.3	[c]33.0	1.4
December	NA	.9	26.7	.0	6.4	3.0	[c]36.9	[E] 1.1
Total	[E] **14.3**	**8.3**	**293.2**	**.4**	**72.5**	**37.8**	[E] **426.4**	[E] **12.5**
1997 January	NA	1.0	26.1	.0	6.1	3.1	[c]36.3	1.1
February	NA	.9	22.7	(s)	6.1	2.9	[c]32.6	.8
March	NA	.9	26.2	(s)	[E] 6.1	3.1	[c]36.3	.7
3-Month Total	**NA**	**2.8**	**75.1**	**.1**	[E] **18.3**	**9.0**	[c]**105.2**	**2.6**
1996 3-Month Total	**NA**	**2.2**	**71.8**	**.1**	**16.1**	**8.7**	[c]**98.8**	**2.5**
1995 3-Month Total	**NA**	**1.8**	**68.2**	**.1**	**14.8**	**7.6**	[c]**92.6**	**2.4**

[a] The total gross generation estimate for 1993-1995 for China is calculated as 5 percent more than the annual net nuclear generation reported by the International Atomic Energy Agency (IAEA) and is published in the Energy Information Administration annual report, *Nuclear Power Generation and Fuel Cycle Report 1996,* October 1996, Table 1.

[b] South Africa comprises all of Africa's nuclear electricity generation.

[c] Total excluding China.

NA=Not available. – =Not applicable. E=Estimate. (s)=Less than 0.05 billion kilowatthours.

Notes: • The Philippines has a nuclear generating unit under construction. Its earliest initial commercial operation is projected to be in 1996. • Net figures are generally less than gross figures by about 5 percent, the difference being the energy consumed by the generating plants themselves. • Monthly data may not sum to annual totals due to independent rounding and because precommercial generation is included in some annual totals but not in the monthly data. • Data for countries may not sum to regional totals due to independent rounding.

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Table 10.4e Nuclear Electricity Gross Generation: Eastern Europe and Former U.S.S.R.

(Billion Kilowatthours)

	Armenia[a]	Bulgaria	Czech Republic[b]	Hungary	Kazakstan[b]	Lithuania[b]	Romania[c]	Russia	Slovakia[b]	Ukraine	Eastern Europe and Former U.S.S.R.[d]
1973 Total	–	–	–	–	NA	–	–	NA	NA	–	NA
1974 Total	–	NA	–	–	NA	–	–	NA	NA	–	NA
1975 Total	–	NA	–	–	NA	–	–	NA	NA	–	NA
1976 Total	–	NA	–	–	NA	–	–	NA	NA	–	NA
1977 Total	–	NA	–	–	NA	–	–	NA	NA	–	NA
1978 Total	–	NA	–	–	NA	–	–	NA	NA	NA	NA
1979 Total	–	NA	–	–	NA	–	–	NA	NA	NA	NA
1980 Total	–	NA	–	–	NA	–	–	NA	NA	NA	NA
1981 Total	–	NA	–	–	NA	–	–	NA	NA	NA	NA
1982 Total	–	NA	–	–	NA	–	–	NA	NA	NA	NA
1983 Total	–	NA	–	NA	NA	–	–	NA	NA	NA	NA
1984 Total	–	NA	–	NA	NA	–	–	NA	NA	NA	NA
1985 Total	–	NA	NA	NA	NA	NA	–	NA	NA	NA	NA
1986 Total	–	NA	NA	NA	NA	NA	–	NA	NA	NA	NA
1987 Total	–	NA	NA	NA	NA	NA	–	NA	NA	NA	NA
1988 Total	–	NA	NA	NA	NA	NA	–	NA	NA	NA	NA
1989 Total	–	NA	NA	NA	NA	NA	–	NA	NA	NA	NA
1990 Total	–	NA	NA	NA	NA	NA	–	NA	NA	NA	NA
1991 Total	–	NA	NA	NA	NA	NA	–	NA	NA	NA	NA
1992 Total	–	E 12.2	E 12.9	E 13.8	E .5	E 16.4	–	E 125.6	E 11.7	E 74.6	E 267.5
1993 Total	–	14.0	E 13.2	13.8	E .4	E 12.9	–	120.4	E 11.6	E 72.7	E 259.0
1994 Total	–	14.9	E 12.7	14.0	E .4	E 7.0	–	97.7	E 12.7	68.4	E 227.8
1995 January	–	2.2	NA	1.4	NA	NA	–	10.7	NA	8.5	e 22.8
February	–	2.1	NA	1.1	NA	NA	–	8.9	NA	7.5	e 19.6
March	–	1.9	NA	1.3	NA	.9	–	9.0	NA	7.3	e 20.4
April	–	1.5	NA	1.1	NA	.7	–	7.8	NA	6.5	e 17.6
May	–	1.3	NA	1.1	NA	.8	–	7.2	NA	4.8	e 15.1
June	–	.9	NA	1.0	NA	.7	–	6.6	NA	4.4	e 13.6
July	–	1.0	NA	1.1	NA	.8	–	7.4	NA	4.0	e 14.2
August	–	.8	NA	1.0	NA	1.0	–	7.2	NA	4.8	e 14.9
September	–	1.0	NA	1.1	NA	.9	–	6.5	NA	4.1	e 13.7
October	–	1.2	NA	1.3	NA	1.0	–	7.8	NA	5.1	e 16.4
November	NA	1.3	NA	1.2	NA	1.3	–	8.9	NA	5.7	e 18.3
December	NA	1.9	NA	1.4	NA	1.7	–	10.5	NA	7.7	e 23.1
Total	**NA**	**17.2**	E 12.8	**14.0**	E .4	E 9.7	–	**98.3**	E 12.0	**70.4**	E 234.9
1996 January	NA	2.4	NA	1.4	NA	1.6	–	10.4	NA	8.8	e 24.6
February	NA	2.1	NA	1.3	NA	1.6	–	10.3	NA	8.0	e 23.3
March	NA	2.3	NA	1.3	NA	1.6	–	11.2	NA	8.3	e 24.7
April	NA	1.8	NA	1.1	NA	1.0	–	9.1	NA	7.2	e 20.2
May	NA	1.0	NA	1.2	NA	.8	–	8.3	NA	5.8	e 17.2
June	NA	1.8	NA	1.1	NA	1.0	–	7.7	NA	6.0	e 17.6
July	NA	.9	NA	1.1	NA	.9	NA	7.9	NA	6.0	e 16.7
August	NA	1.0	NA	1.0	NA	.8	NA	8.4	NA	4.3	e 15.4
September	NA	1.0	NA	.9	NA	.8	NA	7.3	NA	4.9	e 14.9
October	NA	1.3	NA	1.2	NA	1.0	NA	8.3	NA	5.5	e 17.4
November	NA	1.3	NA	1.3	NA	1.0	NA	9.2	NA	7.0	e 19.9
December	NA	1.7	NA	1.4	NA	1.5	NA	10.5	NA	8.3	e 23.3
Total	**NA**	**18.7**	E 13.5	**14.2**	E .1	E 13.6	E 1.0	**108.8**	E 11.8	**80.0**	E 260.6
1997 January	.2	1.7	NA	1.4	NA	1.5	NA	11.2	1.2	8.4	e 25.6
February	.2	1.7	NA	1.2	NA	1.3	NA	9.9	1.2	8.4	e 23.9
March	.3	1.8	NA	1.4	NA	1.3	NA	10.7	E .9	E 8.4	e 24.6
3-Month Total	**.7**	**5.1**	**NA**	**4.0**	**NA**	**4.1**	**NA**	**31.9**	E 3.3	E 25.1	e 74.1
1996 3-Month Total	**NA**	**6.8**	**NA**	**4.0**	**NA**	**4.8**	**NA**	**32.0**	**NA**	**25.0**	e 72.6
1995 3-Month Total	**–**	**6.2**	**NA**	**3.8**	**NA**	**.9**	**NA**	**28.6**	**NA**	**23.3**	e 62.9

[a] According to EIA's *Nuclear Power Generation and Fuel Cycle Report 1996,* Armenia has two units; one came on line in November 1995 but no data are available prior to 1997, and the other is projected to come on line in 2001.

[b] The total gross generation estimate for 1993-1995 for Czech Republic, Kazakstan, Lithuania, and Slovakia is calculated as 5 percent more than the annual net nuclear generation reported by the International Atomic Energy Agency and published in Energy Information Administration (EIA), *Nuclear Power Generation and Fuel Cycle Report 1996* (October 1996), Table 1.

[c] Romania has one nuclear generating unit that is undergoing testing; its commercial operation was projected to begin in 1996.

[d] The total gross generation estimate for 1992 for Eastern European countries are calculated as 5 percent more than the annual net nuclear generation reported by the International Atomic Energy Agency and published in the Energy Information Administration annual report, *World Nuclear Capacity and Fuel Cycle Requirements 1993,* November 1993, Table 10.

[e] Sum of available data only.

NA=Not available. – =Not applicable. E=Estimate. (s)=Less than 0.05 billion kilowatthours.

Notes: • Net figures are generally less than gross figures by about 5 percent, the difference being the energy consumed by the generating plants themselves.

• Monthly data may not sum to annual totals due to independent rounding and because precommercial generation is included in some annual totals but not in the monthly data. • Data for countries may not sum to regional totals due to independent rounding.

Source: Based on data from *Nucleonics Week,* a copyrighted publication of The McGraw-Hill Publishing Companies, Inc. Used with permission.

Sources for Tables 10.1a and 10.1b

United States

Table 3.1a.

Other Countries: Annual Data

1973-1979: Energy Information Administration (EIA), *International Energy Annual 1981,* Table 8.
1980-1995: Office of Energy Markets and End Use, International Database, April 1997.
1996: Average of monthly data.

Other Countries: Monthly Data

1995-1997: *Petroleum Intelligence Weekly,* the *Oil and Gas Journal,* and other industry sources.

World: Annual Data

1973-1979: EIA, *International Energy Annual 1981,* Table 8.
1980-1995: Office of Energy Markets and End Use, International Database, April 1997.
1996: Average of monthly data.

World: Monthly Data

1995-1997: EIA, *International Petroleum Statistics Report,* sum of all countries' monthly data.

Appendix A. Thermal Conversion Factors

The thermal conversion factors presented in the following eight tables can be used to estimate the heat content in British thermal units (Btu) of a given amount of energy measured in physical units, such as barrels or cubic feet. For example, 10 barrels of asphalt have a heat content of approximately 66.36 million Btu (10 barrels x 6.636 million Btu/barrel = 66.36 million Btu).

Thermal conversion factors for hydrocarbon mixes (Table A1) are weighted averages of the thermal conversion factors for each hydrocarbon included in the mix. For example, in calculating the thermal conversion factor for a 60-40 butane-propane mixture, the thermal conversion factor for butane is weighted 1.5 times more heavily than the thermal conversion factor for propane.

In general, the annual thermal conversion factors presented in Tables A1 through A8 are computed from final annual data. However, if the current year's final data are not available in time for publication, thermal conversion factors for the current year are computed from the best available data and are labeled "preliminary." The source of each factor is described in the section entitled "Thermal Conversion Factor Source Documentation," which follows Table A8 in this appendix.

Table A1. Approximate Heat Content of Petroleum Products

(Million Btu per Barrel)

Petroleum Product	Heat Content	Petroleum Product	Heat Content
Asphalt	6.636	Petrochemical Feedstocks	
Aviation Gasoline	5.048	Naphtha Less Than 401° F	5.248
Butane	4.326	Other Oils Equal to or Greater Than 401° F	5.825
Butane-Propane Mixture[a]	4.130	Still Gas	6.000
Distillate Fuel Oil	5.825	Petroleum Coke	6.024
Ethane	3.082	Plant Condensate	5.418
Ethane-Propane Mixture[b]	3.308	Propane	3.836
Isobutane	3.974	Residual Fuel Oil	6.287
Jet Fuel, Kerosene Type	5.670	Road Oil	6.636
Jet Fuel, Naphtha Type	5.355	Special Naphthas	5.248
Kerosene	5.670	Still Gas	6.000
Lubricants	6.065	Unfinished Oils	5.825
Motor Gasoline	5.253	Unfractionated Stream	5.418
Natural Gasoline and Isopentane	4.620	Waxes	5.537
Pentanes Plus	4.620	Miscellaneous	5.796

[a] 60 percent butane and 40 percent propane.

