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January 2004

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Energy Plug



Annual Energy Outlook 2004

Total primary energy consumption in the United States is projected to increase from 98 quadrillion British thermal units (Btu) in 2002 to 137 quadrillion Btu in 2025, an average annual increase of 1.5 percent, according to the *Annual Energy Outlook 2004 (AEO2004)*. U.S. energy consumption is expected to increase more rapidly than domestic energy supply, and net imports will constitute 36 percent of consumption in 2025, up from 26 percent in 2002.

Economic Growth. In the *AEO2004* reference case, U.S. gross domestic product (GDP) grows at an average annual rate of 3.0 percent from 2002 to 2025, slightly lower than the growth rate of 3.1 percent per year for the same period in *AEO2003*.

Petroleum. The trend of increasing U.S. dependence on imported oil is expected to continue. Net imports, which accounted for 37 percent of total U.S. petroleum demand in 1980 and 53 percent in 2002, are expected to reach 70 percent in 2025. Petroleum demand is projected to grow at an average annual rate of 1.6 percent, from 20 million barrels per day in 2002 to 28 million barrels per day in 2025, led by the transportation sector, which is expected to account for 74 percent of petroleum demand in 2025. Crude oil production increases from 5.7 million barrels per day in 2002 to 6.1 million barrels per day in 2008 as a result of higher offshore production. Beginning in 2009, however, U.S. crude oil production declines gradually, falling to 4.6 million barrels per day in 2025. The average world oil price is forecast to decline from current levels to \$23 per barrel in 2005, and then rise slowly to \$27 per barrel in 2025 (prices in 2002 dollars).

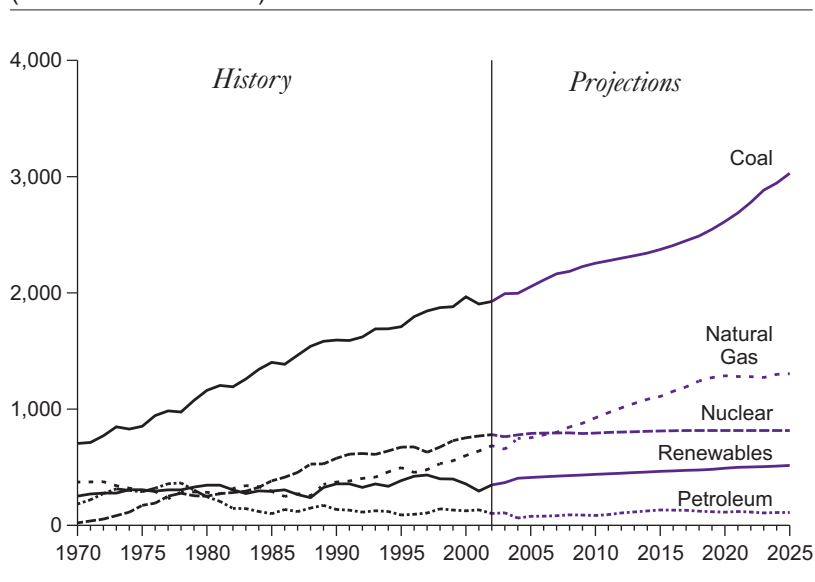
Natural Gas. *AEO2004* forecasts greater dependence on more costly supplies of natural gas, such as imports of liquefied natural gas (LNG), and remote resources from Alaska and the Mackenzie Delta in Canada. Demand for natural gas is projected to increase at an average annual rate of 1.4 percent between 2002 and 2025, primarily from growth in demand for electricity generation and industrial applications. Growth slows after 2020 as rising prices for natural gas make it less competitive for electricity generation.

Average wellhead prices for natural gas are projected to increase from \$2.95 per thousand cubic feet (2002 dollars) in 2002 to \$3.40 in 2010. With the exception of a temporary decline in prices just before 2020, when an Alaska pipeline is expected to be completed, wellhead prices are projected to increase gradually after 2010, reaching \$4.40 per thousand

cubic feet in 2025. LNG imports, Alaskan production, and production in the 48 States from nonconventional sources are not expected to increase enough to offset the impacts of resource depletion and increased demand.

Coal. In *AEO2004*, total coal use is projected to grow by 1.7 percent per year, compared with the *AEO2003* projection of 1.4 percent per year. The primary reason for the

Electricity Generation by Fuel, 1970-2025
(Billion Kilowatthours)



Source: Energy Information Administration.

change in the rate of growth is a substantial increase in projected coal demand for electricity generation resulting from higher natural gas prices. Coal is projected to play a more important role in future additions to electricity generation capacity, particularly in the later years of the forecast. Production from mines west of the Mississippi River is expected to provide the largest share of the incremental production. In 2025, nearly two-thirds of coal production is projected to originate from the western States.

The average minemouth price of coal is projected to decline from \$17.90 (2002 dollars) in 2002 to a low of \$16.19 per short ton in 2016. Prices decline because of increased mine productivity, a shift to western production, declines in rail transportation costs, and competitive pressures on labor costs. After 2016, however, average minemouth coal prices rise as productivity improvements slow and the industry faces increasing costs to open new mining areas. In 2025, the average minemouth price is projected to be \$16.57 per short ton, still lower than the real price in 2002.

Electricity. Total electricity consumption, including purchases from electric power producers and on-site generation, is projected to grow at an average rate of 1.8 percent per year, reaching 5,485 billion kilowatthours in 2025. Growth in electricity use for computers, office equipment, and electrical appliances in the residential and commercial sectors is partially offset by improved efficiency in these and other, more traditional electrical applications, by the effects of demand-side management programs, and by slower growth in electricity demand for some applications, such as air conditioning.

Average delivered electricity prices are projected to decline from 7.2 cents per kilowatthour in 2002 to a low of 6.6 cents (2002 dollars) in 2007 as a result of cost reductions in an increasingly competitive market—where excess capacity has resulted from the recent boom in construction—and continued declines in coal prices. After 2007, average real electricity prices are projected to increase, reaching 6.9 cents per kilowatthour in 2025 (13.2 cents in nominal dollars).

The natural gas share of electricity net generation is projected to increase from 18 percent in 2002 to 22 percent in 2025, while the share from coal will rise from 50 percent in 2002 to 52 percent in 2025. Total renewable electricity net generation is projected to increase from 347 billion kilowatthours in 2002 to 518 billion kilowatthours in 2025, at an average annual growth rate of 1.9 percent.

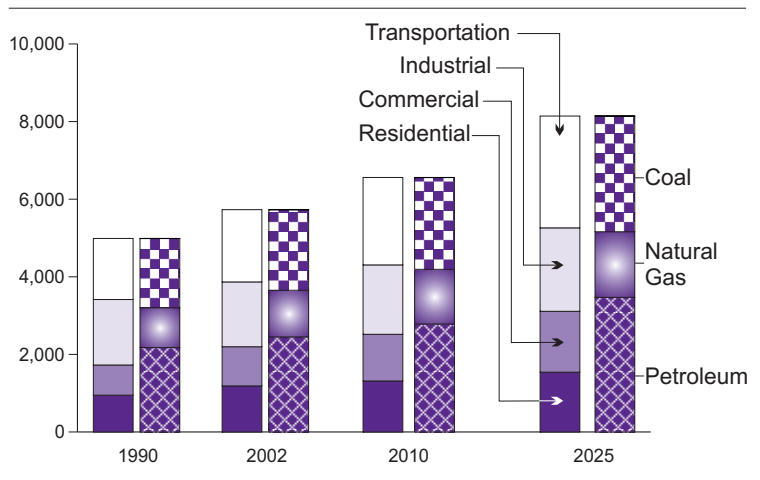
Nuclear Energy. Nuclear generating capacity is projected to increase from 99 gigawatts in 2002 to 103 gigawatts in 2025. In a departure from *AEO2003*, no U.S. nuclear units are retired in the *AEO2004* reference case. *AEO2004* assumes that Browns Ferry Unit 1 will begin operation in 2007 but projects that no new nuclear facilities will be built before 2025.

Renewable Energy. Total renewable fuel consumption, including ethanol for gasoline blending, is projected to grow at an average rate of 1.9 percent per year, from 6 quadrillion Btu in 2002 to 9 quadrillion Btu in 2025, primarily as a result of State mandates for renewable electricity generation. About 60 percent of the projected demand in 2025 is for grid-related electricity generation, and the rest is for dispersed heating and cooling, industrial uses, and fuel blending. Growth in renewable energy production is forecast for

biomass, ethanol for gasoline blending, conventional hydroelectric, geothermal, and wind sources.

Energy Intensity. Energy intensity—defined as energy use per dollar of gross domestic product—is projected to decline at an average annual rate of 1.5 percent in the *AEO2004* forecast, with efficiency gains and structural shifts in the economy offsetting growth in demand for energy services.

Projected U.S. Carbon Dioxide Emissions by Sector and by Fuel, 1990-2025
(Million Metric Tons)



Source: Energy Information Administration.

Carbon Dioxide Emissions. Carbon dioxide emissions from energy use are projected to increase from 5,729 million metric tons in 2002 to 8,142 million metric tons in 2025 in *AEO2004*, an average annual increase of 1.5 percent. By sector, projected carbon dioxide emissions from residential, commercial, and electric power sector sources are higher in *AEO2004* than they were in *AEO2003* because of an updated estimate of 2002 emissions and higher projected energy consumption in each of the three sectors—particularly, coal consumption in the electric power sector. Projected carbon dioxide emissions from the industrial and transportation sectors are lower in the *AEO2004* forecast, because of lower projections for industrial natural gas consumption and the new corporate average fuel economy (CAFE) standards for light trucks as well as other changes in the transportation sector that lead to lower petroleum consumption.

Annual Energy Outlook 2004 DOE/EIA-0383(2004); 270 pages, 33 tables, 120 figures. The *Annual Energy Outlook 2004* is available on the EIA Web site at <http://www.eia.doe.gov>. Under "Forecasts" select "Annual." Contact the webmaster at wmaster@eia.doe.gov or call 202-586-8959 if you have problems. An order form is provided at the end of this publication if you would like to receive a print copy. Questions about the contents of the report should be directed to Paul Holtberg, Office of Integrated Analysis and Forecasting, at paul.holtberg@eia.doe.gov or 202-586-1284. For general information about energy, contact the National Energy Information Center at infoctr@eia.doe.gov or 202-586-8800.

Section 1. Energy Overview

Energy production during October 2003 totaled 6.0 quadrillion Btu, a 2.4 percent increase compared with the level of production during October 2002. Production of conventional hydroelectric power increased 11.5 percent; crude oil increased 5.2 percent; natural gas (dry) increased 4.7 percent; and coal increased 1.7 percent, compared with the level of production during October 2002

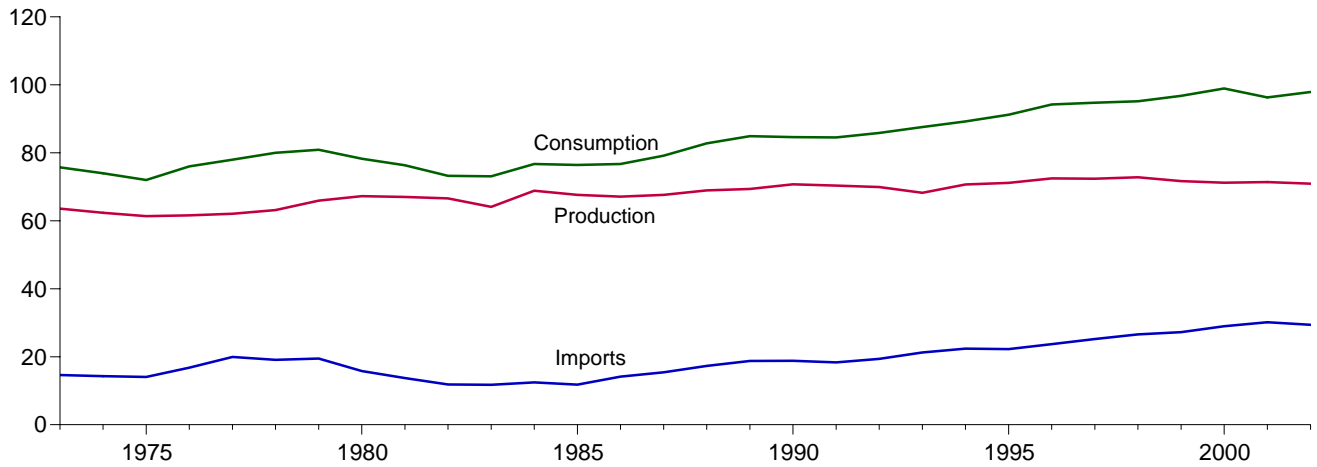
Energy consumption during October 2003 totaled 7.7 quadrillion Btu, a 1.2 percent decrease compared with the level of consumption during October 2002. Consumption of natural gas decreased 3.6 percent; coal decreased 3.4

percent; nuclear electric power decreased 2.8 percent; and petroleum increased 1.9 percent, compared with the level 1 year earlier.

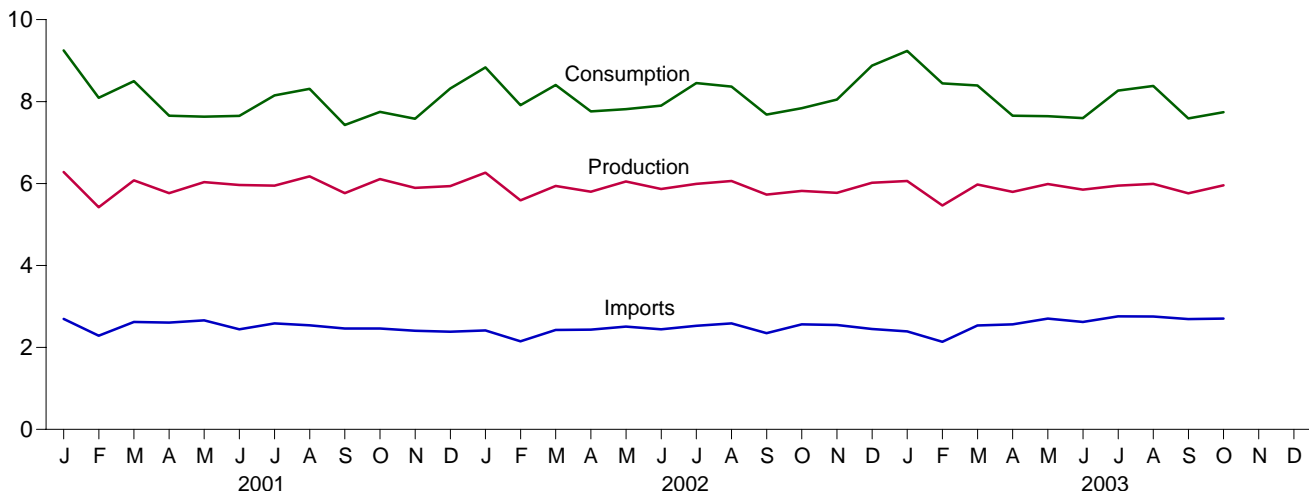
Net imports of energy during October 2003 totaled 2.4 quadrillion Btu, 5.5 percent above the level of net imports 1 year earlier. Coal net exports decreased 49.4 percent; crude oil net imports increased 6.5 percent; natural gas net imports decreased 5.8 percent; and petroleum products net imports increased 0.4 percent, compared with the level in October 2002.

Figure 1.1 Energy Overview
(Quadrillion Btu)

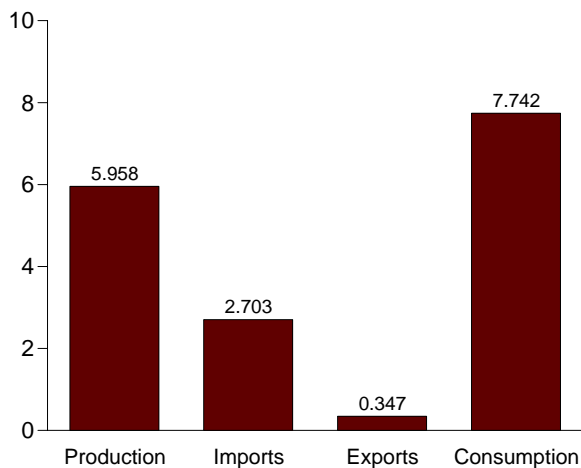
Consumption, Production, and Imports, 1973-2002



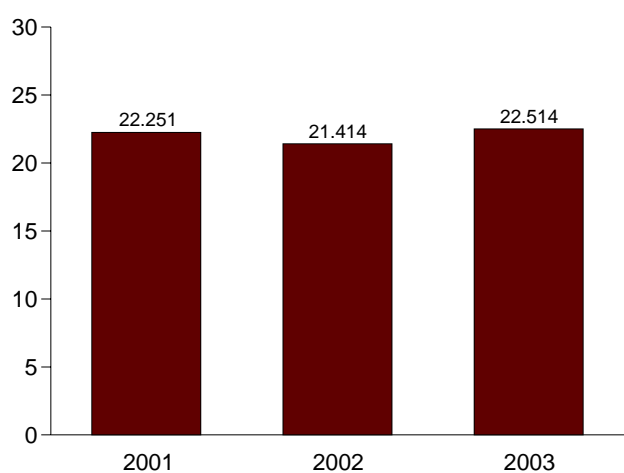
Consumption, Production, and Imports, Monthly



Overview, October 2003



Net Imports, January-October



Note: Because vertical scales differ, graphs should not be compared.
Web Page: <http://www.eia.doe.gov/emeu/mer/overview.html>.
Sources: Tables 1.1 and 1.4.

Table 1.1 Energy Overview
(Quadrillion Btu)

	Production	Imports	Exports	Adjustments ^a	Consumption
1973 Total	63.585	14.613	2.033	-0.456	75.708
1974 Total	62.372	14.304	2.203	-.482	73.991
1975 Total	61.357	14.032	2.323	-1.067	71.999
1976 Total	61.602	16.760	2.172	-.178	76.012
1977 Total	62.052	19.948	2.052	-1.948	78.000
1978 Total	63.137	19.106	1.920	-.337	79.986
1979 Total	65.948	19.460	2.855	-1.649	80.903
1980 Total	67.241	15.796	3.695	-1.054	78.289
1981 Total	67.007	13.719	4.307	-.084	76.335
1982 Total	66.574	11.861	4.608	-.594	73.234
1983 Total	64.106	11.752	3.693	-.900	73.066
1984 Total	68.832	12.471	3.786	-.824	76.693
1985 Total	67.647	11.781	4.196	1.186	76.417
1986 Total	67.087	14.151	4.021	-.495	76.722
1987 Total	67.608	15.398	3.812	-.037	79.156
1988 Total	68.951	17.296	4.366	.894	82.774
1989 Total	69.364	18.766	4.661	1.416	84.886
1990 Total	70.729	18.817	4.752	-.189	84.605
1991 Total	70.362	18.335	5.141	.967	84.522
1992 Total	69.933	19.372	4.937	1.498	85.866
1993 Total	68.262	21.273	4.258	2.303	87.579
1994 Total	70.676	22.390	4.061	.243	89.248
1995 Total	71.156	22.260	4.511	2.315	91.221
1996 Total	72.472	23.702	4.633	2.683	94.224
1997 Total	72.389	25.215	4.514	1.637	94.727
1998 Total	72.787	26.581	4.299	.078	95.146
1999 Total	71.652	27.252	3.715	1.585	96.774
2000 Total	71.218	28.974	4.006	2.756	98.942
2001 January	6.280	2.697	.346	.619	9.250
February	5.422	2.285	.285	.670	8.093
March	6.079	2.624	.289	.086	8.500
April	5.764	2.605	.313	-.398	7.657
May	6.033	2.663	.356	-.710	7.630
June	5.964	2.441	.303	-.451	7.650
July	5.950	2.588	.278	-.109	8.150
August	6.173	2.541	.338	-.066	8.311
September	5.767	2.460	.291	-.508	7.428
October	6.108	2.461	.314	-.504	7.750
November	5.896	2.408	.328	-.393	7.583
December	5.936	2.384	.329	.326	8.317
Total	71.372	30.157	3.770	-1.439	96.320
2002 January	R 6.265	2.413	.292	R .450	R 8.836
February	R 5.590	2.148	.290	R .464	R 7.913
March	R 5.940	2.427	.267	R .305	R 8.406
April	R 5.802	2.434	.292	R -.183	R 7.760
May	R 6.050	2.510	.294	R -.451	R 7.815
June	5.868	2.442	.308	R -.102	R 7.900
July	R 5.993	2.528	.270	R .201	R 8.452
August	R 6.061	2.588	.344	R .062	R 8.367
September	R 5.732	2.349	.301	R -.098	R 7.682
October	R 5.820	2.565	.333	R -.215	R 7.837
November	R 5.774	2.549	.313	R .038	R 8.048
December	R 6.020	2.448	.359	R .767	R 8.877
Total	R 70.916	29.401	3.661	R 1.238	R 97.894
2003 January	6.064	2.392	.372	1.154	9.238
February	5.463	2.137	.296	1.142	8.446
March	5.976	2.534	.312	.194	8.393
April	5.796	2.563	.329	-.376	7.653
May	5.986	2.706	.353	-.695	7.645
June	5.850	2.623	.348	-.527	7.598
July	5.950	2.761	.347	-.094	8.269
August	5.991	2.756	.319	-.046	8.382
September	R 5.761	2.694	.333	R -.531	R 7.590
October	5.958	2.703	.347	-.572	7.742
10-Month Total	58.793	25.869	3.355	-3.352	80.956
2002 10-Month Total	59.121	24.404	2.990	.433	80.968
2001 10-Month Total	59.540	25.364	3.113	-1.371	80.420

^a A balancing item. Includes stock changes, losses, gains, miscellaneous blending components, and unaccounted-for supply.

R=Revised.

Notes: • For definitions, see Notes 1 through 4 at end of section.

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

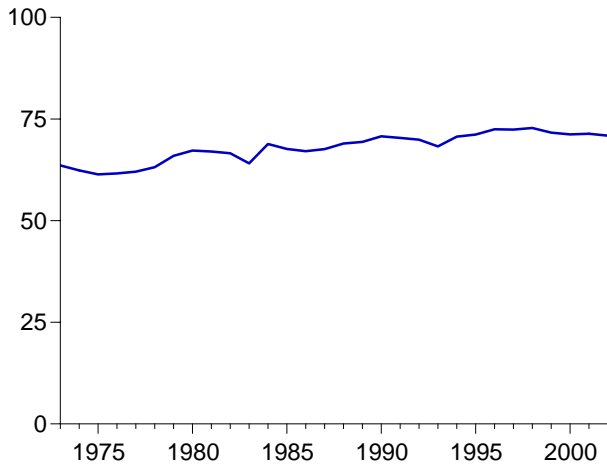
• Geographic coverage is the 50 States and the District of Columbia.

Web Page: <http://www.eia.doe.gov/emeu/mer/overview.html>.

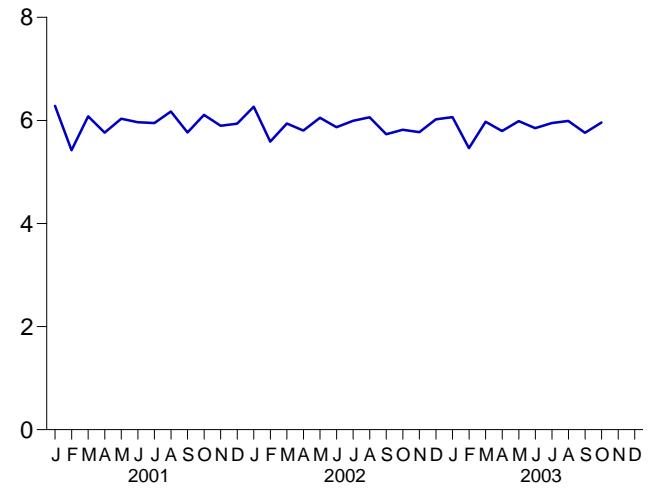
Sources: • **Production:** Table 1.2. • **Consumption:** Table 1.3. • **Imports and Exports:** Tables 3.1b, 4.3, 6.1, 7.1, A2-A6, and Section 2, "Energy Consumption Notes and Sources," Note 5.