[b] 70 percent ethane and 30 percent propane.

Source: See "Thermal Conversion Factor Source Documentation," which follows Table A8.

Table A2. Approximate Heat Content of Crude Oil, Crude Oil and Products, and Natural Gas Plant Liquids

(Million Btu per Barrel)

	Crude Oil			Crude Oil and Products		Natural Gas Plant Liquids Production
	Production	Imports	Exports	Imports	Exports	
1973	5.800	5.817	5.800	5.897	5.752	4.049
1974	5.800	5.827	5.800	5.884	5.774	4.011
1975	5.800	5.821	5.800	5.858	5.748	3.984
1976	5.800	5.808	5.800	5.856	5.745	3.964
1977	5.800	5.810	5.800	5.834	5.797	3.941
1978	5.800	5.802	5.800	5.839	5.808	3.925
1979	5.800	5.810	5.800	5.810	5.832	3.955
1980	5.800	5.812	5.800	5.796	5.820	3.914
1981	5.800	5.818	5.800	5.775	5.821	3.930
1982	5.800	5.826	5.800	5.775	5.820	3.872
1983	5.800	5.825	5.800	5.774	5.800	3.839
1984	5.800	5.823	5.800	5.745	5.850	3.812
1985	5.800	5.832	5.800	5.736	5.814	3.815
1986	5.800	5.903	5.800	5.808	5.832	3.797
1987	5.800	5.901	5.800	5.820	5.858	3.804
1988	5.800	5.900	5.800	5.820	5.840	3.800
1989	5.800	5.906	5.800	5.833	5.857	3.826
1990	5.800	5.934	5.800	5.849	5.833	3.822
1991	5.800	5.948	5.800	5.873	5.823	3.807
1992	5.800	5.953	5.800	5.877	5.777	3.804
1993	5.800	5.954	5.800	5.883	5.779	3.801
1994	5.800	5.950	5.800	5.861	5.781	3.794
1995	5.800	5.924	5.800	5.849	5.751	3.796
1996[a]	5.800	5.931	5.800	5.843	5.745	3.777
1997[a]	5.800	5.931	5.800	5.843	5.745	3.777

[a] Preliminary.
Note: Crude oil includes lease condensate.
Source: See "Thermal Conversion Factor Source Documentation," which follows Table A8.

Table A3. Approximate Heat Content of Petroleum Products, Weighted Averages

(Million Btu per Barrel)

	Consumption							
	Residential and Commercial	Industrial	Transportation	Electric Utilities	Total	Imports	Exports	Liquefied Petroleum Gases Consumption
1973	5.387	5.568	5.395	6.245	5.515	5.983	5.752	3.746
1974	5.377	5.538	5.394	6.238	5.504	5.959	5.773	3.730
1975	5.358	5.528	5.392	6.250	5.494	5.935	5.747	3.715
1976	5.383	5.538	5.395	6.251	5.504	5.980	5.743	3.711
1977	5.389	5.555	5.400	6.249	5.518	5.908	5.796	3.677
1978	5.382	5.553	5.404	6.251	5.519	5.955	5.814	3.669
1979	5.471	5.418	5.428	6.258	5.494	5.811	5.864	3.680
1980	5.468	5.376	5.440	6.254	5.479	5.748	5.841	3.674
1981	5.409	5.313	5.432	6.258	5.448	5.659	5.837	3.643
1982	5.392	5.263	5.422	6.258	5.415	5.664	5.829	3.615
1983	5.286	5.273	5.415	6.255	5.406	5.677	5.800	3.614
1984	5.384	5.223	5.422	6.251	5.395	5.613	5.867	3.599
1985	5.326	5.221	5.423	6.247	5.387	5.572	5.819	3.603
1986	5.357	5.286	5.427	6.257	5.418	5.624	5.839	3.640
1987	5.316	5.253	5.430	6.249	5.403	5.599	5.860	3.659
1988	5.320	5.248	5.434	6.250	5.410	5.618	5.842	3.652
1989	5.257	5.233	5.440	6.241	5.410	5.641	5.869	3.683
1990	5.208	5.272	5.445	6.247	5.411	5.614	5.838	3.625
1991	5.163	5.192	5.442	6.248	5.384	5.636	5.827	3.614
1992	5.169	5.188	5.445	6.243	5.378	5.623	5.774	3.624
1993	5.148	5.200	5.438	6.241	5.379	5.620	5.777	3.606
1994	5.154	5.171	5.442	6.231	5.371	5.538	5.779	3.635
1995	5.150	5.150	5.439	6.210	5.358	5.511	5.746	3.623
1996[a]	5.135	5.130	5.441	6.206	5.352	5.497	5.738	3.614
1997[a]	5.135	5.130	5.441	6.206	5.352	5.497	5.738	3.614

[a] Preliminary.
Note: Weighted averages of the products included in each category are calculated by using heat content values shown in Table A1.
Source: See "Thermal Conversion Factor Source Documentation," which follows Table A8.

Table A4. Approximate Heat Content of Natural Gas

(Btu per Cubic Foot)

	Production		Consumption			Imports	Exports
	Dry	Marketed (Wet)	Sectors Other Than Electric Utilities	Electric Utilities	Total		
1973	1,021	1,093	1,020	1,024	1,021	1,026	1,023
1974	1,024	1,097	1,024	1,022	1,024	1,027	1,016
1975	1,021	1,095	1,020	1,026	1,021	1,026	1,014
1976	1,020	1,093	1,019	1,023	1,020	1,025	1,013
1977	1,021	1,093	1,019	1,029	1,021	1,026	1,013
1978	1,019	1,088	1,016	1,034	1,019	1,030	1,013
1979	1,021	1,092	1,018	1,035	1,021	1,037	1,013
1980	1,026	1,098	1,024	1,035	1,026	1,022	1,013
1981	1,027	1,103	1,025	1,035	1,027	1,014	1,011
1982	1,028	1,107	1,026	1,036	1,028	1,018	1,011
1983	1,031	1,115	1,031	1,030	1,031	1,024	1,010
1984	1,031	1,109	1,030	1,035	1,031	1,005	1,010
1985	1,032	1,112	1,031	1,038	1,032	1,002	1,011
1986	1,030	1,110	1,029	1,034	1,030	997	1,008
1987	1,031	1,112	1,031	1,032	1,031	999	1,011
1988	1,029	1,109	1,029	1,028	1,029	1,002	1,018
1989	1,031	1,107	1,031	1,030	1,031	1,004	1,019
1990	1,031	1,105	1,030	1,034	1,031	1,012	1,018
1991	1,030	1,108	1,031	1,024	1,030	1,014	1,022
1992	1,030	1,110	1,031	1,022	1,030	1,011	1,018
1993	1,027	1,106	1,028	1,022	1,027	1,020	1,016
1994	1,028	1,105	1,029	1,022	1,028	1,022	1,011
1995	1,027	1,106	1,027	1,025	1,027	1,021	1,011
1996[a]	1,027	1,106	1,027	1,025	1,027	1,021	1,011
1997[a]	1,027	1,106	1,027	1,025	1,027	1,021	1,011

[a] Preliminary.
Source: See "Thermal Conversion Factor Source Documentation," which follows Table A8.

Table A5. Approximate Heat Content of Coal

(Million Btu per Short Ton)

		Consumption						
	Production	Residential and Commercial	Coke Plants	Other Industrial[a]	Electric Utilities[b]	Total	Imports	Exports
1973	23.376	22.831	26.780	22.586	22.246	23.057	25.000	26.596
1974	23.072	22.479	26.778	22.419	21.781	22.677	25.000	26.700
1975	22.897	22.261	26.782	22.436	21.642	22.506	25.000	26.562
1976	22.855	22.774	26.781	22.530	21.679	22.498	25.000	26.601
1977	22.597	22.919	26.787	22.322	21.508	22.265	25.000	26.548
1978	22.248	22.466	26.789	22.207	21.275	22.017	25.000	26.478
1979	22.454	22.242	26.788	22.452	21.364	22.100	25.000	26.548
1980	22.415	22.543	26.790	22.690	21.295	21.947	25.000	26.384
1981	22.308	22.474	26.794	22.585	21.085	21.713	25.000	26.160
1982	22.239	22.695	26.797	22.712	21.194	21.674	25.000	26.223
1983	22.052	22.775	26.798	22.691	21.133	21.576	25.000	26.291
1984	22.010	22.844	26.799	22.543	21.101	21.573	25.000	26.402
1985	21.870	22.646	26.798	22.020	20.959	21.366	25.000	26.307
1986	21.913	22.947	26.798	22.198	21.084	21.462	25.000	26.292
1987	21.922	23.404	26.799	22.381	21.136	21.517	25.000	26.291
1988	21.823	23.571	26.799	22.360	20.900	21.328	25.000	26.299
1989	21.765	23.650	26.800	22.347	20.848	21.272	25.000	26.160
1990	21.822	23.137	26.799	22.457	20.929	21.331	25.000	26.202
1991	21.681	23.114	26.799	22.460	20.755	21.146	25.000	26.188
1992	21.646	23.105	26.799	22.250	20.787	21.143	25.000	26.161
1993	21.388	22.994	26.800	22.123	20.639	20.983	25.000	26.335
1994	21.352	23.112	26.800	22.068	20.673	21.010	25.000	26.329
1995	21.277	23.118	26.800	21.950	20.495	20.845	25.000	26.180
1996[c]	21.277	23.118	26.800	21.950	20.495	20.845	25.000	26.180
1997[c]	21.277	23.118	26.800	21.950	20.495	20.845	25.000	26.180

[a] Includes transportation.
[b] Data shown in this column are not the same as those shown in the *Electric Power Monthly* (EPM). The EPM data report coal receipts; the data shown here represent coal consumption.
[c] Preliminary.
Source: See "Thermal Conversion Factor Source Documentation," which follows Table A8.

Table A6. Approximate Heat Content of Bituminous Coal and Lignite

(Million Btu per Short Ton)

	Production	Consumption					Imports	Exports
		Residential and Commercial	Coke Plants	Other Industrial[a]	Electric Utilities	Total		
1973	23.391	22.887	26.800	22.585	22.262	23.073	25.000	26.612
1974	23.087	22.523	26.800	22.420	21.799	22.694	25.000	26.716
1975	22.910	22.258	26.800	22.439	21.659	22.522	25.000	26.573
1976	22.863	22.819	26.800	22.528	21.692	22.509	25.000	26.613
1977	22.597	22.594	26.800	22.290	21.521	22.266	25.000	26.561
1978	22.242	22.078	26.800	22.175	21.284	22.014	25.000	26.501
1979	22.449	21.884	26.800	22.436	21.372	22.100	25.000	26.570
1980	22.411	22.488	26.800	22.690	21.301	21.950	25.000	26.404
1981	22.301	22.010	26.800	22.572	21.091	21.710	25.000	26.176
1982	22.233	22.226	26.800	22.695	21.200	21.670	25.000	26.231
1983	22.048	22.438	26.800	22.680	21.141	21.576	25.000	26.300
1984	22.005	22.406	26.800	22.525	21.108	21.570	25.000	26.410
1985	21.867	22.568	26.800	22.013	20.965	21.368	25.000	26.320
1986	21.908	22.669	26.800	22.185	21.091	21.462	25.000	26.308
1987	21.918	22.800	26.800	22.360	21.143	21.514	25.000	26.304
1988	21.817	23.135	26.800	22.341	20.905	21.324	25.000	26.308
1989	21.759	22.917	26.800	22.324	20.854	21.268	25.000	26.166
1990	21.819	22.678	26.800	22.444	20.935	21.330	25.000	26.207
1991	21.678	22.635	26.800	22.448	20.761	21.146	25.000	26.192
1992	21.643	22.768	26.800	22.242	20.792	21.142	25.000	26.165
1993	21.383	22.749	26.800	22.111	20.644	20.983	25.000	26.341
1994	21.347	22.683	26.800	22.046	20.681	21.011	25.000	26.335
1995	21.271	22.767	26.800	21.931	20.502	20.845	25.000	26.187
1996[b]	21.271	22.767	26.800	21.931	20.502	20.845	25.000	26.187
1997[b]	21.271	22.767	26.800	21.931	20.502	20.845	25.000	26.187

[a] Includes transportation.
[b] Preliminary.
Source: See "Thermal Conversion Factor Source Documentation," which follows Table A8.