Figure 1.2 Energy Production
(Quadrillion Btu)

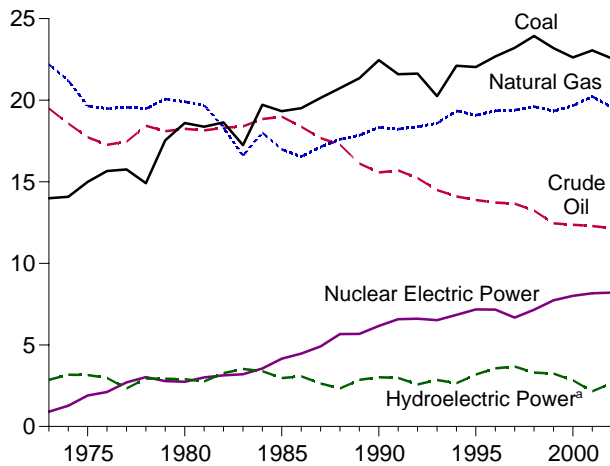
Total, 1973-2002



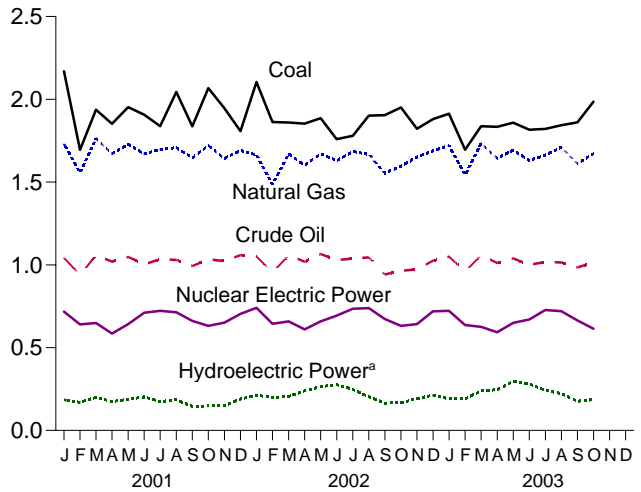
Total, Monthly



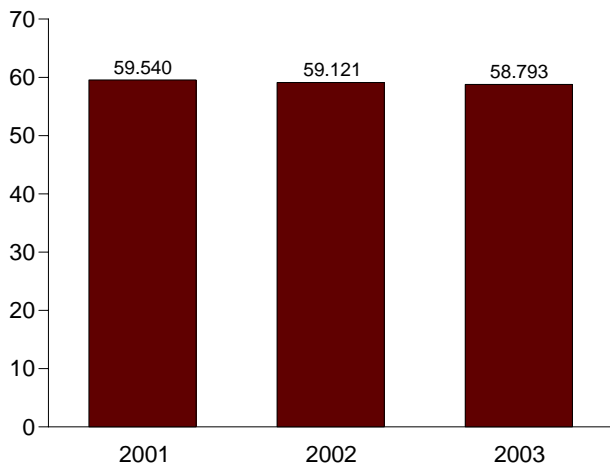
By Major Sources, 1973-2002



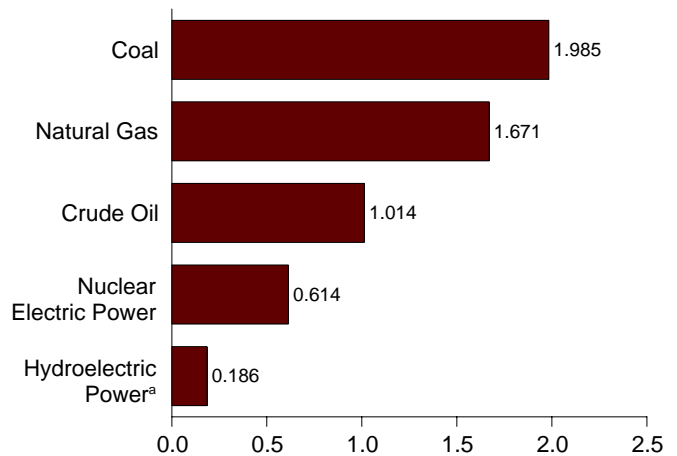
By Major Sources, Monthly



Total, January-October



By Major Sources, October 2003



^aConventional and pumped storage hydroelectric power.
Note: Because vertical scales differ, graphs should not be compared.

Web Page: <http://www.eia.doe.gov/emeu/mer/overview.html>.
Source: Table 1.2.

Table 1.2 Energy Production by Source
(Quadrillion Btu)

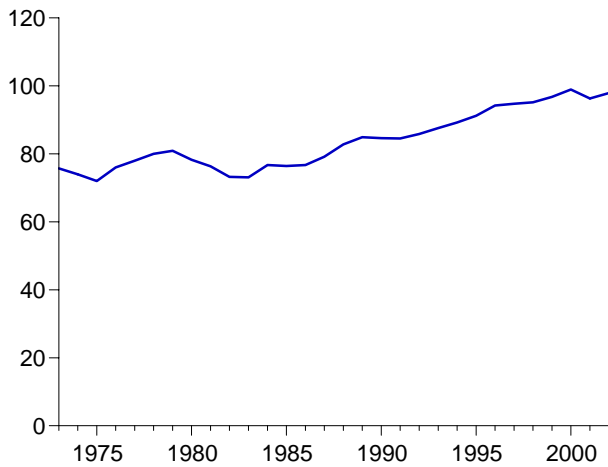
	Fossil Fuels					Nuclear Electric Power	Hydro-electric Pumped Storage ^c	Renewable Energy ^a					Total
	Coal	Natural Gas (Dry)	Crude Oil ^b	Natural Gas Plant Liquids	Total			Conventional Hydroelectric Power	Wood, Waste, Alcohol ^d	Geo-thermal	Solar and Wind	Total	
1973 Total	13.992	22.187	19.493	2.569	58.241	0.910	(e)	2.861	1.529	0.043	NA	4.433	63.585
1974 Total	14.074	21.210	18.575	2.471	56.331	1.272	(e)	3.177	1.540	.053	NA	4.769	62.372
1975 Total	14.989	19.640	17.729	2.374	54.733	1.900	(e)	3.155	1.499	.070	NA	4.723	61.357
1976 Total	15.654	19.480	17.262	2.327	54.723	2.111	(e)	2.976	1.713	.078	NA	4.768	61.602
1977 Total	15.755	19.565	17.454	2.327	55.101	2.702	(e)	2.333	1.838	.077	NA	4.249	62.052
1978 Total	14.910	19.485	18.434	2.245	55.074	3.024	(e)	2.937	2.038	.064	NA	5.039	63.137
1979 Total	17.540	20.076	18.104	2.286	58.006	2.776	(e)	2.931	2.152	.084	NA	5.166	65.948
1980 Total	18.598	19.908	18.249	2.254	59.008	2.739	(e)	2.900	2.485	.110	NA	5.494	67.241
1981 Total	18.377	19.699	18.146	2.307	58.529	3.008	(e)	2.758	2.590	.123	NA	5.471	67.007
1982 Total	18.639	18.319	18.309	2.191	57.458	3.131	(e)	3.266	2.615	.105	NA	5.985	66.574
1983 Total	17.247	16.593	18.392	2.184	54.416	3.203	(e)	3.527	2.831	.129	(s)	6.488	64.106
1984 Total	19.719	18.008	18.848	2.274	58.849	3.553	(e)	3.386	2.880	.165	(s)	6.431	68.832
1985 Total	19.325	16.980	18.992	2.241	57.539	4.076	(e)	2.970	2.864	.198	(s)	6.033	67.647
1986 Total	19.509	16.541	18.376	2.149	56.575	4.380	(e)	3.071	2.841	.219	(s)	6.132	67.087
1987 Total	20.141	17.136	17.675	2.215	57.167	4.754	(e)	2.635	2.823	.229	(s)	5.687	67.608
1988 Total	20.738	17.599	17.279	2.260	57.875	5.587	(e)	2.334	2.937	.217	(s)	5.489	68.951
1989 Total	21.346	17.847	16.117	2.158	57.468	5.602	(e)	2.837	3.062	.317	.077	6.294	69.364
1990 Total	22.456	18.326	15.571	2.175	58.529	6.104	-0.36	3.046	2.662	.336	.089	6.133	70.729
1991 Total	21.594	18.229	15.701	2.306	57.829	6.422	-0.47	3.016	2.702	.346	.093	6.158	70.362
1992 Total	21.629	18.375	15.223	2.363	57.590	6.479	-0.43	2.617	2.847	.349	.094	5.907	69.933
1993 Total	20.249	18.584	14.494	2.408	55.736	6.410	-0.42	2.892	2.804	.364	.097	6.157	68.262
1994 Total	22.111	19.348	14.103	2.391	57.952	6.694	-0.35	2.683	2.939	.338	.104	6.065	70.676
1995 Total	22.029	19.887	13.887	2.442	57.440	7.075	-0.28	3.205	3.068	.294	.102	6.669	71.156
1996 Total	22.684	19.344	13.723	2.530	58.281	7.087	-0.32	3.590	3.127	.316	.104	7.137	72.472
1997 Total	23.211	19.394	13.658	2.495	58.758	6.597	-0.41	3.640	3.006	.325	.104	7.075	72.389
1998 Total	23.935	19.613	13.235	2.420	59.204	7.068	-0.46	3.297	2.835	.328	.101	6.561	72.787
1999 Total	23.186	19.341	12.451	2.528	57.505	7.610	-0.62	3.268	2.885	.331	.115	6.599	71.652
2000 Total	22.623	19.662	12.358	2.611	57.254	7.862	-0.57	2.811	2.907	.317	.123	6.158	71.218
2001 January	2.169	1.732	1.043	.162	5.105	.717	-0.06	.191	.235	.028	.009	.463	6.280
February	1.695	1.557	.939	.181	4.372	.640	-0.07	.177	.207	.024	.009	.418	5.422
March	1.937	1.762	1.057	.212	4.969	.649	-0.08	.208	.224	.027	.011	.470	6.079
April	1.852	1.672	1.020	.205	4.749	.585	-0.08	.183	.218	.025	.012	.438	5.764
May	1.952	1.728	1.048	.221	4.950	.642	-0.06	.195	.216	.024	.012	.447	6.033
June	1.908	1.670	1.003	.214	4.794	.710	-0.08	.210	.219	.025	.013	.467	5.964
July	1.837	1.697	1.034	.220	4.788	.722	-0.09	.183	.226	.027	.012	.449	5.950
August	2.044	1.708	1.029	.226	5.008	.714	-0.07	.192	.228	.026	.012	.459	6.173
September	1.837	1.646	.993	.228	4.704	.662	-0.09	.155	.219	.026	.011	.410	5.767
October	2.068	1.721	1.033	.234	5.056	.631	-0.06	.155	.234	.026	.011	.426	6.108
November	1.947	1.644	1.023	.224	4.838	.651	-0.08	.156	.222	.026	.010	.415	5.896
December	1.807	1.691	1.059	.219	4.776	.704	-0.06	.196	.228	.027	.011	.463	5.936
Total	23.053	20.227	12.282	2.547	58.109	8.028	-0.90	2.201	2.678	.311	.134	5.324	71.372
2002 January	2.104	E 1.664	1.051	.211	5.031	.741	-0.08	R .221	R .238	R .029	.013	R .501	R 6.265
February	1.862	E 1.486	.954	.198	4.500	.644	-0.06	R .204	R .211	R .026	.012	R .453	R 5.590
March	1.860	E 1.669	1.058	.220	4.807	.658	-0.07	R .213	R .228	R .028	.014	R .482	R 5.940
April	1.853	E 1.600	1.019	.215	4.688	.610	-0.06	R .245	R .224	R .025	.016	R .510	R 5.802
May	1.886	E 1.671	1.065	.224	4.847	.658	-0.05	R .270	R .237	R .028	R .016	R .551	R 6.050
June	1.760	E 1.629	1.029	.209	4.627	.693	-0.08	R .285	R .228	R .026	.017	R .556	R 5.868
July	1.780	E 1.685	1.037	.213	4.716	.735	-0.10	R .258	R .250	R .029	.015	R .551	R 5.993
August	1.901	E 1.668	1.045	.224	4.838	.739	-0.09	R .213	R .237	R .028	.016	R .494	R 6.061
September	1.905	E 1.554	.942	.212	4.612	.673	-0.08	R .173	R .242	R .027	.013	R .454	R 5.732
October	1.951	E 1.596	.964	.217	4.727	.632	-0.07	R .174	R .253	R .028	.013	R .468	R 5.820
November	1.822	E 1.651	.974	.212	4.658	.642	-0.07	R .200	R .242	R .027	.012	R .480	R 5.774
December	1.880	E 1.689	1.025	.203	4.797	.720	-0.07	R .219	R .251	R .028	.013	R .510	R 6.020
Total	22.564	E 19.561	12.163	2.559	56.848	8.145	R -.088	R 2.675	R 2.839	R .328	R .169	R 6.011	R 70.916
2003 January	1.913	E 1.720	E 1.050	.203	4.886	.723	-0.08	.199	.226	.026	.011	.462	6.064
February	1.696	E 1.543	E .961	.189	4.388	.636	-0.08	.199	.212	.023	.012	.446	5.463
March	1.837	E 1.732	E 1.059	.200	4.829	.626	-0.08	.246	.242	.026	.016	.529	5.976
April	1.834	E 1.644	E 1.011	.191	4.680	.593	-0.06	.253	.235	.024	.017	.528	5.796
May	1.859	E 1.693	E 1.040	.177	4.769	.649	-0.06	.303	.233	.024	.015	.574	5.986
June	1.816	E 1.630	E 1.000	.176	4.623	.670	-0.08	.288	.236	.025	.015	.565	5.850
July	1.821	E 1.663	E 1.018	.191	4.693	.727	-0.08	.250	.248	.025	.015	.537	5.950
August	1.843	E 1.710	E 1.014	.198	4.765	.721	-0.08	.231	.243	.025	.013	.513	5.991
September	1.861	RF 1.612	E .984	.197	R 4.654	R .664	R -.008	R .184	R .228	R .025	R .014	R .451	R 5.761
October	1.985	F 1.671	E 1.014	.210	4.881	.614	-0.08	.194	.236	.026	.015	.471	5.958
10-Month Total	18.465	E 16.619	E 10.152	1.932	47.168	6.623	-0.75	2.348	2.339	.248	.142	5.077	58.793
2002 10-Month Total	18.862	E 16.221	10.165	2.144	47.392	6.784	-0.75	2.256	2.347	.273	.144	5.020	59.121
2001 10-Month Total	19.299	16.893	10.200	2.104	48.495	6.673	-0.75	1.849	2.227	.258	.112	4.446	59.540

a End-use consumption and electricity net generation.
b Includes lease condensate.
c Pumped storage facility production minus energy used for pumping.
d Alcohol is ethanol blended into motor gasoline.
e Included in conventional hydroelectric power.
R=Revised. E=Estimate. NA=Not available. (s)=Less than +0.5 trillion Btu and greater than -0.5 trillion Btu. F=Forecast.
Notes: • See Note 1 at end of section. • Totals may not equal sum of

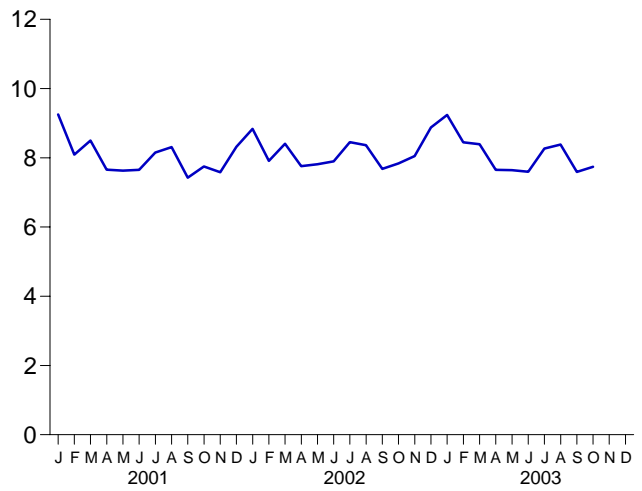
components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.
Web Page: <http://www.eia.doe.gov/emeu/mer/overview.html>.
Sources: • Coal: Tables 6.1 and A5. • Natural Gas (Dry): Tables 4.1 and A4. • Crude Oil and Natural Gas Plant Liquids: Tables 3.1a and A2. • Nuclear Electric Power and Hydroelectric Pumped Storage: Tables 7.2a and A6. • Renewable Energy: Table 10.1.

Figure 1.3 Energy Consumption
(Quadrillion Btu)

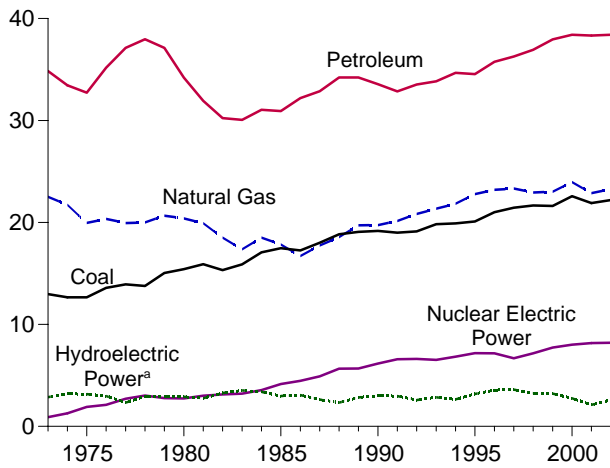
Total, 1973-2002



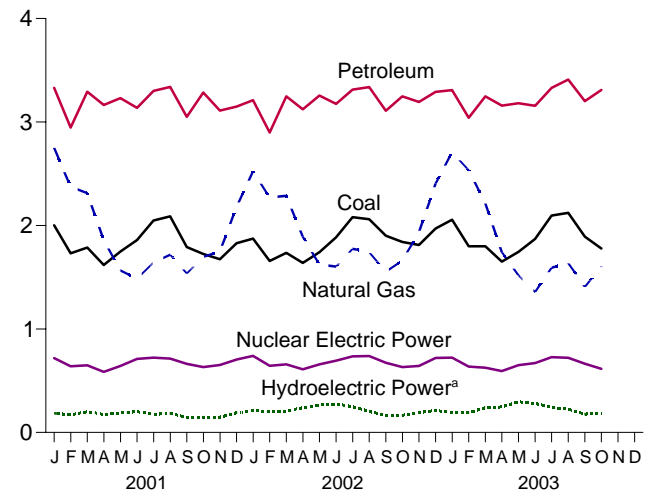
Total, Monthly



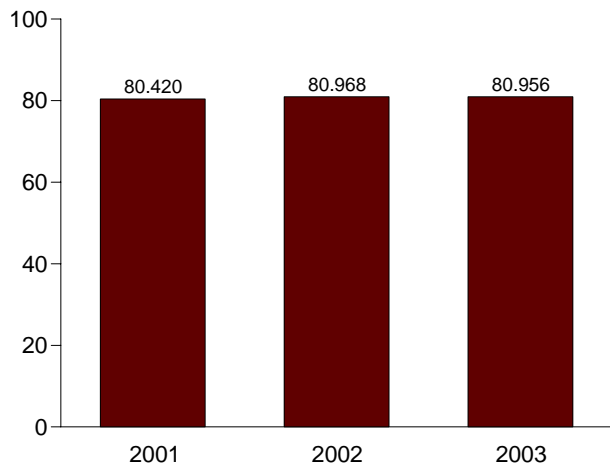
By Major Sources, 1973-2002



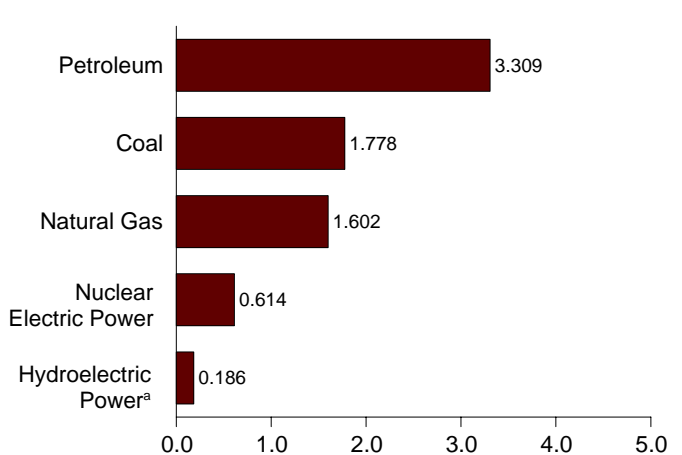
By Major Sources, Monthly



Total, January-October



By Major Sources, October 2003



^aConventional and pumped storage hydroelectric power.
Note: Because vertical scales differ, graphs should not be compared.

Web Page: <http://www.eia.doe.gov/emeu/mer/overview.html>.
Source: Table 1.3.

Table 1.3 Energy Consumption by Source
(Quadrillion Btu)

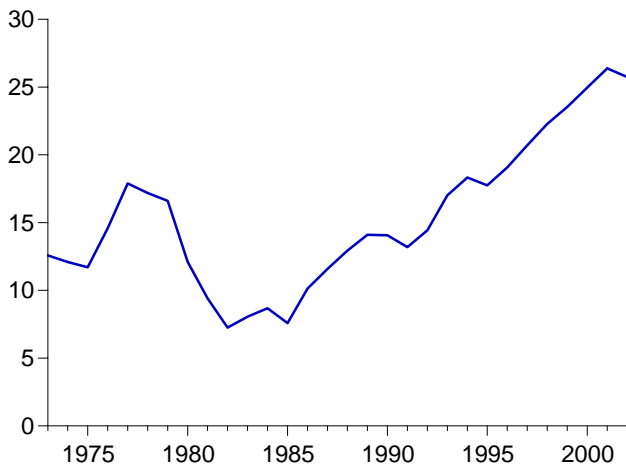
	Fossil Fuels				Nuclear Electric Power	Hydro-electric Pumped Storage ^e	Renewable Energy ^a					Total ^{f,g}
	Coal	Natural Gas ^b	Petro-leum ^c	Total ^d			Conventional Hydroelectric Power	Wood, Waste, Alcohol ^f	Geo-thermal	Solar and Wind	Total	
1973 Total	12.971	22.512	34.840	70.316	0.910	(h)	2.861	1.529	0.043	NA	4.433	75.708
1974 Total	12.663	21.732	33.455	67.906	1.272	(h)	3.177	1.540	.053	NA	4.769	73.991
1975 Total	12.663	19.948	32.731	65.355	1.900	(h)	3.155	1.499	.070	NA	4.723	71.999
1976 Total	13.584	20.345	35.175	69.104	2.111	(h)	2.976	1.713	.078	NA	4.768	76.012
1977 Total	13.922	19.931	37.122	70.989	2.702	(h)	2.333	1.838	.077	NA	4.249	78.000
1978 Total	13.766	20.000	37.965	71.856	3.024	(h)	2.937	2.038	.064	NA	5.039	79.986
1979 Total	15.040	20.666	37.123	72.892	2.776	(h)	2.931	2.152	.084	NA	5.166	80.903
1980 Total	15.423	20.394	34.202	69.984	2.739	(h)	2.900	2.485	.110	NA	5.494	78.289
1981 Total	15.908	19.928	31.931	67.750	3.008	(h)	2.758	2.590	.123	NA	5.471	76.335
1982 Total	15.322	18.505	30.231	64.036	3.131	(h)	3.266	2.615	.105	NA	5.985	73.234
1983 Total	15.894	17.357	30.054	63.290	3.203	(h)	3.527	2.831	.129	(s)	6.488	73.066
1984 Total	17.071	18.507	31.051	66.617	3.553	(h)	3.386	2.880	.165	(s)	6.431	76.693
1985 Total	17.478	17.834	30.922	66.221	4.076	(h)	2.970	2.864	.198	(s)	6.033	76.417
1986 Total	17.260	16.708	32.196	66.148	4.380	(h)	3.071	2.841	.219	(s)	6.132	76.722
1987 Total	18.008	17.744	32.865	68.626	4.754	(h)	2.635	2.823	.229	(s)	5.687	79.156
1988 Total	18.846	18.552	34.222	71.660	5.587	(h)	2.334	2.937	.217	(s)	5.489	82.774
1989 Total	19.070	19.712	34.211	73.023	5.602	(h)	2.837	3.062	.317	.077	6.294	84.886
1990 Total	19.173	19.730	33.553	72.460	6.104	-.036	3.046	2.662	.336	.089	6.133	84.605
1991 Total	18.992	20.149	32.845	71.996	6.422	-.047	3.016	2.702	.346	.093	6.158	84.522
1992 Total	19.122	20.835	33.527	73.519	6.479	-.043	2.617	2.847	.349	.094	5.907	85.866
1993 Total	19.835	21.351	33.841	75.055	6.410	-.042	2.892	2.804	.364	.097	6.157	87.579
1994 Total	19.909	21.842	34.670	76.480	6.694	-.035	2.683	2.939	.338	.104	6.065	89.248
1995 Total	20.089	22.784	34.553	77.488	7.075	-.028	3.205	3.068	.294	.102	6.669	91.221
1996 Total	21.002	23.197	35.757	79.979	7.087	-.032	3.590	3.127	.316	.104	7.137	94.224
1997 Total	21.445	23.328	36.266	81.086	6.597	-.041	3.640	3.006	.325	.104	7.075	94.727
1998 Total	21.656	22.936	36.934	81.592	7.068	-.046	3.297	2.835	.328	.101	6.561	95.146
1999 Total	21.623	23.010	37.960	82.650	7.610	-.062	3.268	2.885	.331	.115	6.599	96.774
2000 Total	22.580	23.952	38.404	85.001	7.862	-.057	2.811	2.907	.317	.123	6.158	98.942
2001 January	2.001	2.751	3.329	8.084	.717	-.006	.191	.235	.028	.009	.463	9.250
February	1.730	2.374	2.947	7.053	.640	-.007	.177	.207	.024	.009	.418	8.093
March	1.787	2.313	3.293	7.395	.649	-.008	.208	.224	.027	.011	.470	8.500
April	1.619	1.857	3.164	6.645	.585	-.008	.183	.218	.025	.012	.438	7.657
May	1.748	1.566	3.231	6.548	.642	-.006	.195	.216	.024	.012	.447	7.630
June	1.859	1.486	3.137	6.484	.710	-.008	.210	.219	.025	.013	.467	7.650
July	2.048	1.643	3.301	6.991	.722	-.009	.183	.226	.027	.012	.449	8.150
August	2.088	1.717	3.339	7.147	.714	-.007	.192	.228	.026	.012	.459	8.311
September	1.791	1.536	3.049	6.376	.662	-.009	.155	.219	.026	.011	.410	7.428
October	1.725	1.698	3.285	6.711	.631	-.006	.155	.234	.026	.011	.426	7.750
November	1.673	1.748	3.110	6.534	.651	-.008	.156	.222	.026	.010	.415	7.583
December	1.828	2.182	3.149	7.160	.704	-.006	.196	.228	.027	.011	.463	8.317
Total	21.897	22.869	38.333	83.129	8.028	-.090	2.201	2.678	.311	.134	5.324	96.320
2002 January	R 1.873	R 2.522	3.211	R 7.606	.741	-.008	R .221	R .238	R .029	.013	R .501	R 8.836
February	R 1.656	R 2.270	2.899	R 6.828	.644	-.006	R .204	R .211	R .026	.012	R .453	R 7.913
March	R 1.736	R 2.287	3.247	R 7.278	.658	-.007	R .213	R .228	R .028	.014	R .482	R 8.406
April	R 1.638	R 1.892	3.123	R 6.652	.610	-.006	R .245	R .224	R .025	.016	R .510	R 7.760
May	R 1.741	1.621	3.256	R 6.622	.658	R -.005	R .270	R .237	R .028	R .016	R .551	R 7.815
June	R 1.886	R 1.602	3.174	R 6.665	.693	-.009	R .285	.228	R .026	.017	.556	R 7.900
July	R 2.081	R 1.774	3.313	R 7.177	.735	-.010	R .258	R .250	R .029	.015	R .551	R 8.452
August	R 2.061	R 1.742	3.337	R 7.147	.739	-.009	R .213	R .237	R .028	.016	R .494	R 8.367
September	R 1.900	R 1.554	3.108	R 6.571	.673	-.008	R .173	R .242	R .027	.013	R .454	R 7.682
October	R 1.841	R 1.662	3.248	R 6.757	.632	-.007	R .174	R .253	R .028	.013	R .468	R 7.837
November	R 1.811	R 1.934	3.193	R 6.949	.642	-.007	R .200	R .242	R .027	.012	R .480	R 8.048
December	R 1.970	R 2.405	3.292	R 7.670	.720	-.007	R .219	R .251	R .028	.013	R .510	R 8.877
Total	R 22.195	R 23.264	38.401	R 83.921	8.145	R -.088	R 2.675	R 2.839	R .328	R .169	R 6.011	R 97.894
2003 January	2.056	2.708	3.308	8.073	.723	-.008	.199	.226	.026	.011	.462	9.238
February	1.799	2.533	3.041	7.386	.636	-.008	.199	.212	.023	.012	.446	8.446
March	1.798	2.213	3.248	7.263	.626	-.008	.246	.242	.026	.016	.529	8.393
April	1.651	1.742	3.158	6.555	.593	-.006	.253	.235	.024	.017	.528	7.653
May	1.745	1.517	3.181	6.445	.649	-.006	.303	.233	.024	.015	.574	7.645
June	1.870	1.357	3.157	6.388	.670	-.008	.288	.236	.025	.015	.565	7.598
July	2.096	1.592	3.330	7.022	.727	-.008	.250	.248	.025	.015	.537	8.269
August	2.122	1.636	3.411	7.170	.721	-.008	.231	.243	.025	.013	.513	8.382
September	R 1.892	RF 1.406	3.202	RE 6.503	R .664	R -.008	R .184	R .228	R .025	R .014	R .451	R 7.590
October	1.778	F 1.602	3.309	E 6.693	F .614	F -.008	.194	.236	.026	.015	.471	7.742
10-Month Total	18.808	E 18.306	32.344	E 69.499	E 6.623	E -.075	2.348	2.339	.248	.142	5.077	80.956
2002 10-Month Total	18.414	18.925	31.917	69.303	6.784	-.075	2.256	2.347	.273	.144	5.020	80.968
2001 10-Month Total	18.396	18.939	32.074	69.435	6.673	-.075	1.849	2.227	.258	.112	4.446	80.420