Table A7. Approximate Heat Content of Anthracite and Coal Coke

(Million Btu per Short Ton)

	Anthracite					Coal Coke Imports and Exports
	Production	Consumption			Imports and Exports	
		Sectors Other Than Electric Utilities	Electric Utilities	Total		
1973	22.132	22.674	17.920	21.464	25.400	24.800
1974	21.711	22.330	17.200	20.919	25.400	24.800
1975	21.582	22.272	17.064	20.762	25.400	24.800
1976	22.045	22.618	17.526	21.254	25.400	24.800
1977	22.661	24.101	17.244	22.066	25.400	24.800
1978	23.079	24.388	17.104	22.398	25.400	24.800
1979	23.170	24.272	17.454	22.069	25.400	24.800
1980	22.869	22.719	17.652	21.405	25.400	24.800
1981	23.291	23.749	18.168	22.080	25.400	24.800
1982	23.289	24.578	18.160	22.518	25.400	24.800
1983	22.734	24.536	16.516	21.583	25.400	24.800
1984	23.107	25.128	17.018	22.322	25.400	24.800
1985	22.428	23.031	16.784	20.817	25.400	24.800
1986	23.084	24.399	15.578	21.512	25.400	24.800
1987	23.108	26.293	15.962	22.435	25.400	24.800
1988	23.266	26.021	17.312	22.423	25.400	24.800
1989	23.385	27.196	16.310	22.623	25.400	24.800
1990	22.574	25.199	16.140	21.668	25.400	24.800
1991	22.573	25.268	15.858	21.410	25.400	24.800
1992	22.572	24.617	16.944	21.423	25.400	24.800
1993	22.573	24.096	16.534	21.262	25.400	24.800
1994	22.572	25.037	14.680	20.828	25.400	24.800
1995	22.572	24.696	14.572	20.808	25.400	24.800
1996[a]	22.572	24.696	14.572	20.808	25.400	24.800
1997[a]	22.572	24.696	14.572	20.808	25.400	24.800

[a] Preliminary.
Source: See "Thermal Conversion Factor Source Documentation," which follows Table A8.

Table A8. Approximate Heat Rates for Electricity

(Btu per Kilowatthour)

	Electricity Generation			
	Fossil-Fueled Steam-Electric Plants[a]	Nuclear Steam-Electric Plants	Geothermal Energy Plants	Electricity Consumption
1973	10,389	10,903	21,674	3,412
1974	10,442	11,161	21,674	3,412
1975	10,406	11,013	21,611	3,412
1976	10,373	11,047	21,611	3,412
1977	10,435	10,769	21,611	3,412
1978	10,361	10,941	21,611	3,412
1979	10,353	10,879	21,545	3,412
1980	10,388	10,908	21,639	3,412
1981	10,453	11,030	21,639	3,412
1982	10,454	11,073	21,629	3,412
1983	10,520	10,905	21,290	3,412
1984	10,440	10,843	21,303	3,412
1985	10,447	10,813	21,263	3,412
1986	10,446	10,799	21,263	3,412
1987	10,419	10,776	21,263	3,412
1988	10,324	10,743	21,096	3,412
1989	10,317	10,724	21,096	3,412
1990	10,335	10,680	21,096	3,412
1991	10,352	10,740	20,997	3,412
1992	10,302	10,678	20,914	3,412
1993	10,280	10,682	20,914	3,412
1994	10,272	10,676	20,914	3,412
1995	10,301	10,658	20,914	3,412
1996[b]	E 10,301	10,623	20,960	3,412
1997[b]	E 10,301	10,623	20,960	3,412

[a] This thermal conversion factor is used for hydroelectric power generation and for biomass fuels, wind, photovoltaic, and solar thermal energy consumed at electric utilities.

[b] Preliminary.

E=Estimated data.

Source: See "Thermal Conversion Factor Source Documentation," which follows this table.

Thermal Conversion Factor Source Documentation

Approximate Heat Content of Petroleum and Natural Gas Plant Liquids

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

Aviation Gasoline. EIA adopted the Bureau of Mines thermal conversion factor of 5.048 million Btu per barrel for "Gasoline, Aviation" as published by the Texas Eastern Transmission Corporation in Appendix V of *Competition and Growth in American Energy*

Markets 1947-1985, a 1968 release of historical and projected statistics.

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

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

Crude Oil, Exports. Assumed by EIA to be 5.800 million Btu per barrel or equal to the thermal conversion factor for crude oil produced in the United

States. See **Crude Oil and Lease Condensate, Production**.

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

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

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

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

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

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

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

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

Jet Fuel, Kerosene Type. EIA adopted the Bureau of Mines thermal conversion factor of 5.670 million Btu per barrel for "Jet Fuel, Commercial" as published by the Texas Eastern Transmission Corporation in Appendix V of *Competition and Growth in American Energy Markets 1947-1985*, a 1968 release of historical and projected statistics.

Jet Fuel, Naphtha Type. EIA adopted the Bureau of Mines thermal conversion factor of 5.355 million Btu per barrel for "Jet Fuel, Military" as published by the Texas Eastern Transmission Corporation in Appendix V of *Competition and Growth in American Energy Markets 1947-1985*, a 1968 release of historical and projected statistics.

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

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

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

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

Motor Gasoline. EIA adopted the Bureau of Mines thermal conversion factor of 5.253 million Btu per barrel for "Gasoline, Motor Fuel" by the Texas Eastern Transmission Corporation in Appendix V of *Competition and Growth in American Energy Markets 1947-1985*, a 1968 release of historical and projected statistics.

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

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

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

Petrochemical Feedstocks, Naphtha Less Than 401 Degrees Fahrenheit. Assumed by EIA to be 5.248 million Btu per barrel, equal to the thermal conversion factor for special naphthas. See **Special Naphthas.**

Petrochemical Feedstocks, Oils Equal to or Greater Than 401 Degrees Fahrenheit. Assumed by EIA to be 5.825 million Btu per barrel, equal to the thermal conversion factor for distillate fuel oil. See **Distillate Fuel Oil**.

Petrochemical Feedstocks, Still Gas. Assumed by EIA to be 6.000 million Btu per barrel, equal to the thermal conversion factor for still gas. See **Still Gas**.

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

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

Petroleum Products, Consumption by Electric Utilities. Calculated annually by EIA as the average of the thermal conversion factors for all petroleum products consumed at electric utilities, weighted by the quantity of each petroleum product consumed at electric utilities. The quantity of petroleum consumed is estimated in the State Energy Data System as documented in the *State Energy Data Report.*

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

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

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

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

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

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

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

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

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

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

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

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

Unfractionated Stream. EIA assumed the thermal conversion factor to be 5.418 million Btu per barrel or equal to that for plant condensate (see **Plant**

Condensate) and first published in the *Annual Report to Congress, Volume 2, 1981.*

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

Approximate Heat Content of Natural Gas

Natural Gas, Total Consumption. 1973-1979: EIA adopted the thermal conversion factor calculated annually by the American Gas Association (AGA) and published in *Gas Facts*, an AGA annual publication. 1980 forward: Calculated annually by EIA by dividing the total heat content of natural gas consumed by the total quantity of natural gas consumed. The heat content and quantity consumed are from Form EIA-176. Published sources are: 1980-1989: EIA, *Natural Gas Annual 1992, Volume 2,* Table 15. 1990-1992: EIA, *Natural Gas Annual 1992, Volume 2,* Table 16. 1993 forward: 1992 value used as an estimate.

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

Natural Gas, Consumption by Sectors Other Than Electric Utilities. Calculated annually by EIA by dividing the heat content of all natural gas consumed less the heat content of natural gas consumed at electric utilities by the quantity of all natural gas consumed less the quantity of natural gas consumed at electric utilities. Data are from Forms EIA-176, FERC-423, EIA-759, and predecessor forms.

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

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

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

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

Approximate Heat Content of Coal and Coal Coke

Anthracite, Total Consumption. Calculated annually by EIA by dividing the sum of the heat content of anthracite consumed by electric utilities and all other sectors combined by the total quantity of anthracite consumed.

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

Anthracite, Consumption by Sectors Other Than Electric Utilities. Calculated annually by EIA by dividing the heat content of anthracite production less the heat content of the anthracite consumed at electric utilities, net exports, and shipments to U.S. Armed Forces overseas by the quantity of anthracite consumed by sectors other than electric utilities less the quantity of anthracite stock changes, losses, and "unaccounted for."

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

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

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

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

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

Bituminous Coal and Lignite, Consumption by Other Industrial and Transportation Users. 1973: Calculated by EIA through regression analysis measuring the difference between the average Btu value of coal consumed by other industrial users and that of coal consumed at electric utilities in the 1974-1982 period. 1974 forward: Calculated annually by EIA by assuming that the bituminous coal and lignite delivered to other industrial users from each coal-producing area (reported on Form EIA-6 and predecessor Bureau of Mines Form 6-1419-Q) contained a heat value equal to that of bituminous coal and lignite received at electric utilities from each of the same coal-producing areas (reported on Form FERC-423). The average Btu value of coal by coal-producing area was applied to the volume of deliveries to other industrial users from each coal-producing area, and the sum total of the heat content was divided by the total volume of deliveries. Coal-producing areas are the Bureau of Mines coal-producing districts for 1974 through 1989 and coal-producing States for 1990 forward.

Bituminous Coal and Lignite, Consumption by Residential and Commercial Users. 1973: Calculated by EIA through regression analysis measuring the difference between the average Btu value of coal consumed by residential and commercial users and that of coal consumed by electric utilities in the 1974-1982 period. 1974 forward: Calculated annually by EIA by assuming that the bituminous coal and lignite delivered to residential and commercial users from each coal-producing area (reported on Form EIA-6 and predecessor Bureau of Mines Form 6-1419-Q) contained a heat value equal to that of bituminous coal and lignite received at electric utilities from each of the same coal-producing areas (reported on Form FERC-423). The average Btu value of coal by coal-producing area was applied to the volume of deliveries to residential and commercial users from each coal-producing area, and the total of the heat value was divided by the total volume of deliveries. Coal-producing areas are the Bureau of Mines coal-producing districts for 1974 through 1989 and coal-producing States for 1990 forward.

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

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

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

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

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

Coal, Consumption by Sectors Other Than Electric Utilities. Calculated annually by EIA by dividing the sum of the heat content of bituminous coal and lignite and anthracite consumed by sectors other than electric utilities by the sum of their respective tonnages.

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

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

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

Coal Coke, Imports and Exports. EIA adopted the Bureau of Mines estimate of 24.800 million Btu per short ton.

Approximate Heat Rates for Electricity

Fossil-Fueled Steam-Electric Plant Generation. There is no generally accepted practice for measuring the thermal conversion rates for power plants that generate electricity from hydroelectric, wood and

waste, wind, photovoltaic, or solar thermal energy sources. Therefore, EIA uses data from Form EIA-767 to calculate a rate factor that is equal to the prevailing annual average heat rate factor for fossil-fueled steam-electric power plants in the United States. By using that factor, it is possible to evaluate fossil fuel requirements for replacing those sources during periods of interruption such as droughts. The heat content of a kilowatthour of electricity produced, regardless of the generation process, is 3,412 Btu per kilowatthour. 1973-1991: The weighted annual average heat rate for fossil-fueled steam-electric power plants in the United States, as published by EIA in *Electric Plant Cost and Power Production Expenses 1991*, Table 9. 1992 forward: Unpublished factors calculated on the basis of data from Form EIA-767.

Geothermal Energy Plant Generation. 1973-1981: Calculated annually by EIA by weighting the annual average heat rates of operating geothermal units by the installed nameplate capacities as reported on Form FPC-12. 1982 forward: Estimated annually by EIA on the basis of an informal survey of relevant plants.