^a End-use consumption and electricity net generation.
^b Includes supplemental gaseous fuels.
^c Petroleum products supplied, including natural gas plant liquids and crude oil burned as fuel.
^d Includes coal coke net imports. See Table 1.4.
^e Pumped storage facility production minus energy used for pumping.
^f Alcohol (ethanol blended into motor gasoline) is included in both "Petroleum" and "Alcohol," but is counted only once in total energy consumption. See Table 10.1.
^g Includes coal coke net imports and electricity net imports, which are not separately displayed. See Table 1.4.

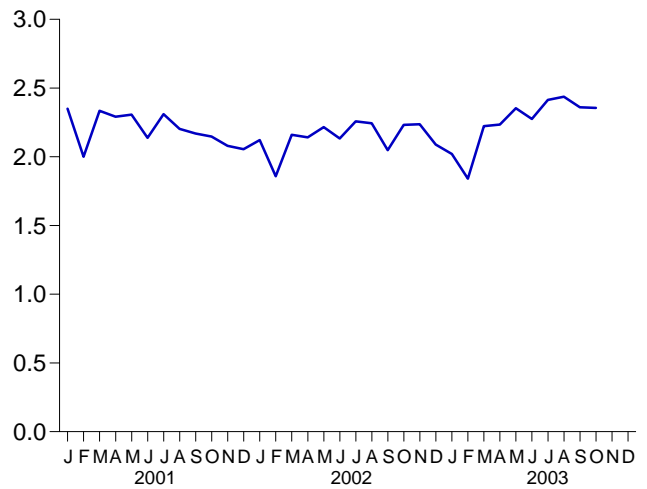
^h Included in conventional hydroelectric power.
R=Revised. E=Estimate. NA=Not available. F=Forecast. (s)=Less than +0.5 trillion Btu and greater than -0.5 trillion Btu.
Notes: • See Note 2 at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.
Web Page: <http://www.eia.doe.gov/emeu/mer/overview.html>.
Sources: • Coal: Tables 6.1 and A5. • Natural Gas: Tables 4.1 and A4. • Petroleum: Tables 3.1a and A3. • Nuclear Electric Power and Hydroelectric Pumped Storage: Tables 7.2a and A6. • Renewable Energy: Table 10.1. • Net Imports of Coal Coke and Electricity: Table 1.4.

Figure 1.4 Energy Net Imports
(Quadrillion Btu, Except as noted)

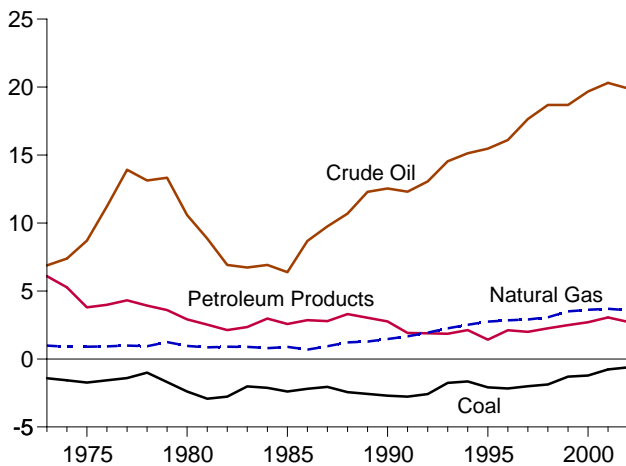
Total, 1973-2002



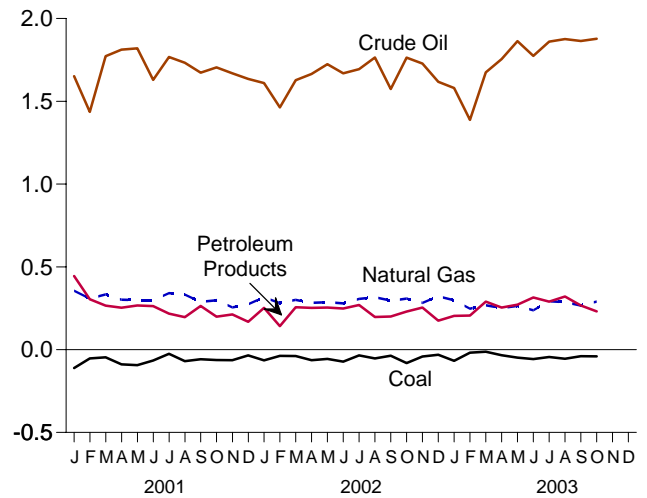
Total, Monthly



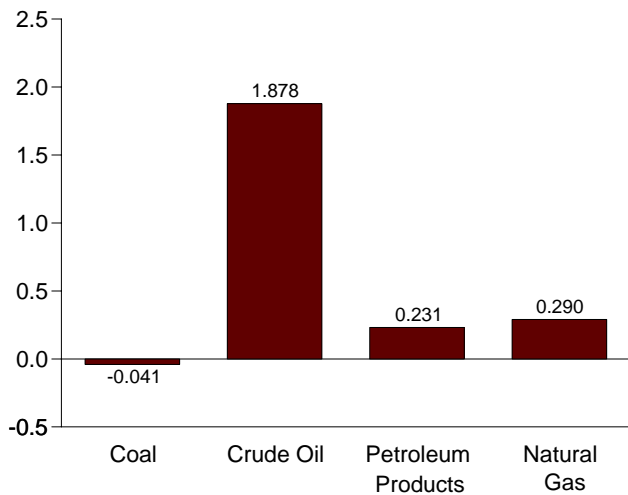
By Major Sources, 1973-2002



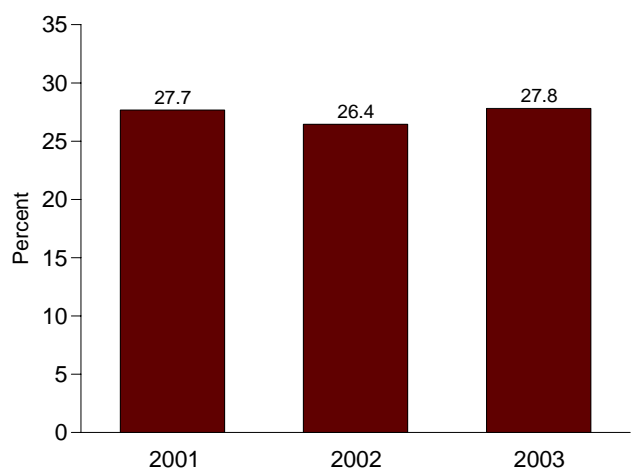
By Major Sources, Monthly



By Major Sources, October 2003



As Share of Consumption, January-October



Note: Because vertical scales differ, graphs should not be compared.
Web Page: <http://www.eia.doe.gov/emeu/mer/overview.html>.
Sources: Tables 1.3 and 1.4.

Table 1.4 Energy Net Imports by Source
(Quadrillion Btu)

	Coal	Coal Coke	Natural Gas	Crude Oil ^a	Petroleum Products ^b	Electricity	Total
1973 Total	-1.422	-0.007	0.981	6.883	6.097	0.049	12.580
1974 Total	-1.568	.056	.907	7.389	5.273	.043	12.101
1975 Total	-1.738	.014	.904	8.708	3.800	.021	11.709
1976 Total	-1.567	(s)	.922	11.221	3.982	.029	14.588
1977 Total	-1.401	.015	.981	13.921	4.321	.059	17.896
1978 Total	-1.004	.125	.941	13.125	3.932	.067	17.186
1979 Total	-1.702	.063	1.243	13.328	3.603	.069	16.605
1980 Total	-2.391	-.035	.957	10.586	2.912	.071	12.101
1981 Total	-2.918	-.016	.857	8.854	2.522	.113	9.412
1982 Total	-2.768	-.022	.898	6.917	2.128	.100	7.253
1983 Total	-2.013	-.016	.885	6.731	2.351	.121	8.059
1984 Total	-2.119	-.011	.792	6.918	2.970	.135	8.685
1985 Total	-2.389	-.013	.896	6.381	2.570	.140	7.584
1986 Total	-2.193	-.017	.686	8.676	2.855	.122	10.130
1987 Total	-2.049	.009	.937	9.748	2.784	.158	11.586
1988 Total	-2.446	.040	1.221	10.698	3.308	.108	12.929
1989 Total	-2.566	.030	1.278	12.296	3.029	.037	14.105
1990 Total	-2.705	.005	1.464	12.536	2.757	.008	14.065
1991 Total	-2.769	.010	1.666	12.308	1.912	.067	13.194
1992 Total	-2.587	.035	1.941	13.065	1.895	.087	14.435
1993 Total	-1.758	.027	2.255	14.542	1.854	.095	17.014
1994 Total	-1.657	.058	2.518	15.131	2.126	.153	18.329
1995 Total	-2.081	.061	2.745	15.469	1.422	.134	17.750
1996 Total	-2.165	.023	2.847	16.108	2.119	.137	19.069
1997 Total	-2.006	.046	2.904	17.648	1.993	.116	20.701
1998 Total	-1.874	.067	3.064	18.684	2.252	.088	22.281
1999 Total	-1.298	.058	3.500	18.686	2.493	.099	23.537
2000 Total	-1.215	.065	3.623	19.676	2.701	.116	24.968
2001 January	-.111	.003	.356	1.652	.444	.006	2.350
February	-.053	.002	.309	1.437	.305	.002	2.001
March	-.047	.003	.334	1.772	.266	.006	2.335
April	-.089	.005	.302	1.812	.253	.008	2.292
May	-.093	.003	.300	1.820	.267	.010	2.307
June	-.066	.002	.300	1.630	.263	.008	2.138
July	-.025	(s)	.341	1.768	.218	.008	2.310
August	-.069	.002	.332	1.733	.196	.009	2.203
September	-.058	(s)	.288	1.673	.264	.002	2.170
October	-.063	.004	.299	1.704	.199	.003	2.147
November	-.063	.002	.255	1.669	.213	.004	2.080
December	-.035	.002	.275	1.635	.168	.009	2.055
Total	-.771	.029	3.691	20.305	3.056	.075	26.386
2002 January	-.065	(s)	.316	1.610	.252	.009	2.122
February	-.038	.003	.282	1.463	.142	.007	1.858
March	-.038	.008	.301	1.627	.256	.006	2.161
April	-.063	-.001	.282	1.665	.253	.006	2.141
May	-.056	.004	.286	1.724	.254	.003	2.216
June	-.072	.002	.279	1.669	.248	.007	2.134
July	-.035	.009	.306	1.694	.270	.013	2.258
August	-.053	.007	.317	1.765	.197	.011	2.244
September	-.037	.009	.296	1.575	.200	.006	2.048
October	-.081	.006	.308	1.764	.230	.005	2.233
November	-.042	.010	.282	1.728	.254	.004	2.237
December	-.031	.003	.322	1.618	.175	.002	2.090
Total	-.610	.061	3.578	19.901	2.732	.078	25.740
2003 January	-.068	.001	.297	1.580	.204	.005	2.020
February	-.018	.013	.248	1.387	.206	.004	1.841
March	-.012	.004	.268	1.674	.290	-.001	2.222
April	-.033	.004	.252	1.755	.254	.003	2.234
May	-.048	.002	.264	1.863	.271	.001	2.353
June	-.057	.004	.238	1.775	.315	.001	2.276
July	-.045	.005	.293	1.861	.290	.010	2.414
August	-.055	.001	.288	1.876	.321	.007	2.437
September	-.039	.004	RE .267	1.864	.267	-.002	2.361
October	-.041	.004	F .290	1.878	.231	-.007	2.356
10-Month Total	-.416	.041	E 2.704	17.513	2.650	.022	22.514
2002 10-Month Total	-.538	.047	2.974	16.556	2.303	.072	21.414
2001 10-Month Total	-.673	.025	3.161	17.000	2.675	.062	22.251

^a Crude oil and lease condensate. Includes imports into the Strategic Petroleum Reserve, which began in 1977.