Nuclear Steam-Electric Plant Generation. 1973-1991: Calculated annually by EIA by dividing the total heat content consumed in nuclear generating units by the total (net) electricity generated by nuclear generating units. The heat content and electricity generation are reported on Form FERC-1, Form EIA-412, and predecessor forms. The factors, beginning with 1982 data, are published in the following EIA reports—1982: *Historical Plant Cost and Annual Production Expenses for Selected Electric Plants 1982*, page 215. 1983-1991: *Electric Plant Cost and Power Production Expenses 1991*, Table 13. 1992 forward: Calculated annually by EIA by dividing the total heat content of the steam leaving the nuclear generating units to generate electricity by the total (net) electricity generated by nuclear generating units. The heat content and electricity generation data are reported in Nuclear Regulatory Commission, *Licensed Operating Reactors—Status Summary Report.*

Appendix B. Metric and Other Physical Conversion Factors

Data presented in the *Monthly Energy Review* and in other Energy Information Administration publications are expressed predominately in units that historically have been used in the United States, such as British thermal units, barrels, cubic feet, and short tons. However, because U.S. commerce involves other nations, most of which use metric units of measure, the U.S. Government is committed to the transition to the metric system, as stated in the Metric Conversion Act of 1975 (Public Law 94–168), amended by the Omnibus Trade and Competitiveness Act of 1988 (Public Law 100–418), and Executive Order 12770 of July 25, 1991.

The metric conversion factors presented in Table B1 can be used to calculate the metric-unit equivalents of values expressed in U.S. customary units. For example, 500 short tons are the equivalent of 453.6 metric tons (500 short tons x 0.9071847 metric tons/short ton = 453.6 metric tons).

In the metric system of weights and measures, the names of multiples and subdivisions of any unit may be derived by combining the name of the unit with prefixes, such as deka, hecto, and kilo, meaning, respectively, 10, 100, 1,000, and deci, centi, and milli, meaning, respectively, one-tenth, one-hundredth, and one-thousandth. Common metric prefixes can be found in Table B2.

The conversion factors presented in Table B3 can be used to calculate equivalents in various physical units commonly used in energy analyses. For example, 10 barrels are the equivalent of 420 U.S. gallons (10 barrels x 42 gallons/barrel = 420 gallons).

Table B1. Metric Conversion Factors

Type of Unit	U.S. Unit	*multiplied by*	Conversion Factor	*equals*	Metric Unit
Mass	short tons (2,000 lb)	x	0.907 184 7	=	metric tons (t)
	long tons	x	1.016 047	=	metric tons (t)
	pounds (lb)	x	0.453 592 37[a]	=	kilograms (kg)
	pounds uranium oxide (lb U_3O_8)	x	0.384 647[b]	=	kilograms uranium (kgU)
	ounces, avoirdupois (avdp oz)	x	28.349 52	=	grams (g)
Volume	barrels of oil (bbl)	x	0.158 987 3	=	cubic meters (m^3)
	cubic yards (yd^3)	x	0.764 555	=	cubic meters (m^3)
	cubic feet (ft^3)	x	0.028 316 85	=	cubic meters (m^3)
	U.S. gallons (gal)	x	3.785 412	=	liters (L)
	ounces, fluid (fl oz)	x	29.573 53	=	milliliters (mL)
	cubic inches (in^3)	x	16.387 06	=	milliliters (mL)
Length	miles (mi)	x	1.609 344[a]	=	kilometers (km)
	yards (yd)	x	0.914 4[a]	=	meters (m)
	feet (ft)	x	0.304 8[a]	=	meters (m)
	inches (in)	x	2.54[b]	=	centimeters (cm)
Area	acres	x	0.404 69	=	hectares (ha)
	square miles (mi^2)	x	2.589 988	=	square kilometers (km^2)
	square yards (yd^2)	x	0.836 127 4	=	square meters (m^2)
	square feet (ft^2)	x	0.092 903 04[a]	=	square meters (m^2)
	square inches (in^2)	x	6.451 6[b]	=	square centimeters (cm^2)
Temperature	degrees Fahrenheit (^oF)	x	5/9 (after subtracting 32)[a,c]	=	degrees Celsius (^oC)
Energy	British thermal units (Btu)	x	1, 055.055 852 62 [a,d]	=	joules (J)
	calories (cal)	x	4.186 8[a]	=	joules (J)
	kilowatthours (kWh)	x	3.6[a]	=	megajoules (MJ)

[a]Exact conversion.
[b]Calculated by the Energy Information Administration.
[c]To convert degrees Celsius (^oC) to degrees Fahrenheit (^oF) exactly, multiply by 9/5, then add 32.
[d]The Btu used in this table is the International Table Btu adopted by the Fifth International Conference on Properties of Steam, London, 1956.

Notes: • Spaces have been inserted after every third digit to the right of the decimal for ease of reading. • Most metric units belong to the International System of Units (SI), and the liter, hectare, and metric ton are accepted for use with the SI units. For more information about the SI units, contact Dr. Barry Taylor at Building 221, Room B610, National Institute of Standards and Technology, Gaithersburg, MD 20899, or on telephone number 301–975–4220.

Sources: • General Services Administration, Federal Standard 376B, *Preferred Metric Units for General Use by the Federal Government* (Washington, DC, January 27, 1993), pp. 9–11, 13, and 16. • National Institute of Standards and Technology, Special Publications 330, 811, and 814. • American National Standards Institute/Institute of Electrical and Electronic Engineers, ANSI/IEEE Std 268–1992, pp. 28 and 29.

Table B2. Metric Prefixes

Unit Multiple	Prefix	Symbol	Unit Subdivision	Prefix	Symbol
10^{1}	deka	da	10^{-1}	deci	d
10^{2}	hecto	h	10^{-2}	centi	c
10^{3}	kilo	k	10^{-3}	milli	m
10^{6}	mega	M	10^{-6}	micro	µ
10^{9}	giga	G	10^{-9}	nano	n
10^{12}	tera	T	10^{-12}	pico	p
10^{15}	peta	P	10^{-15}	femto	f
10^{18}	exa	E	10^{-18}	atto	a
10^{21}	zetta	Z	10^{-21}	zepto	z
10^{24}	yotta	Y	10^{-24}	yocto	y

Source: U.S. Department of Commerce, National Institute of Standards and Technology, *The International System of Units (SI)*, NIST Special Publication 330, 1991 Edition (Washington, DC, August 1991), p. 10.

Table B3. Other Physical Conversion Factors

Energy Source	Original Unit	*multiplied by*	Conversion Factor	*equals*	Final Unit
Petroleum	barrels (bbl)	x	42[a]	=	U.S. gallons (gal)
Coal	short tons	x	2,000[a]	=	pounds (lb)
	long tons	x	2,240[a]	=	pounds (lb)
	metric tons (t)	x	1,000[a]	=	kilograms (kg)
Wood	cords (cd)	x	1.25[b]	=	short tons
	cords (cd)	x	128[a]	=	cubic feet (ft^3)

[a]Exact conversion.
[b]Calculated by the Energy Information Administration.
Source: U.S. Department of Commerce, National Institute of Standards and Technology, *Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices*, NIST Handbook 44, 1994 Edition (Washington, DC, October 1993), pp. B–10, C–17 and C–21.

Appendix C. Carbon Dioxide Emission Factors for Coal

The need for accurate estimates of carbon dioxide emissions produced during the combustion of coal has led the Energy Information Administration (EIA) to develop basic emission factors. Basic emission factors reflect the carbon-to-heat-content ratio of coal, a ratio which measures carbon dioxide emissions per unit of energy (pounds per million Btu), assuming complete combustion. These basic factors are derived from 5,426 sample analyses maintained in EIA's Coal Analysis File. Variations in the carbon-to-heat-content ratios of different coals were observed to follow coal rank and geographic origin, leading EIA to develop basic emission factors specific to the rank and the State of origin of the coal.

On the basis of these rank- and State-specific basic emission factors for coal, EIA has also developed emission factors by sector. These sectoral emission factors weight the coal consumed in a given sector by its rank and State of origin. Table C1 presents the U.S. average carbon dioxide emission factors for coal by sector. Emission factors differ among sectors and within a given sector over time for a number of reasons:

- A higher average emission factor in the residential and commercial sector can be attributed to the steady consumption of bituminous coal and anthracite (presumably for home heating).
- Virtually all of the coal consumed by coke plants comes from only a few States in the Appalachian Coal Basin (West Virginia, Virginia, and eastern Kentucky). Hence, the emission factors for this sector have remained fairly constant.
- Other industrial users of coal (not coke plants) increased consumption of low-rank, high-emission western coals, which has contributed to a rise in their average emission factor.
- Electric utilities, which account for most U.S. coal consumption, have shifted over time away from high-rank, low-emission bituminous coal to low-rank, high-emission subbituminous coal and lignite as reflected in a gradually rising weighted-average carbon dioxide emission factor.

Table C1. Average Carbon Dioxide Emission Factors for Coal by Coal-Consuming Sector
(Pounds of Carbon Dioxide per Million Btu)

Year	Residential and Commercial	Industrial		Electric Utilities	U.S. Average[b]
		Coke Plants[a]	Other Coal		
1980	210.6	205.8	205.9	206.7	206.5
1981	212.0	205.8	205.9	206.9	206.7
1982	210.4	205.7	206.0	207.0	206.9
1983	209.2	205.5	205.9	207.1	207.0
1984	209.5	205.6	206.2	207.1	207.0
1985	209.3	205.6	206.4	207.3	207.1
1986	209.2	205.4	206.5	207.3	207.1
1987	209.4	205.2	206.4	207.3	207.2
1988	209.1	205.3	206.4	207.6	207.3
1989	209.7	205.3	206.6	207.5	207.3
1990	209.5	206.2	206.8	207.6	207.4
1991	210.2	206.2	206.9	207.7	207.5
1992	211.2	206.2	207.1	207.7	207.6
1993	209.9	206.2	207.0	207.8	207.7
1994	209.8	206.3	207.2	207.9	207.8
1995	210.2	206.4	207.2	208.1	207.9

[a]No allowances have been made for carbon retained in non-energy coal chemical byproducts from the coal carbonization process.
[b]Weighted average. The weights used are consumption values by sector.
Source: Energy Information Administration, Office of Coal, Nuclear, Electric and Alternate Fuels.

Appendix D. List of Features

The following is a complete list of features that have appeared in the *Monthly Energy Review* since the first issue was published in October 1974. There are several categories of features on the list: "Energy Plugs" are 1-page descriptions of recently released EIA products. "Articles" cover a wide range of energy-related subjects in depth; "Highlights" summarize the most important information presented in the subject Energy Information Administration (EIA) report; "Energy Previews" provide brief overviews of EIA preliminary energy data on a given topic; "EIA Data News" items present information on recent changes in the scope, design, methodology, and findings of EIA's energy surveys and databases; and "Energy Snapshots" use graphics to set off key data from EIA survey reports.

Feature	Cover Date
1997	
Energy Plug: *Annual Energy Outlook 1997*	January 1997
Energy Plug: *The Changing Structure of the Electric Power Industry: An Update*	January 1997
Energy Plug: *Performance Profiles of Major Energy Producers 1995*	January 1997
Energy Plug: *The Effects of Title IV of the Clean Air Act Amendments of 1990 on Electric Utilities: An Update*	March 1997
Energy Plug: *International Energy Outlook 1997*	April 1997
Energy Plug: *Restructuring Energy Industries: Lessons From Natural Gas*	May 1997
1996	
Energy Plug: *Renewable Energy Annual 1995*	January 1996
Energy Plug: *State Energy Price and Expenditure Report 1993*	January 1996
Energy Plug: *Annual Energy Outlook 1996*	February 1996
Energy Plug: *Alternatives to Traditional Transportation Fuels 1994, Volume 1*	February 1996
Energy Snapshot: Describing Current and Potential Markets for Alternative-Fuel Vehicles	March 1996
Article: Energy Equipment Choices: Fuel Costs and Other Determinants	April 1996
Energy Plug: *International Energy Outlook 1996*	May 1996
Energy Plug: U.S. Electric Utility Demand-Side Management: Trends and Analysis	May 1996
Energy Plug: Country Analysis Brief: Iraq	June 1996
Energy Plug: *Annual Energy Review 1995*	July 1996
Energy Plug: Voluntary Reporting of Greenhouse Gases 1995	July 1996
Energy Plug: *Residential Lighting: Use and Potential Savings*	August 1996
Energy Plug: EIA Electronic Media Meet Customer Needs	August 1996
Energy Plug: Alternatives to Traditional Transportation Fuels, Volume 2: Greenhouse Gas Emissions	September 1996
Energy Plug: *State Energy Data Report 1994*	October 1996
Energy Plug: *Privatization and the Globalization of Energy Markets*	October 1996
Energy Plug: *Emissions of Greenhouse Gases in the United States 1995*	October 1996
Energy Plug: *Nuclear Power Generation and Fuel Cycle Report 1996*	November 1996
Energy Plug: *Country Analysis Brief: Algeria*	November 1996
Energy Plug: *Denver Clean-City Fleets Survey*	November 1996
Energy Plug: *Natural Gas 1996: Issues and Trends*	December 1996
1995	
Highlights: *Manufacturing Consumption of Energy 1991*	January 1995
Article: U.S. Wind Energy Potential: The Effect of the Proximity of Wind Resources to Transmission Lines	February 1995
EIA Data News: The Response Analysis Survey: Evaluating Manufacturing Energy Consumption Survey Methodology	March 1995
Energy Preview: Electric Utility Fleet Survey 1993, Preliminary Estimates: Assessing the Market for Alternative-Fuel Vehicles	April 1995
Highlights: *Commercial Buildings Energy Consumption and Expenditures 1992*	April 1995
Article: Measuring Dependence on Imported Oil	August 1995
Energy Preview: Household Energy Consumption and Expenditures 1993, Preliminary Estimates	August 1995
Energy Snapshot: Housing Characteristics 1993	September 1995
Highlights: *State Energy Data Report 1993, Consumption Estimates*	October 1995

Feature	Cover Date
1995 (Continued)	
Special Communication: Results of the *Monthly Energy Review* Features Readership Survey	November 1995
Highlights: *Annual Energy Review 1994*	November 1995
Energy Preview: Alternative Fuel Providers Fleet Surveys, Preliminary Data	November 1995
Article: Environmental Externalities in Electric Power Markets: Acid Rain, Urban Ozone, and Climate Change	November 1995
Energy Preview: Alternative Fuel Providers Fleet Surveys, Preliminary Data	December 1995
1994	
Energy Preview: Commercial Buildings Energy Consumption Survey, Preliminary Estimates, 1992	January 1994
Highlights: *Household Vehicles Energy Consumption 1991*	February 1994
Highlights: *Energy Use and Carbon Emissions: Some International Comparisons*	April 1994
Highlights: *Commercial Buildings Characteristics 1992*	June 1994
Article: Demand, Supply, and Price Outlook for Reformulated Motor Gasoline 1995	July 1994
Article: Commercial Nuclear Electric Power in the United States: Problems and Prospects	August 1994
Highlights: *Reducing Home Heating and Cooling Costs*	August 1994
Energy Preview: Commercial Buildings Energy Consumption and Expenditures 1992, Preliminary Estimates	September 1994
Article: Carbon Dioxide Emission Factors for Coal: A Summary	September 1994
Article: The Impact of Flow Control and Tax Reform on Ownership and Growth in the U.S. Waste-to-Energy Industry	September 1994
EIA Data News: Data Collection on Alternative-Fuel Vehicles	October 1994
Highlights: *Energy End-Use Intensities in Commercial Buildings*	October 1994
Article: Change in Method for Estimating Fuel Economy for the Residential Transportation Energy Consumption Survey	October 1994
Article: Comparability of Supply- and Consumption-Derived Estimates of Manufacturing Energy Consumption	October 1994
Energy Preview: Housing Characteristics 1993, Selected Preliminary Estimates	November 1994
Energy Preview: Propane-Provider Fleet Survey 1993, Preliminary Estimates	November 1994
Energy Preview: Atlanta Private Fleet Survey 1994, Preliminary Estimates	December 1994
1993	
Energy Preview: Residential Transportation Energy Consumption Survey, Preliminary Estimates, 1991	January 1993
EIA Data News: Natural Gas Transported for the Account of Others	February 1993
Highlights: *Federal Energy Subsidies: Direct and Indirect Interventions in Energy Markets*	July 1993
Highlights: *Household Energy Consumption and Expenditures 1990*	August 1993
Article: Demand, Supply, and Price Outlook for Low-Sulfur Diesel Fuel	August 1993
Energy Preview: Manufacturing Energy Consumption Survey, Preliminary Estimates, 1991	September 1993
Highlights: *Natural Gas 1992: Issues and Trends*	September 1993
Highlights: *International Energy Outlook 1993*	October 1993
Highlights: *The Changing Structure of the U.S. Coal Industry: An Update*	November 1993
Highlights: *Emissions of Greenhouse Gases in the United States 1985-1990*	December 1993
Highlights: *Assessment of Energy Use in Multibuilding Facilities*	December 1993
1992	
Energy Preview: Residential Energy Consumption and Expenditures Preliminary Estimates, 1990	April 1992
EIA Data News: Oxygenate Data Collection Begins	May 1992
Highlights: *Lighting in Commercial Buildings*	June 1992
Article: Demand, Supply, and Price Outlook for Oxygenated Gasoline, Winter 1992-1993	August 1992
EIA Data News: EIA Statistics on Electric Utility Demand-Side Management	September 1992
EIA Data News: EIA Statistics on Nonutility Power Producers	October 1992
Highlights: *Derived Annual Estimates of Manufacturing Energy Consumption, 1974-1988*	November 1992
Article: Energy Efficiency in the Manufacturing Sector	December 1992
1991	
Highlights: *U.S. Energy Industry Financial Developments, 1990 Fourth Quarter*	March 1991
Article: U.S. Wholesale Electricity Transactions	April 1991

Feature	Cover Date
1990	
Article: Refining Results Highlight Energy Companies' First-Half Profit Performance	June 1990
Highlights: *U.S. Oil and Gas Reserves by Year of Field Discovery*	August 1990
1989	
Article: A Review of Valdez Oil Spill Market Impacts	March 1989
Article: Monthly U.S. Crude Oil Production Estimates	March 1989
Article: Superconductivity and Energy Production and Consumption	May 1989
Highlights: *Commercial Buildings Consumption and Expenditures 1986*	May 1989
Article: Higher Prices Yield Improved Energy Industry Financial Results in the First Half of 1989	June 1989
Article: The Future Structure of the U.S. Commercial Nuclear Power Equipment Manufacturing Industry	July 1989
Highlights: *Potential Costs of Restricting Chlorofluorocarbon Use*	September 1989
Highlights: *Manufacturing Energy Consumption Survey: Changes in Energy Efficiency, 1980-1985*	October 1989
Highlights: *Household Energy Consumption and Expenditures 1987, Part 1: National Data*	November 1989
Article: Improved Energy Profits Offset by Refining Results in 1989	December 1989
1988	
Article: Measures of Energy Consumption, Expenditures, and Prices	May 1988
Article: The U.S. Energy Industry's Financial Recovery Continued in the First Half of 1988	June 1988
Article: A U.S. Perspective on Condensate	June 1988
Highlights: *Characteristics of Commercial Buildings 1986*	June 1988
Article: State Energy Severance Taxes, 1972-1987	July 1988
Highlights: *Manufacturing Energy Consumption Survey: Consumption of Energy, 1985*	September 1988
Highlights: *Profiles of Foreign Direct Investment in U.S. Energy 1987*	October 1988
Highlights: *Manufacturing Energy Consumption Survey: Fuel Switching, 1985*	November 1988
Article: Increased Refining Income Led U.S. Energy Industry Financial Recovery in 1988	December 1988
1987	
Article: Manufacturing Sector Energy Consumption, 1985 Provisional Estimates	January 1987
Highlights: *Consumption and Expenditures, April 1984 Through March 1985, Part 1: National Data*	April 1987
Highlights: *Consumption and Expenditures, April 1984 Through March 1985, Part 2: Regional Data*	May 1987
Article: U.S. Energy Industry Financial Developments, 1987 Second Quarter	June 1987
Article: End-Use Consumption of Residential Energy	July 1987
Highlights: *Uranium Industry Annual 1986*	September 1987
Highlights: *Potential Oil Production from ANWR*	October 1987
Highlights: *Profiles of Foreign Direct Investment in U.S. Energy 1986*	November 1987
Article: The U.S. Energy Industry in 1987: A Slow Recovery	December 1987
1986	
Article: State Motor Gasoline Taxes, 1960-1985	March 1986
Article: The Impact of Low Oil Prices on Electric Utility Fuel Choice	June 1986
Article: U.S. Energy Industry Financial Developments, 1986 Second Quarter	June 1986
Highlights: *International Energy Annual 1985*	September 1986
Article: U.S. Energy Industry Financial Developments, 1986	December 1986
1985	
Highlights: *Annual Energy Review 1984*	January 1985
Highlights: *Performance Profiles of Major Energy Producers 1983*	February 1985
Article: Estimating Well Completions	March 1985
Highlights: *State Energy Price and Expenditure Report 1970-1982*	March 1985
Highlights: *State Energy Data Report, Consumption Estimates, 1960-1983*	April 1985
Highlights: *Annual Outlook for U.S. Electric Power 1985*	June 1985
Highlights: *Short-Term Energy Outlook, Volume 1, October 1985*	August 1985
Highlights: Analysis of Growth in Electricity Demand, 1980-1984	August 1985
Highlights: *Profiles of Foreign Direct Investment in U.S. Energy 1984*	November 1985
Highlights: *Performance Profiles of Major Energy Producers 1984*	December 1985

Feature	Cover Date
1984	
Highlights: *Annual Energy Review 1983*	February 1984
Highlights: *Annual Energy Outlook 1983*	March 1984
Highlights: *State Energy Data Report, Consumption Estimates, 1960-1982*	March 1984
Highlights: *State Energy Price and Expenditure Report, 1970-1981*	May 1984
Highlights: *Solar Collector Manufacturing Activity 1983*	June 1984
Highlights: *International Energy Annual 1983*	September 1984
Highlights: *Estimates of U.S. Wood Energy Consumption, 1980-1983*	September 1984
Highlights: *Energy Conservation Indicators 1983 Annual Report*	November 1984
Highlights: *Annual Energy Outlook 1984*	December 1984
1983	
Highlights: *Residential Energy Consumption Survey: Consumption and Expenditures*	January 1983
Highlights: *Residential Energy Consumption Survey: Housing Characteristics*	February 1983
Article: The Effect of Weather on Energy Use	April 1983
Article: Trends in U.S. Energy Since 1973	May 1983
Article: Data Series on Petroleum Use at Electric Utilities	July 1983
Highlights: *Energy Price and Expenditure Data Report, 1970-1980*	July 1983
Highlights: *Railroad Deregulation: Impact on Coal*	August 1983
Highlights: *Port Deepening and User Fees: Impact on U.S. Coal Exports*	August 1983
Highlights: *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves, 1982 Annual Report*	September 1983
Article: Residential Energy Consumption, 1978 Through 1981	September 1983
Article: Exploring for Oil and Gas	November 1983
Article: The Influence of Federal Actions on Petroleum Exploration	December 1983[2]
Article: Aggregate Statistics: Accurate or Misleading?	December 1983[3]
1982	
Article: The Interstate and Intrastate Natural Gas Markets	January 1982
Article: Natural Gas Drilling and Production Under the Natural Gas Policy Act	February 1982
Highlights: *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves, 1981 Annual Report*	September 1982
Article: Impacts of Financial Constraints on the Electric Utility Industry	October 1982
Highlights: *Energy Company Development Patterns in the Postembargo Era*	November 1982
1981	
Article: Changes in 1981 Petroleum Data Series	May 1981
Article: Information Services of the Energy Information Administration	September 1981
Article: An Overview of Natural Gas Markets	December 1981
1980	
Article: The Solar Collector Industry and Solar Energy	February 1980
Article: Trends in the Installation of Energy Using Equipment in New Residential Buildings	March 1980
Article: The Energy Information Administration's Oil and Gas Reserves Program—The First Year's Report	June 1980
Article: Energy From Urban Waste	August 1980
Article: Natural Gas Liquids: Revisions to 1979 Data	October 1980
Article: EIA Weekly Petroleum Data: Data Collection and Methods of Estimation	November 1980
Article: The Department of Energy Disclosure Policy for Individually Identifiable Information Maintained by the Energy Information Administration	December 1980
1979	
Article: The Energy Requirements of U.S. Agriculture	July 1979
Article: Three Mile Island—Possible Regulatory Responses and Their Impacts on the Nation's Short-Term Electric Utility Fuel Outlook	October 1979
Article: Reduction in Natural Gas Requirements Due to Fuel Switching	December 1979
1978	
Article: Short-Term Petroleum Supply and Demand	May 1978
1977	
Article: Crude Oil Entitlements Program	January 1977
Article: Motor Gasoline Supply and Demand	July 1977

Feature	Cover Date
1976	
Article: Curtailments of Natural Gas Service	January 1976
Article: Home Heating Conservation Alternatives and the Solar Collector Industry	March 1976
Article: Trends in United States Petroleum Imports	September 1976
1975	
Article: Energy Consumption	March 1975
Article: Nuclear Power	April 1975
Article: The Price of Crude Oil	June 1975
Article: U.S. Coal Resources and Reserves	July 1975
Article: Propane—A National Energy Resource	September 1975
Article: Short-Term Energy Supply and Demand Forecasting at FEA	October 1975

Glossary

Anthracite: A hard, black, lustrous coal containing a high percentage of fixed carbon and a low percentage of volatile matter. Often referred to as hard coal. It conforms to ASTM Specification D388-84 for anthracite, meta-anthracite, and semianthracite.