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

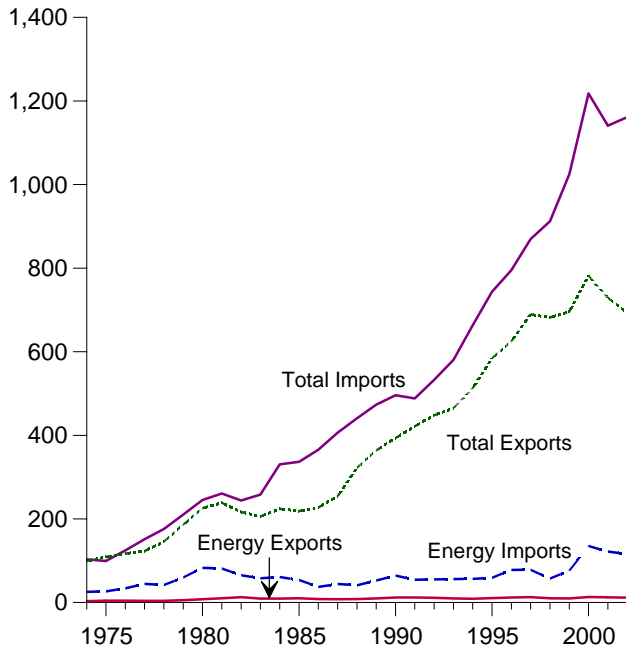
R=Revised. E=Estimate. F=Forecast. (s)=Less than +0.5 trillion Btu and greater than -0.5 trillion Btu.

Notes: • See Notes 3 and 4 at end of section. • Net imports equal imports minus exports. Minus sign indicates exports are greater than imports.

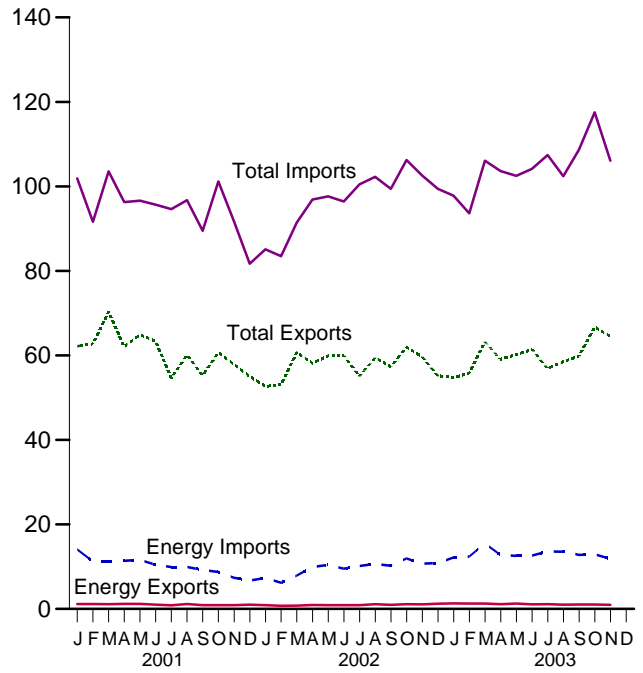
- Totals may not equal sum of components due to independent rounding.
- Geographic coverage is the 50 States and the District of Columbia.
Web Page: <http://www.eia.doe.gov/emeu/mer/overview.html>.
- Sources: • **Coal:** Tables 6.1 and A5. • **Coal Coke:** Section 2, "Energy Consumption Notes and Sources," Note 5, and Table A5. • **Natural Gas:** Tables 4.1 and A4. • **Crude Oil and Petroleum Products:** Tables 3.1b, A2, and A3. • **Electricity:** Tables 7.1 and A6.

Figure 1.5 Merchandise Trade Value
(Billion Dollars)

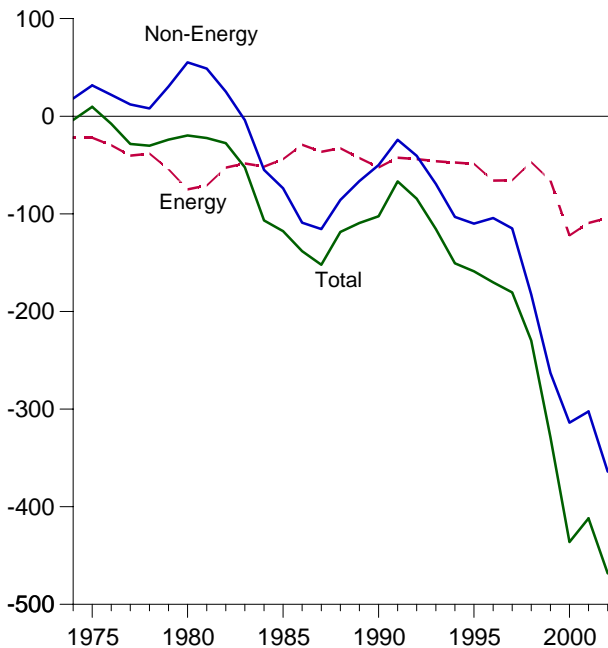
Imports and Exports, 1974-2002



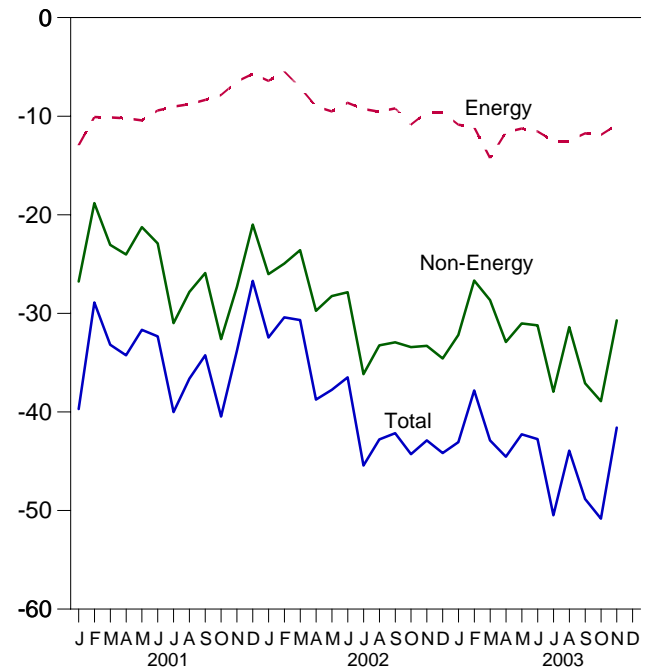
Imports and Exports, Monthly



Trade Balance, 1974-2002



Trade Balance, Monthly



Note: Because vertical scales differ, graphs should not be compared.
Web Page: <http://www.eia.doe.gov/emeu/mer/overview.html>.
Source: Table 1.5.

Table 1.5 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 Total	6,321	54,368	-48,047	10,358	59,109	-48,751	-110,050	584,742	743,543	-158,801
1996 Total	7,984	72,022	-64,038	12,181	78,086	-65,905	-104,309	625,075	795,289	-170,214
1997 Total	8,592	71,152	-62,560	12,682	78,277	-65,595	-114,927	689,182	869,704	-180,522
1998 Total	6,574	50,264	-43,690	10,251	57,323	-47,072	-182,686	682,138	911,896	-229,758
1999 Total	7,118	67,173	-60,055	9,880	75,803	-65,923	-262,898	695,797	1,024,618	-328,821
2000 Total	10,192	119,251	-109,059	13,179	135,367	-122,188	-313,916	781,918	1,218,022	-436,104
2001 January	804	10,538	-9,734	1,148	14,087	-12,939	-26,769	62,161	101,869	-39,708
February	690	8,856	-8,166	1,141	11,226	-10,085	-18,811	62,743	91,639	-28,896
March	757	9,226	-8,469	1,129	11,256	-10,127	-23,052	70,358	103,536	-33,179
April	774	9,430	-8,656	1,179	11,398	-10,219	-24,031	62,015	96,265	-34,250
May	805	9,727	-8,922	1,189	11,617	-10,428	-21,246	64,931	96,605	-31,674
June	749	9,096	-8,347	1,009	10,425	-9,416	-22,914	63,333	95,663	-32,330
July	663	8,621	-7,958	867	9,893	-9,026	-30,989	54,611	94,625	-40,015
August	864	8,672	-7,808	1,162	9,956	-8,794	-27,822	60,111	96,728	-36,616
September	619	8,348	-7,729	883	9,227	-8,344	-25,908	55,232	89,484	-34,252
October	669	7,992	-7,323	891	8,745	-7,854	-32,621	60,701	101,177	-40,475
November	638	6,429	-5,791	878	7,364	-6,486	-27,319	57,900	91,705	-33,805
December	838	5,807	-4,969	1,017	6,728	-5,711	-20,989	55,003	81,703	-26,700
Total	8,868	102,747	-93,879	12,494	121,923	-109,429	-302,470	729,100	1,140,999	-411,899
2002 January	639	6,348	-5,709	908	7,321	-6,413	-26,031	52,667	85,111	-32,444
February	597	5,427	-4,830	744	6,200	-5,456	-24,955	53,061	83,473	-30,411
March	593	6,914	-6,321	782	7,878	-7,096	-23,591	60,728	91,415	-30,687
April	676	8,907	-8,231	910	9,917	-9,007	-29,738	58,146	96,891	-38,745
May	664	9,365	-8,701	903	10,423	-9,520	-28,245	59,884	97,649	-37,765
June	603	8,465	-7,862	883	9,522	-8,639	-27,856	59,920	96,415	-36,495
July	664	9,086	-8,422	883	10,153	-9,270	-36,170	55,032	100,472	-45,440
August	822	9,637	-8,815	1,121	10,667	-9,546	-33,241	59,491	102,277	-42,787
September	726	9,119	-8,393	979	10,191	-9,212	-32,939	57,277	99,429	-42,151
October	827	10,712	-9,885	1,104	11,961	-10,857	-33,419	61,975	106,251	-44,276
November	779	9,328	-8,549	1,085	10,682	-9,597	-33,297	59,671	102,564	-42,894
December	979	9,354	-8,375	1,239	10,831	-9,592	-34,577	55,249	99,418	-44,169
Total	8,569	102,663	-94,094	11,541	115,748	-104,207	-364,056	693,103	1,161,366	-468,263
2003 January	1,045	10,396	-9,351	1,310	12,182	-10,872	-32,189	54,745	97,806	-43,061
February	956	10,168	-9,212	1,266	12,411	-11,145	-26,674	55,828	93,647	-37,819
March	1,005	12,751	-11,746	1,250	15,488	-14,238	-28,647	63,184	106,070	-42,885
April	858	11,014	-10,156	1,105	12,740	-11,635	-32,909	59,086	103,630	-44,544
May	842	10,450	-9,608	1,287	12,536	-11,249	-31,017	60,210	102,477	-42,266
June	808	10,815	-10,007	1,081	12,628	-11,547	-31,213	61,389	104,149	-42,760
July	842	11,911	-11,069	1,105	13,629	-12,524	-37,950	56,936	107,410	-50,474
August	740	11,560	-10,820	1,007	13,529	-12,522	-31,395	58,515	102,432	-43,917
September	788	11,004	-10,216	1,048	12,788	-11,740	-37,091	59,863	108,694	-48,831
October	767	11,089	-10,322	1,023	12,923	-11,900	^R -38,916	^R 66,723	^R 117,539	^R -50,816
November	722	10,166	-9,444	968	11,848	-10,880	-30,708	64,496	106,083	-41,588
11-Month Total	9,373	121,324	-111,951	12,450	142,702	-130,252	-358,709	660,975	1,149,937	-488,962
2002 11-Month Total	7,590	93,308	-85,718	10,302	104,915	-94,613	-329,482	637,854	1,061,948	-424,093
2001 11-Month Total	8,032	96,935	-88,903	11,476	115,194	-103,718	-281,482	674,097	1,059,296	-385,199

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

^b Petroleum, coal, natural gas, and electricity.