Asphalt: A dark-brown-to-black cement-like material containing bitumens as the predominant constituents obtained by petroleum processing. The definition includes crude asphalt as well as the following finished products: cements, fluxes, the asphalt content of emulsions (exclusive of water), and petroleum distillates blended with asphalt to make cutback asphalts.

ASTM: The American Society for Testing and Materials.

Aviation Gasoline Blending Components: Naphthas that are used for blending or compounding into finished aviation gasoline (e.g., straight-run gasoline, alkylate, and reformate). Excludes oxygenates (alcohols and ethers), butane, and pentanes plus.

Aviation Gasoline, Finished: All special grades of gasoline for use in aviation reciprocating engines, as given in ASTM Specification D910 and Military Specification MIL-G-5572. Excludes blending components that will be used in blending or compounding into finished aviation gasoline.

Barrel (petroleum): A unit of volume equal to 42 U.S. gallons.

Base (Cushion) Gas: The volume of gas needed as a permanent inventory to maintain adequate underground storage reservoir pressures and deliverability rates throughout the withdrawal season. All native gas is included in the base gas volume.

Bituminous Coal: A dense black coal, often with well-defined bands of bright and dull material, with a moisture content usually less than 20 percent. Often referred to as soft coal. It is the most common coal and is used primarily for generating electricity, making coke, and space heating. It conforms to ASTM Specification D388-84 for bituminous coal. In this report, bituminous coal includes subbituminous coal.

British Thermal Unit (Btu): The quantity of heat needed to raise the temperature of 1 pound of water by 1^{o} F at or near 39.2^{o} F. See **Heat Content of a Quantity of Fuel, Gross** and **Heat Content of a Quantity of Fuel, Net**.

Butane: A normally gaseous straight-chain or branched-chain hydrocarbon (C_4H_{10}). It is extracted from natural gas or refinery gas streams. It includes isobutane and normal butane and is designated in ASTM Specification D1835 and Gas Processors Association Specifications for commercial butane.

- *Isobutane:* A normally gaseous branched-chain hydrocarbon. It is a colorless paraffinic gas that boils at a temperature of 10.9^{o} F. It is extracted from natural gas or refinery gas streams.
- *Normal Butane*: A normally gaseous straight-chain hydrocarbon. It is a colorless paraffinic gas that boils at a temperature of 31.1^{o} F. It is extracted from natural gas or refinery gas streams.

Butylene: An olefinic hydrocarbon (C_4H_8) recovered from refinery processes.

Capacity Factor: The ratio of the electrical energy produced by a generating unit for a given period of time to the electrical energy that could have been produced at continuous full-power operation during the same period.

CIF: See **Cost, Insurance, Freight**.

City Gate: A point or measuring station at which a distribution gas utility receives gas from a natural gas pipeline company or transmission system.

Coal: A black or brownish-black solid, combustible substance formed by the partial decomposition of vegetable matter without access to air. The rank of coal, which includes anthracite, bituminous coal, subbituminous coal, and lignite, is based on fixed carbon, volatile matter, and heating value. Coal rank indicates the progressive alteration, or coalification, from lignite to anthracite. Lignite contains approximately 9 to 17 million Btu per ton. The heat contents of subbituminous and bituminous coal range from 16 to 24 million Btu per ton, and from 19 to 30 million Btu per ton, respectively. Anthracite contains approximately 22 to 28 million Btu per ton.

Coal Coke: A hard, porous product made from baking bituminous coal in ovens at temperatures as high as $2{,}000^{o}$ F. It is used both as a fuel and as a reducing agent in smelting iron ore in a blast furnace.

Commercial Sector: The commercial sector, as defined economically, consists of business establishments that are not engaged in transportation or in manufacturing or other types of industrial activity (agriculture, mining, or construction). Commercial establishments include hotels, motels, restaurants,

wholesale businesses, retail stores, laundries, and other service enterprises; religious and nonprofit organizations; health, social, and educational institutions; and Federal, State, and local governments. Street lights, pumps, bridges, and public services are also included if the establishment operating them is considered commercial.

Completion: The installation of permanent equipment for the production of oil or gas. If a well is equipped to produce only oil or gas from one zone or reservoir, the definition of a well (classified as an oil well or gas well) and the definition of a completion are identical. However, if a well is equipped to produce oil and/or gas separately from more than one reservoir, a well is not synonymous with a completion.

Conversion Factor: A number that translates units of one system into corresponding values of another system. Conversion factors can be used to translate physical units of measure for various fuels into Btu equivalents.

Cost, Insurance, Freight (CIF): A type of sale in which the buyer of the product agrees to pay a unit price that includes the f.o.b. value of the product at the point of origin plus all costs of insurance and transportation. This type of transaction differs from a "delivered" purchase in that the buyer accepts the quantity as determined at the loading port (as certified by the Bill of Loading and Quality Report) rather than pay on the basis of the quantity and quality ascertained at the unloading port. It is similar to the terms of an f.o.b. sale, except that the seller, as a service for which he is compensated, arranges for transportation and insurance.

Crude Oil f.o.b. Price: The crude oil price actually charged at the oil-producing country's port of loading. Includes deductions for any rebates and discounts or additions of premiums, where applicable. It is the actual price paid with no adjustment for credit terms.

Crude Oil (Including Lease Condensate): A mixture of hydrocarbons that exists 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. Where identifiable, liquids produced at natural gas processing plants and mixed with crude oil are likewise excluded.

Crude Oil Landed Cost: The price of crude oil at the port of discharge, including charges associated with the purchase, transporting, and insuring of a cargo from the purchase point to the port of discharge. The cost does not include charges incurred at the discharge port (e.g., import tariffs or fees, wharfage charges, and demurrage).

Crude Oil Refinery Input: The total crude oil put into processing units at refineries.

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

Crude Oil Used Directly: Crude oil consumed as fuel by crude oil pipelines and on crude oil leases.

Cubic Foot (natural gas): A unit of volume equal to 1 cubic foot at a pressure base of 14.73 pounds standard per square inch absolute and a temperature base of 60^{o} F.

Degree-Day Normals: Simple arithmetic averages of monthly or annual degree-days over a long period of time (usually the 30-year period 1961-1990). The averages may be simple degree-day normals or population-weighted degree-day normals.

Degree-Days, Cooling (CDD): The number of degrees per day that the daily average temperature is above 65^{o} F. The daily average temperature is the mean of the maximum and minimum temperatures for a 24-hour period.

Degree-Days, Heating (HDD): The number of degrees per day that the daily average temperature is below 65^{o} F. The daily average temperature is the mean of the maximum and minimum temperatures for a 24-hour period.

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

Design Electrical Rating, Net: The nominal net electrical output of a nuclear unit as specified by the electric utility for the purpose of plant design.

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

Distillate Fuel Oil: A general classification for one of the petroleum fractions produced in conventional distillation operations. Included are products known as No. 1, No. 2, and No. 4 fuel oils and No. 1, No. 2, and No. 4 diesel fuels. It is used primarily for space heating, on- and off-highway diesel engine fuel (including railroad engine fuel and fuel for agricultural machinery), and electric power generation.

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

Dry Natural Gas Production (as a decrement from gas reserves): The volume of natural gas withdrawn from reservoirs during the report year less (1) the volume returned to such reservoirs in cycling, repressuring of oil reservoirs, and conservation operations; (2) shrinkage resulting from the removal of lease condensate and plant liquids; and (3) nonhydrocarbon gases, where they occur in sufficient quantity to render the gas unmarketable. Volumes of gas withdrawn from gas storage reservoirs and native gas that has been transferred to the storage category are not considered production. This is not the same as marketed production, since the latter also excludes vented and flared gas but contains liquids.

Dry Natural Gas Production (as an increment to gas supply): Gross withdrawals from production reservoirs less gas used in reservoir repressuring, amounts vented and flared, nonhydrocarbons removed, and various natural gas constituents, such as ethane, propane, and butane, removed at natural gas processing plants. The parameters for measurement are 60^{o} F and 14.73 pounds standard per square inch absolute.

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

Electricity Generation: The process of producing electric energy or transforming other forms of energy into electric energy. Also the amount of electric energy produced or expressed in watthours (Wh).

Electricity Generation, Gross: The total amount of electric energy produced by the generating station or stations, measured at the generator terminals.

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

Electricity Production: Net electricity (gross electricity output measured at generator terminals minus power plant use) generated by publicly and privately owned electric utilities. Excludes industrial electricity generation (except autogeneration of hydroelectric power).

Electricity Sales: The amount of kilowatthours sold in a given period of time; usually grouped by classes of service, such as residential, commercial, industrial, and other. "Other" sales include sales for public street and highway lighting and other sales to public authorities, sales to railroads and railways, and interdepartmental sales.

Electric Power Plant: A station containing prime movers, electric generators, and auxiliary equipment for converting mechanical, chemical, and/or fission energy into electric energy.

Electric Utility: A corporation, person, agency, authority, or other legal entity or instrumentality that owns and/or operates facilities for the generation, transmission, distribution, or sale of electric energy, primarily for use by the public, and that files forms listed in the *Code of Federal Regulations*, Title 18, Part 141. Facilities that qualify as cogenerators or small power producers under the Public Utility Regulatory Policies Act are not considered electric utilities.

Electric Utility Sector: The electric utility sector consists of privately and publicly owned establishments that generate, transmit, distribute, or sell electricity primarily for use by the public and that meet the definition of an electric utility. Nonutility power producers are not included in the electric utility sector.

End-Use Sectors: The residential, commercial, industrial, and transportation sectors of the economy.

Energy: The capacity for doing work as measured by the capability of doing work (potential energy) or the conversion of this capability to motion (kinetic energy). Energy has several forms, some of which are easily convertible and can be changed to another form useful for work. Most of the world's convertible energy comes from fossil fuels that are burned to produce heat that is then used as a transfer medium to mechanical or other means in order to accomplish tasks. Electrical energy is usually measured in kilowatthours, while heat energy is usually measured in British thermal units.

Energy Consumption: The use of energy as a source of heat or power or as an input in the manufacturing process.

Energy Consumption, End-Use: *Primary end-use energy consumption* is the sum of fossil fuel consumption by the four end-use sectors (residential, commercial, industrial, and transportation) and generation of hydroelectric power by nonelectric utilities. *Net end-use energy consumption* includes electric utility sales to those sectors but excludes

electrical system energy losses. *Total end-use energy consumption* includes both electric utility sales to the four end-use sectors *and* electrical system energy losses.