R=Revised.

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

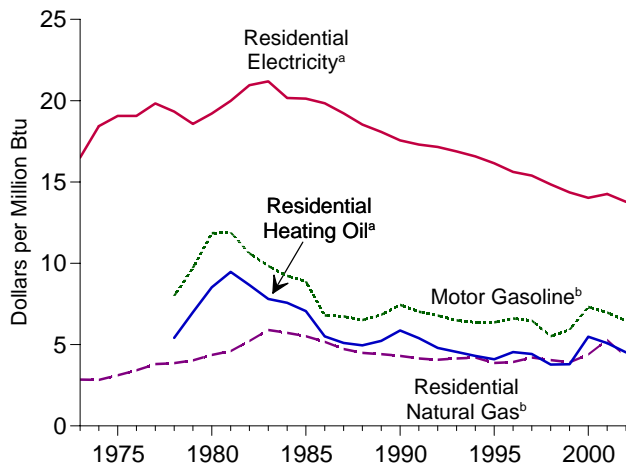
nongovernment imports of merchandise from foreign countries into the U.S. customs territory, which comprises the 50 States, the District of Columbia, Puerto Rico, and the Virgin Islands.

Web Page: <http://www.eia.doe.gov/emeu/mer/overview.html>.

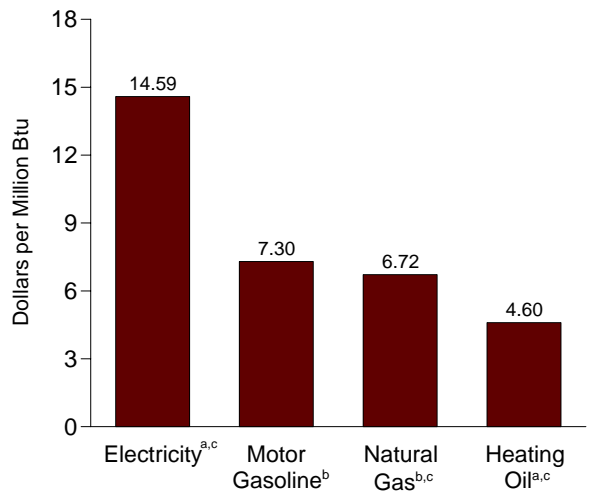
Source: U.S. Department of Commerce, Bureau of the Census, Foreign Trade Division. For details, see "Sources for Table 1.5" at the end of this section.

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

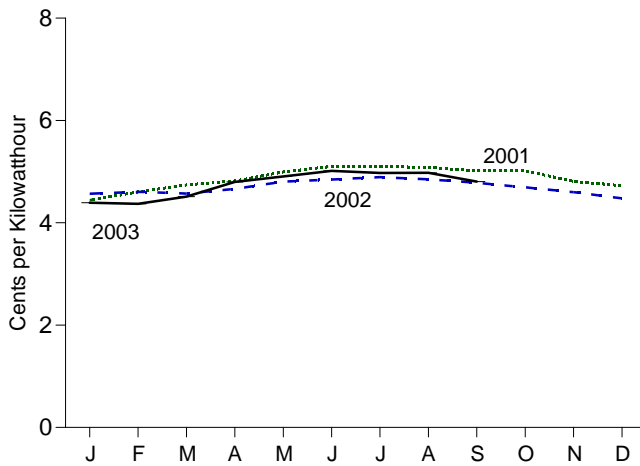
Costs, 1973-2002



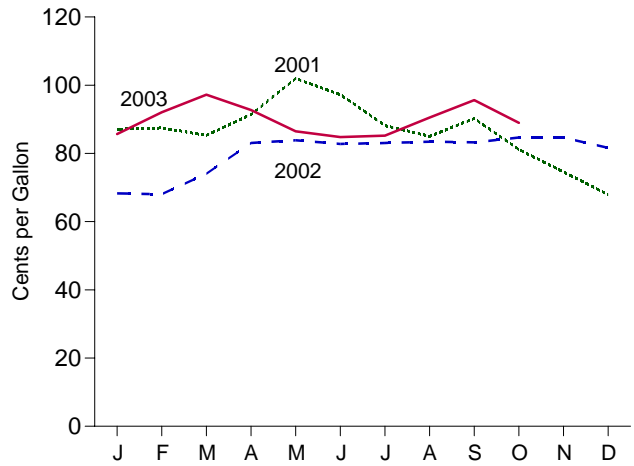
Costs, August 2003



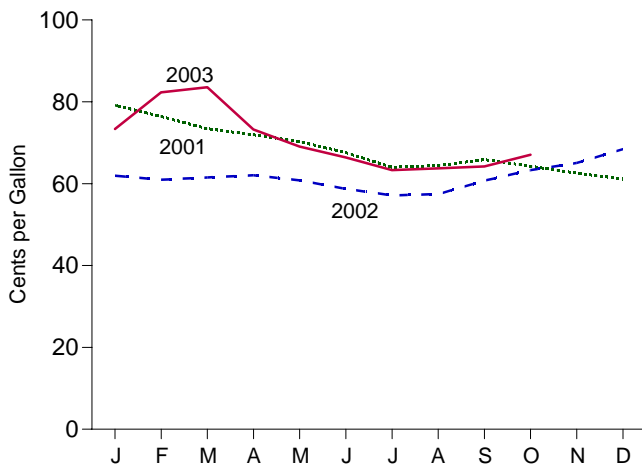
Residential Electricity^a, Monthly



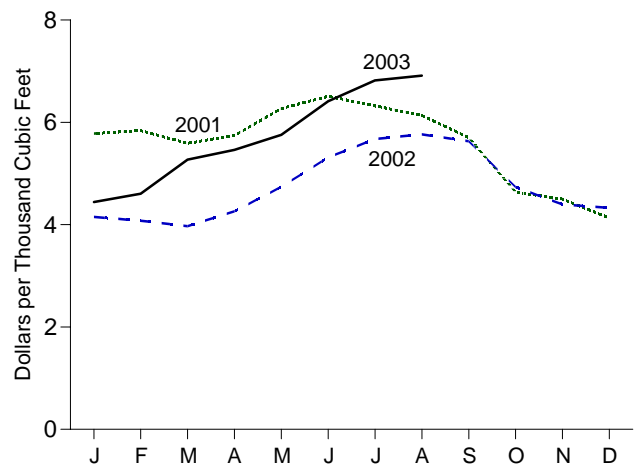
Motor Gasoline^b, Monthly



Residential Heating Oil^a, Monthly



Residential Natural Gas^b, Monthly



^aExcludes taxes.
^bIncludes taxes.
^cResidential.

Note: Because vertical scales differ, graphs should not be compared.
 Web Page: <http://www.eai.doe.gov/emeu/mer/overview.html>.
 Source: Table 1.6.

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

	Consumer Price Index (Urban) ^a	Motor Gasoline ^b		Residential Heating Oil ^c		Residential Natural Gas ^d		Residential Electricity ^e	
	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 Kilowatt-hour	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	6.88	20.17
1985 Average	107.6	111.2	8.89	97.9	7.06	568.8	5.52	6.87	20.13
1986 Average	109.6	84.9	6.79	76.3	5.50	531.9	5.17	6.77	19.84
1987 Average	113.6	84.2	6.74	70.7	5.10	487.7	4.73	6.56	19.22
1988 Average	118.3	81.4	6.51	68.7	4.96	462.4	4.49	6.32	18.53
1989 Average	124.0	85.5	6.83	72.6	5.23	454.8	4.41	6.17	18.08
1990 Average	130.7	93.1	7.44	81.3	5.86	443.8	4.31	5.99	17.56
1991 Average	136.2	87.8	7.02	74.8	5.39	427.3	4.14	5.90	17.30
1992 Average	140.3	84.8	6.78	66.6	4.80	419.8	4.07	5.85	17.15
1993 Average	144.5	81.2	6.49	63.0	4.55	426.3	4.15	5.76	16.88
1994 Average	148.2	79.2	6.36	59.6	4.30	432.5	4.20	5.65	16.57
1995 Average	152.4	79.1	6.37	56.9	4.10	397.6	3.87	5.51	16.15
1996 Average	156.9	82.1	6.61	63.0	4.54	404.1	3.93	5.33	15.62
1997 Average	160.5	80.4	6.48	61.3	4.42	432.4	4.21	5.25	15.39
1998 Average	163.0	68.4	5.51	52.3	3.77	418.4	4.05	5.07	14.85
1999 Average	166.6	73.3	5.91	52.6	3.79	401.6	3.91	4.90	14.36
2000 Average	172.2	90.8	7.32	76.1	5.49	450.6	4.39	4.79	14.02
2001 January	175.1	87.1	7.02	79.2	5.71	578.0	5.62	4.44	13.02
February	175.8	87.5	7.05	76.4	5.51	583.6	5.67	4.60	13.49
March	176.2	85.3	6.88	73.4	5.30	559.0	5.43	4.74	13.89
April	176.9	91.4	7.37	72.0	5.19	574.3	5.58	4.82	14.12
May	177.7	102.0	8.22	70.3	5.07	626.9	6.09	4.99	14.63
June	178.0	97.2	7.84	67.6	4.87	651.1	6.33	5.10	14.95
July	177.5	88.2	7.11	64.0	4.61	632.1	6.14	5.10	14.96
August	177.5	85.0	6.85	64.4	4.64	613.5	5.96	5.08	14.89
September	178.3	90.2	7.27	65.9	4.75	570.4	5.54	5.01	14.70
October	177.7	81.1	6.54	64.3	4.63	463.7	4.51	5.01	14.70
November	177.4	74.6	6.02	62.6	4.51	449.8	4.37	4.81	14.09
December	176.7	67.9	5.47	61.1	4.41	413.1	4.01	4.73	13.85
Average	177.1	86.4	6.97	70.6	5.09	544.3	5.29	4.87	14.27
2002 January	177.1	68.3	5.51	61.9	4.47	415.0	4.03	R 4.57	R 13.39
February	177.8	68.1	5.49	61.0	4.40	407.8	3.96	R 4.61	R 13.50
March	178.8	74.0	5.97	61.5	4.44	397.1	3.86	R 4.57	R 13.39
April	179.8	83.0	6.70	62.1	4.48	426.0	4.14	4.66	R 13.66
May	179.8	83.9	6.76	60.8	4.38	473.9	4.61	4.81	14.08
June	179.9	82.8	6.67	58.8	4.24	531.4	5.16	R 4.85	R 14.21
July	180.1	83.1	6.70	57.1	4.12	567.5	5.51	4.89	R 14.34
August	180.7	83.5	6.73	57.4	4.14	576.6	5.60	R 4.85	R 14.21
September	181.0	83.3	6.71	60.7	4.38	563.0	5.47	4.78	R 14.02
October	181.3	84.7	6.83	63.3	4.57	473.8	4.60	4.69	R 13.76
November	181.3	84.6	6.82	65.1	4.69	439.6	4.27	R 4.60	R 13.48
December	180.9	81.6	6.58	68.4	4.93	432.8	4.21	R 4.48	R 13.12
Average	179.9	80.1	6.46	62.8	4.52	438.0	4.26	4.70	R 13.78
2003 January	181.7	85.7	6.91	73.4	5.29	444.1	4.32	4.39	12.87
February	183.1	92.1	7.43	82.3	5.93	460.4	4.47	4.37	12.81
March	184.2	97.2	7.84	83.6	6.02	527.1	5.12	4.51	13.22
April	183.8	92.7	7.48	73.2	5.28	546.2	5.31	4.80	14.06
May	183.5	86.5	6.97	69.0	4.98	575.5	5.59	4.90	14.37
June	183.7	84.8	6.84	66.4	4.79	641.3	6.23	5.01	14.69
July	183.9	85.2	6.87	63.3	4.56	681.9	6.63	4.98	14.58
August	184.6	90.5	7.30	63.8	4.60	691.2	6.72	4.98	14.59
September	185.2	95.6	7.71	R 64.2	R 4.63	NA	NA	4.81	14.08
October	185.0	89.0	7.18	67.1	4.84	NA	NA	NA	NA

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

^b Includes taxes.

^c Excludes taxes.

R=Revised. NA=Not available.