Energy Consumption, Total: The sum of fossil fuel consumption by the five sectors (residential, commercial, industrial, transportation, and electric utility) plus hydroelectric power, nuclear electric power, net imports of coal coke, and electricity generated for distribution from wood, waste, geothermal, wind, photovoltaic, and solar thermal energy.

Energy Source: A substance, such as petroleum, natural gas, or coal, that supplies heat or power. In Energy Information Administration reports, electricity and renewable forms of energy, such as biomass, geothermal, wind, and solar, are considered to be energy sources.

Ethane: A normally gaseous straight-chain hydrocarbon (C_2H_6). It is a colorless, paraffinic gas that boils at a temperature of -127.48° F. It is extracted from natural gas and refinery gas streams.

Ethylene: An olefinic hydrocarbon (C_2H_4) recovered from refinery processes or petrochemical processes.

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

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

f.a.s.: See **Free Alongside Ship**.

Federal Energy Regulatory Commission (FERC): The Federal agency with jurisdiction over interstate electricity sales, wholesale electric rates, hydroelectric licensing, natural gas pricing, oil pipeline rates, and gas pipeline certification. FERC is an independent regulatory agency within the Department of Energy and is the successor to the Federal Power Commission.

Federal Power Commission (FPC): The predecessor agency of the Federal Energy Regulatory Commission. The Federal Power Commission was created by an Act of Congress under the Federal Water Power Act on June 10, 1920. It was charged originally with regulating the electric power and natural gas industries. It was abolished on September 30, 1977, when the Department of Energy was created. Its functions were divided between the Department of Energy and the Federal Energy Regulatory Commission, an independent regulatory agency.

First Purchase Price: The marketed first sales price of domestic crude oil, consistent with the removal price defined by the provisions of the Windfall Profits Tax on Domestic Crude Oil (Public Law 96-223, Sec. 4998 (c)).

Flared Natural Gas: Natural gas burned in flares on the base site or at gas processing plants.

f.o.b.: See **Free on Board**.

Footage Drilled: Total footage for wells in various categories, as reported for any specified period, includes (1) the deepest total depth (length of well bores) of all wells drilled from the surface, (2) the total of all bypassed footage drilled in connection with reported wells, and (3) all new footage drilled for directional sidetrack wells. Footage reported for directional sidetrack wells does not include footage in the common bore, which is reported as footage for the original well. In the case of old wells drilled deeper, the reported footage is that which was drilled below the total depth of the old well.

Former U.S.S.R.: See **U.S.S.R.**

Fossil Fuel: Any naturally occurring organic fuel, such as petroleum, coal, and natural gas.

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

Free Alongside Ship (f.a.s.): The value of a commodity at the port of exportation, generally including the purchase price, plus all charges incurred in placing the commodity alongside the carrier at the port of exportation.

Free on Board (f.o.b.): A transaction whereby the seller makes the product available within an agreed-on period at a given port at a given price. It is the responsibility of the buyer to arrange for the transportation and insurance.

Fuel Ethanol: An anhydrous, denatured aliphatic alcohol (C_2H_5OH) intended for motor gasoline blending. See **Oxygenates.**

Full-Power Operation: Operation of a nuclear generating unit at 100 percent of its design capacity. Full-power operation precedes commercial operation.

Gasohol: A blend of finished motor gasoline (leaded or unleaded) and alcohol (generally ethanol but sometimes methanol) limited to 10 percent by volume of alcohol. Gasohol is included in finished leaded and unleaded motor gasoline.

Gas-Turbine Electric Power Plant: A plant in which the prime mover is a gas turbine. A gas turbine typically consists of an axial-flow air compressor, one or more combustion chambers where liquid or gaseous fuel is burned and the hot gases expand to drive the generator and then are used to run the compressor.

Gas Well: A well completed for the production of natural gas from one or more gas zones or reservoirs. (Wells producing both crude oil and natural gas are classified as oil wells.)

Geothermal Energy: Energy from the internal heat of the Earth, which may be residual heat, friction heat, or a result of radioactive decay. The heat is found in rocks and fluids at various depths and can be extracted by drilling and/or pumping.

Geothermal Energy (as used at electric utilities): Hot water or steam extracted from geothermal reservoirs in the Earth's crust and supplied to steam turbines at electric utilities that drive generators to produce electricity.

Gross Domestic Product (GDP): The total value of goods and services produced by labor and property located in the United States. As long as the labor and property are located in the United States, the supplier (that is, the workers and, for property, the owners) may be either U.S. residents or residents of foreign countries.

Heat Content of a Quantity of Fuel, Gross: The total amount of heat released when a fuel is burned. Coal, crude oil, and natural gas all include chemical compounds of carbon and hydrogen. When those fuels are burned, the carbon and hydrogen combine with oxygen in the air to produce carbon dioxide and water. Some of the energy released in burning goes into transforming the water into steam and is usually lost. The amount of heat spent in transforming the water into steam is counted as part of gross heat content but is not counted as part of net heat content. Also referred to as the higher heating value. Btu conversion factors typically used in EIA represent gross heat content.

Heat Content of a Quantity of Fuel, Net: The amount of usable heat energy released when a fuel is burned under conditions similar to those in which it is normally used. Also referred to as the lower heating value. Btu conversion factors typically used in EIA represent gross heat content.

Heavy Oil: The fuel oils remaining after the lighter oils have been distilled off during the refining process. Except for start-up and flame stabilization, virtually all petroleum used in steam-electric power plants is heavy oil.

Hydrocarbon: An organic chemical compound of hydrogen and carbon in the gaseous, liquid, or solid phase. The molecular structure of hydrocarbon compounds varies from the simplest (methane, the primary constituent of natural gas) to the very heavy and very complex.

Hydroelectric Power: The production of electricity from the kinetic energy of falling water.

Hydroelectric Power Plant: A plant in which the turbine generators are driven by falling water.

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

Industrial Sector: The industrial sector comprises manufacturing industries, which make up the largest part of the sector, along with mining, construction, agriculture, fisheries, and forestry. Establishments in this sector range from steel mills, to small farms, to companies assembling electronic components.

Internal Combustion Electric Power Plant: A power plant in which the prime mover is an internal combustion engine. Diesel or gas-fired engines are the principal types used in electric power plants. The plant is usually operated during periods of high demand for electricity.

Jet Fuel: The term includes kerosene-type jet fuel and naphtha-type jet fuel. Kerosene-type jet fuel is a kerosene-quality product used primarily for commercial turbojet and turboprop aircraft engines. Naphtha-type jet fuel is a fuel in the heavy naphthas range used primarily for military turbojet and turboprop aircraft engines.

Kerosene: A petroleum distillate that has a maximum distillation temperature of 401° F at the 10-percent recovery point, a final boiling point of 572° F, and a minimum flash point of 100° F. Included are the two grades designated in ASTM D3699 (No. 1-K and No. 2-K) and all grades of kerosene called range or stove oil. Kerosene is used in space heaters, cook stoves, and water heaters; it is suitable for use as an illuminant when burned in wick lamps.

Lease and Plant Fuel: Natural gas used in well, field, and lease operations (such as gas used in drilling operations, heaters, dehydrators, and field compressors) and used as fuel in natural gas processing plants.

Lease Condensate: A natural gas liquid recovered from gas well gas (associated and non-associated) in lease separators or natural gas field facilities. Lease condensate consists primarily of pentanes and heavier hydrocarbons.

Light Oil: Lighter fuel oils distilled off during the refining process. Virtually all petroleum used in

internal combustion and gas-turbine engines is light oil.

Lignite: A brownish-black coal of low rank with a high content of moisture and volatile matter. Often referred to as brown coal. It is used almost exclusively for electric power generation. It conforms to ASTM Specification D388-84 for lignite.

Liquefied Natural Gas (LNG): Natural gas (primarily methane) that has been liquefied by reducing its temperature to -260° F at atmospheric pressure.

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

Low-Power Testing: The period of time between a nuclear generating unit's initial fuel loading date and the issuance of its operating (full-power) license. The maximum level of operation during that period is 5 percent of the unit's design thermal rating.

Lubricants: Substances used to reduce friction between bearing surfaces or as process materials either incorporated into other materials used as processing aids in the manufacturing of other products or as carriers of other materials. Petroleum lubricants may be produced either from distillates or residues. Other substances may be added to impart or improve certain required properties. Excluded are byproducts of lubricating oil refining, such as aromatic extracts derived from solvent extraction or tars derived from deasphalting. Included are all grades of lubricating oils from spindle oil to cylinder oil and those used in greases. Lubricant categories are paraffinic and naphthenic.

Marketed Production: Gross withdrawals less gas used for repressuring, quantities vented and flared, and nonhydrocarbon gases removed in treating or processing operations. Includes all quantities of gas used in field and processing operations.

Methanol: A light, volatile alcohol (CH_3OH) eligible for motor gasoline blending. See **Oxygenates.**

Miscellaneous Petroleum Products: All finished petroleum products not classified elsewhere—for example, petrolatum, lube refining byproducts (aromatic extracts and tars), absorption oils, ram-jet fuel, petroleum rocket fuels, synthetic natural gas feedstocks, and specialty oils.

Motor Gasoline Blending Components: Naphthas that will be used for blending or compounding into finished motor gasoline (e.g., straight-run gasoline, alkylate, reformate, benzene, toluene, and zylene). Excluded are oxygenates (alcohols and ethers), butane, and pentanes plus.

Motor Gasoline, Finished: A complex mixture of relatively volatile hydrocarbons, with or without small quantities of additives, that has been blended to form a fuel suitable for use in spark-ignition engines. Motor gasoline, as given in ASTM Specification D439 or Federal Specification VV-G-1690B, includes a range in distillation temperatures from 122 to 158° F at the 10-percent recovery point and from 365 to 374° F at the 90-percent recovery point. Motor gasoline includes reformulated motor gasoline, oxygenated motor gasoline, and other finished motor gasoline. Blendstock is excluded until blending has been completed.

- *Reformulated Motor Gasoline*: Motor gasoline, formulated for use in motor vehicles, the composition and properties of which are certified as "reformulated motor gasoline" by the Environmental Protection Agency.
- *Oxygenated Motor Gasoline*: Motor gasoline, formulated for use in motor vehicles, that has an oxygen content of 1.8 percent or higher by weight.
- *Other Finished Motor Gasoline:* Motor gasoline that is not included in the reformulated or oxygenated categories.

Motor Gasoline, Finished Gasohol: A blend of finished motor gasoline (leaded or unleaded) and alcohol (generally ethanol, but sometimes methanol) in which 10 percent or more of the product is alcohol.

Motor Gasoline, Finished Leaded: Motor gasoline that contains more than 0.05 gram of lead per gallon or more than 0.005 gram of phosphorus per gallon. Premium and regular grades are included, depending on the octane rating. Includes leaded gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Motor Gasoline, Finished Leaded Premium: Motor gasoline having an antiknock index, calculated as (R+M)/2, greater than 90 and containing more than 0.05 gram of lead per gallon or more than 0.005 gram of phosphorus per gallon.

Motor Gasoline, Finished Leaded Regular: Motor gasoline having an antiknock index, calculated as (R+M)/2, greater than or equal to 87 and less than or equal to 90 and containing more than 0.05 gram of lead or 0.005 gram of phosphorus per gallon.

Motor Gasoline, Finished Unleaded: Motor gasoline containing not more than 0.05 gram of lead per gallon and not more than 0.005 gram of phosphorus per gallon. Premium and regular grades are included, depending on the octane rating. Includes unleaded gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Motor Gasoline, Finished Unleaded Midgrade: Motor gasoline having an antiknock index, calculated as (R+M)/2, greater than or equal to 88 and less than or equal to 90 and containing not more than 0.05 gram of phosphorus per gallon.

Motor Gasoline, Finished Unleaded Premium: Motor gasoline having an antiknock index, calculated as (R+M)/2, greater than 90 and containing not more than 0.05 gram of lead or 0.005 gram of phosphorus per gallon.

Motor Gasoline, Finished Unleaded Regular: Motor gasoline having an antiknock index, calculated as (R+M)/2, of 87 containing not more than 0.05 gram of lead per gallon and not more than 0.005 gram of phosphorus per gallon.

Motor Gasoline Retail Prices: Motor gasoline prices calculated each month by the Bureau of Labor Statistics (BLS) in conjunction with the construction of the Consumer Price Index (CPI). Those prices are collected 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-service).

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

MTBE (Methyl Tertiary Butyl Ether): An ether, $(CH_3)_3COCH_3$, intended for motor gasoline blending. See **Oxygenates**.

Naphtha: A genetic term applied to a petroleum fraction with an approximate boiling range between 122 and 400° F.

Natural Gas: A mixture of hydrocarbons (principally methane) and small quantities of various nonhydrocarbons existing in the gaseous phase or in solution with crude oil in underground reservoirs.

Natural Gas, Dry: The marketable portion of natural gas production, which is obtained by subtracting extraction losses, including natural gas liquids removed at natural gas processing plants, from total production.

Natural Gas Marketed Production: Gross withdrawals of natural gas from production reservoirs, less gas used for reservoir repressuring; nonhydrocarbon gases removed in treating and processing operations; and quantities vented and flared.

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

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

Natural Gas, Wet: Natural gas prior to the extraction of liquids and other miscellaneous products.

Net Consumption: See **Energy Consumption, End-Use.**

Nonhydrocarbon Gases: Typical nonhydrocarbon gases that may be present in reservoir natural gas are carbon dioxide, helium, hydrogen sulfide, and nitrogen.

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

Nuclear Electric Power Plant: A single-unit or multiunit facility in which heat produced in one or more reactors by the fissioning of nuclear fuel is used to drive one or more steam turbines.

Nuclear Reactor: An apparatus in which the nuclear fission chain can be initiated, maintained, and controlled so that energy is released at a specific rate. The reactor includes fissionable material (fuel), such as uranium or plutonium; fertile material; moderating material (unless it is a fast reactor); a heavy-walled pressure vessel; shielding to protect personnel; provision for heat removal; and control elements and instrumentation.

Offshore: That geographic area that lies seaward of the coastline. In general, the coastline is the line of ordinary low water along with that portion of the coast that is in direct contact with the open sea or the line marking the seaward limit of inland water.

Oil: See **Crude Oil (Including Lease Condensate)**.

Oil Well: A well completed for the production of crude oil from one or more oil zones or reservoirs. Wells producing both crude oil and natural gas are classified as oil wells.

Operable (nuclear): A U.S. nuclear generating unit is considered operable after it completes low-power testing and is issued a full-power operating license by the Nuclear Regulatory Commission. A foreign nuclear generating unit is considered operable once it has generated electricity to the grid.

Organization for Economic Cooperation and Development (OECD): Members are Australia, Austria, Belgium, Canada, Denmark, Faroe Islands, Finland, France, Germany, Greece, Greenland, Hawaiian Trade Zone, Iceland, Ireland, Italy, Japan, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom, and United States and its territories (Guam, Puerto Rico, and the Virgin Islands). In addition, Czech Republic, Hungary, Poland, and South Korea joined the OECD in 1996.

Organization of Petroleum Exporting Countries (OPEC): Countries that have organized for the purpose of negotiating with oil companies on matters of oil production, prices, and future concession rights. Current members are Algeria, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, and Venezuela.

Oxygenated Motor Gasoline: See **Motor Gasoline**, **Finished**.

Oxygenates: Any substance which, when added to motor gasoline, increases the amount of oxygen in that motor gasoline blend. Through a series of waivers and interpretive rules, the Environmental Protection Agency (EPA) has determined the allowable limits for oxygenates in unleaded gasoline. The "Substantially Similar" Interpretive Rules (56 FR [February 11, 1991]) allows blends of aliphatic alcohols other than methanol and aliphatic ethers, provided the oxygen content does not exceed 2.7 percent by weight. The "Substantially Similar" Interpretive Rules also provide for blends of methanol up to 0.3 percent by volume exclusive of other oxygenates, and butanol or alcohols of a higher molecular weight up to 2.75 percent by weight. Individual waivers pertaining to the use of oxygenates in unleaded motor gasoline have been issued by the EPA. They include:

- *Fuel Ethanol.* Blends of up to 10 percent by volume anhydrous ethanol (200 proof).
- *Methanol.* Blends of methanol and gasoline-grade tertiary butyl alcohol (GTBA) such that the total oxygen content does not exceed 3.5 percent by weight and the ratio of methanol to GTBA is less than or equal to 1. It is also specified that this blended fuel must meet ASTM volatility specifications.
  Blends of up to 5.0 percent by volume methanol with a minimum of 2.5 percent by volume co-solvent alcohols having carbon number of 4 or less (i.e., ethanol, propanol, butanol, and/or GTBA). The total oxygen must not exceed 3.7 percent by weight, and the blend must meet ASTM volatility specifications as well as phase separation and alcohol purity specifications.
- *MTBE (Methyl tertiary butyl ether).* Blends up to 15.0 percent by volume MTBE that must meet the ASTM D4814 specifications. Blenders must take precautions that the blends are not used as base gasolines for other oxygenated blends.

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

Petrochemical Feedstocks: Chemical feedstocks derived from petroleum principally for the manufacture of chemicals, synthetic rubber, and a variety of plastics.

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

Petroleum Coke: A residue that is the final product of the condensation process in cracking. The product is either marketable petroleum coke or catalyst petroleum coke.

Petroleum Coke, Catalyst: The carbonaceous residue that is deposited on and deactivates the catalyst used in many catalytic operations (e.g., catalytic cracking). Carbon is deposited on the catalyst, thus deactivating the catalyst. The catalyst is reactivated by burning off the carbon, which is used as a fuel in the refining process. That carbon or coke is not recoverable in a concentrated form.

Petroleum Coke, Marketable: Those grades of coke produced in delayed or fluid cokers that may be recovered as relatively pure carbon. Marketable petroleum coke may be sold as is or may be further purified by calcining.

Petroleum Consumption: The sum of all refined petroleum products supplied. For each refined petroleum product, the amount supplied is calculated by adding production and imports, then subtracting changes in primary stocks (net withdrawals are a plus quantity and net additions are a minus quantity) and exports.

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

Petroleum Products: Products 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, petrochemical feedstocks, special naphthas, lubricants, waxes, petroleum coke, asphalt, road oil, still gas, and miscellaneous products.

Petroleum Products Supplied: See **Petroleum Consumption**.

Petroleum Stocks, Primary: For individual products, quantities that are held at refineries, in pipelines, and at bulk terminals that have a capacity of 50,000 barrels or more, or that are in transit thereto. Stocks held by product retailers and resellers, as well as tertiary stocks held at the point of consumption, are excluded. Stocks of individual products held at gas processing plants are excluded from individual product estimates but are included in other oils estimates and total.

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

Pipeline Fuel: Gas consumed in the operation of pipelines, primarily in compressors.

Primary Consumption: See **Energy Consumption, End-Use.**

Propane: A normally gaseous straight-chain hydrocarbon (C_3H_8). It is a colorless paraffinic gas that boils at a temperature of -43.67° F. It is extracted from natural gas or refinery gas streams. It includes all products designated in ASTM Specification D1835 and Gas Processors Association Specifications for commercial propane and HD-5 propane.

Propylene: An olefinic hydrocarbon (C_3H_6) recovered from refinery or petrochemical processes.

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

Refinery (petroleum): An installation that manufactures finished petroleum products from crude oil, unfinished oils, natural gas liquids, other hydrocarbons, and alcohol.

Renewable Energy: Energy obtained from sources that are essentially inexhaustible (unlike, for example, the fossil fuels, of which there is a finite supply). Renewable sources of energy include wood, waste, photovoltaic, and solar thermal energy.

Repressuring: The injection of a pressurized fluid (such as air, gas, or water) into oil and gas reservoir formations to effect greater ultimate recovery.

Residential Sector: The residential sector is considered to consist of all private residences, whether occupied or vacant, owned or rented, including single-family homes, multifamily housing units, and mobile homes. Secondary homes, such as summer homes, are also included. Institutional housing, such as school dormitories, hospitals, and military barracks, generally are not included in the residential sector; they are included in the commercial sector.

Residual Fuel Oil: The heavier oils that remain after the distillate fuel oils and lighter hydrocarbons are distilled away in refinery operations and that conform to ASTM Specifications D396 and 975. Included are No. 5, a residual fuel oil of medium viscosity; Navy Special, for use in steam-powered vessels in government service and in shore power plants; and No. 6, which includes Bunker C fuel oil and is used for commercial and industrial heating, for electricity generation, and to power ships. Imports of residual fuel oil include imported crude oil burned as fuel.

Road Oil: Any heavy petroleum oil, including residual asphaltic oil used as a dust palliative and surface treatment on roads and highways. It is generally produced in six grades, from 0, the most liquid, to 5, the most viscous.

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

Short Ton (coal): A unit of weight equal to 2,000 pounds.

SIC: See **Standard Industrial Classification**.

Solar Energy: The radiant energy of the sun, which can be converted into other forms of energy, such as heat or electricity.

Standard Industrial Classification (SIC): A set of codes developed by the Office of Management and

Budget which categorizes industries into groups with similar economic activities.

Startup Test Phase of Nuclear Power Plant: A nuclear power plant that has been licensed by the Nuclear Regulatory Commission to operate but is still in the initial testing phase, during which the 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 power plant in the rate base calculation.

Steam-Electric Power Plant: A plant in which the prime mover is a steam turbine. The steam used to drive the turbine is produced in a boiler where fossil fuels are burned.

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

Supplemental Gaseous Fuels: Any gaseous substance that, introduced into or commingled with natural gas, increases the volume available for disposition. Such substances include, but are not limited to, propane-air, refinery gas, coke oven gas, still gas, manufactured gas, biomass gas, or air or inert gases added for Btu stabilization.

Synthetic Natural Gas (SNG): A manufactured product chemically similar in most respects to natural gas, resulting from the conversion or reforming of petroleum hydrocarbons. It may easily be substituted for, or interchanged with, pipeline quality natural gas. Also referred to as substitute natural gas.

Total Consumption: See **Energy Consumption, End-Use.**

Transportation Sector: The transportation sector consists of private and public vehicles that move people and commodities. Included are automobiles, trucks, buses, motorcycles, railroads and railways (including streetcars), aircraft, ships, barges, and natural gas pipelines.

Unaccounted-for Crude Oil: Arithmetic difference between the calculated supply and the calculated disposition of crude oil. The calculated supply is the sum of crude oil production and imports, less changes in crude oil stocks. The calculated disposition of crude oil is the sum of crude oil input to refineries, crude oil exports, crude oil burned as fuel, and crude oil losses.

Underground Storage: The storage of natural gas in underground reservoirs at a different location from which it was produced.

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

U.S.S.R.: The Union of Soviet Socialist Republics consisted of 15 constituent republics: Armenia, Azerbaijan, Belarus, Estonia, Georgia, Kazakstan, Kyrgyzstan, Latvia, Lithuania, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan. As a political entity, the U.S.S.R. ceased to exist as of December 31, 1991.

Vented Natural Gas: Gas released into the air on the base site or at processing plants.

Wellhead Price: The value of crude oil or natural gas at the mouth of the well.

Well Servicing Unit: Truck-mounted equipment generally used for downhole services after a well is drilled. Services include well completions and recompletions, maintenance, repairs, workovers, and well plugging and abandonments. Jobs range from minor operations, such as pulling the rods and rod pumps out of an oil well, replacing the pump and rerunning the assemblage into the well, to major workovers, such as milling out and repairing collapsed casing. Well depth and characteristics determine the type of equipment used.

Wind Energy (as used at electric utilities): The kinetic energy of wind converted at electric utilities into mechanical energy by wind turbines (i.e., blades rotating from a hub) that drive generators to produce electricity for distribution.

Wood and Waste (as used at electric utilities): Wood energy, garbage, bagasse, sewerage gas, and other industrial, agricultural, and urban refuse used to generate electricity for distribution.

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

Working Gas: The gas in a reservoir that is in addition to the base (cushion) gas. It may or may not be completely withdrawn during any particular withdrawal season. Conditions permitting, the total working capacity could be used more than once during any given season.

Energy Plugs:

U.S. Propane Markets
State Energy Prices