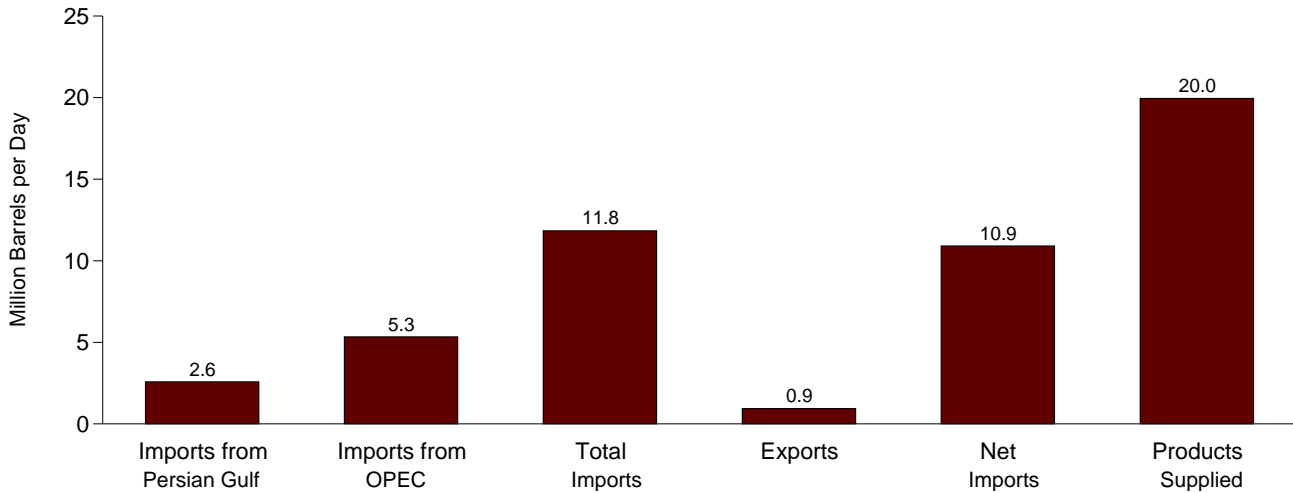
Notes: • Fuel costs are calculated by using the Urban Consumer Price Index (CPI) developed by the Bureau of Labor Statistics. • Annual averages may not equal average of months due to independent rounding.

• Geographic coverage is the 50 States and the District of Columbia. Web Page: <http://www.eia.doe.gov/emeu/mer/overview.html>.

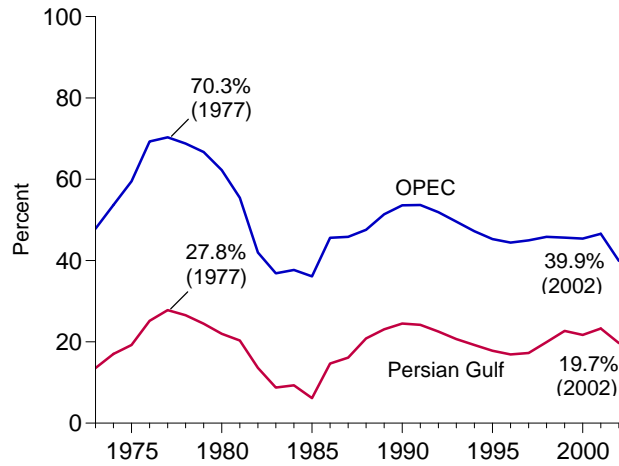
Sources: • **Fuel Prices:** Tables 9.4 (All Types), 9.8c, 9.11, and 9.9, adjusted by the CPI. • **CPI: 1973-2001**—*Economic Report of the President*, February 2003, Table B-60. **2002 forward**—Council of Economic Advisers, *Economic Indicators*, December 2003, "Consumer Prices - All Urban Consumers." • **Conversion Factors:** Tables A1, A3, A4, and A6.

Figure 1.7 Overview of U.S. Petroleum Trade

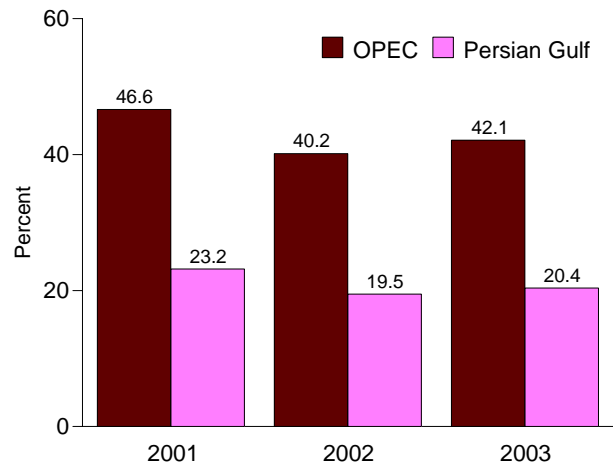
Overview, November 2003



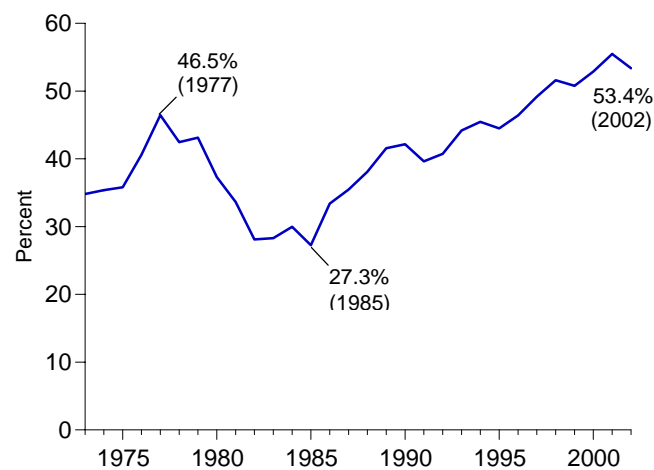
Imports from OPEC and the Persian Gulf as a Share of Total Imports
1973-2002



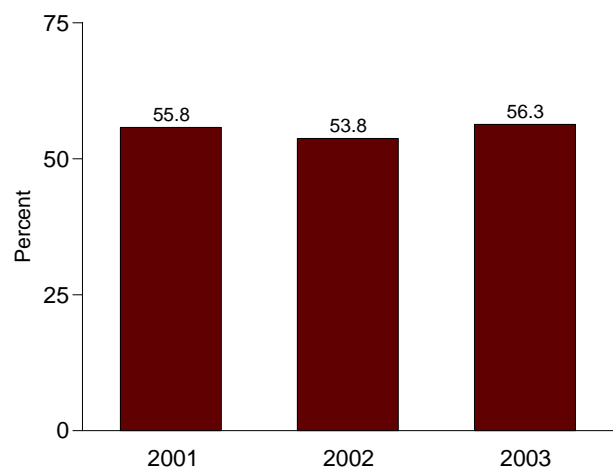
January-November



Net Imports as Share of Products Supplied
1973-2002



January-November



OPEC=Organization of Petroleum Exporting Countries.
Note: Because vertical scales differ, graphs should not be compared.

Web Page: <http://www.eia.doe.gov/emeu/mer/overview.html>.
Source: Table 1.7.

Table 1.7 Overview of U.S. Petroleum Trade

	Imports from Persian Gulf ^a	Imports from OPEC ^b	Imports	Exports	Net Imports	Products Supplied	As Share of Products Supplied				As Share of Total Imports	
							Imports from Persian Gulf ^a	Imports from OPEC ^b	Imports	Net Imports	Imports from Persian Gulf ^a	Imports from OPEC ^b
							Thousand Barrels per Day					
1973 Average	848	2,993	6,256	231	6,025	17,308	4.9	17.3	36.1	34.8	13.6	47.8
1974 Average	1,039	3,280	6,112	221	5,892	16,653	6.2	19.7	36.7	35.4	17.0	53.7
1975 Average	1,165	3,601	6,056	209	5,846	16,322	7.1	22.1	37.1	35.8	19.2	59.5
1976 Average	1,840	5,066	7,313	223	7,090	17,461	10.5	29.0	41.9	40.6	25.2	69.3
1977 Average	2,448	6,193	8,807	243	8,565	18,431	13.3	33.6	47.8	46.5	27.8	70.3
1978 Average	2,219	5,751	8,363	362	8,002	18,847	11.8	30.5	44.4	42.5	26.5	68.8
1979 Average	2,069	5,637	8,456	471	7,985	18,513	11.2	30.5	45.7	43.1	24.5	66.7
1980 Average	1,519	4,300	6,909	544	6,365	17,056	8.9	25.2	40.5	37.3	22.0	62.2
1981 Average	1,219	3,323	5,996	595	5,401	16,058	7.6	20.7	37.3	33.6	20.3	55.4
1982 Average	696	2,146	5,113	815	4,298	15,296	4.5	14.0	33.4	28.1	13.6	42.0
1983 Average	442	1,862	5,051	739	4,312	15,231	2.9	12.2	33.2	28.3	8.8	36.9
1984 Average	506	2,049	5,437	722	4,715	15,726	3.2	13.0	34.6	30.0	9.3	37.7
1985 Average	311	1,830	5,067	781	4,286	15,726	2.0	11.6	32.2	27.3	6.1	36.1
1986 Average	912	2,837	6,224	785	5,439	16,281	5.6	17.4	38.2	33.4	14.7	45.6
1987 Average	1,077	3,060	6,678	764	5,914	16,665	6.5	18.4	40.1	35.5	16.1	45.8
1988 Average	1,541	3,520	7,402	815	6,587	17,283	8.9	20.4	42.8	38.1	20.8	47.6
1989 Average	1,861	4,140	8,061	859	7,202	17,325	10.7	23.9	46.5	41.6	23.1	51.4
1990 Average	1,966	4,296	8,018	857	7,161	16,988	11.6	25.3	47.2	42.2	24.5	53.6
1991 Average	1,845	4,092	7,627	1,001	6,626	16,714	11.0	24.5	45.6	39.6	24.2	53.7
1992 Average	1,778	4,092	7,888	950	6,938	17,033	10.4	24.0	46.3	40.7	22.5	51.9
1993 Average	1,782	4,273	8,620	1,003	7,618	17,237	10.3	24.8	50.0	44.2	20.7	49.6
1994 Average	1,728	4,247	8,996	942	8,054	17,718	9.8	24.0	50.8	45.5	19.2	47.2
1995 Average	1,573	4,002	8,835	949	7,886	17,725	8.9	22.6	49.8	44.5	17.8	45.3
1996 Average	1,604	4,211	9,478	981	8,498	18,309	8.8	23.0	51.8	46.4	16.9	44.4
1997 Average	1,755	4,569	10,162	1,003	9,158	18,620	9.4	24.5	54.6	49.2	17.3	45.0
1998 Average	2,136	4,905	10,708	945	9,764	18,917	11.3	25.9	56.6	51.6	19.9	45.8
1999 Average	2,464	4,953	10,852	940	9,912	19,519	12.6	25.4	55.6	50.8	22.7	45.6
2000 Average	2,488	5,203	11,459	1,040	10,419	19,701	12.6	26.4	58.2	52.9	21.7	45.4
2001												
January	2,504	5,527	12,555	954	11,601	20,092	12.5	27.5	62.5	57.7	19.9	44.0
February	2,377	5,071	11,643	1,004	10,639	19,689	12.1	25.8	59.1	54.0	20.4	43.6
March	2,699	5,832	12,132	938	11,194	19,876	13.6	29.3	61.0	56.3	22.2	48.1
April	2,904	6,104	12,653	942	11,711	19,729	14.7	30.9	64.1	59.4	23.0	48.2
May	3,120	6,080	12,529	1,069	11,461	19,501	16.0	31.2	64.2	58.8	24.9	48.5
June	2,901	5,641	11,732	976	10,756	19,561	14.8	28.8	60.0	55.0	24.7	48.1
July	2,736	5,509	11,760	879	10,881	19,919	13.7	27.7	59.0	54.6	23.3	46.8
August	2,695	5,289	11,622	1,048	10,573	20,153	13.4	26.2	57.7	52.5	23.2	45.5
September	3,028	5,593	11,818	825	10,993	19,016	15.9	29.4	62.1	57.8	25.6	47.3
October	2,857	5,542	11,379	946	10,432	19,824	14.4	28.0	57.4	52.6	25.1	48.7
November	2,637	5,097	11,628	960	10,669	19,396	13.6	26.3	60.0	55.0	22.7	43.8
December	2,651	5,024	10,994	1,109	9,885	19,003	14.0	26.4	57.9	52.0	24.1	45.7
Average	2,761	5,528	11,871	971	10,900	19,649	14.1	28.1	60.4	55.5	23.3	46.6
2002												
January	2,670	5,029	11,088	861	10,228	19,454	13.7	25.9	57.0	52.6	24.1	45.4
February	2,484	4,733	10,904	1,175	9,729	19,444	12.8	24.3	56.1	50.0	22.8	43.4
March	2,556	4,991	11,198	853	10,345	19,676	13.0	25.4	56.9	52.6	22.8	44.6
April	2,400	4,606	11,765	890	10,876	19,552	12.3	23.6	60.2	55.6	20.4	39.1
May	2,238	4,561	11,769	910	10,859	19,728	11.3	23.1	59.7	55.0	19.0	38.8
June	2,090	4,356	11,753	880	10,873	19,875	10.5	21.9	59.1	54.7	17.8	37.1
July	1,999	4,366	11,624	839	10,785	20,076	10.0	21.7	57.9	53.7	17.2	37.6
August	1,903	4,638	11,890	1,138	10,752	20,221	9.4	22.9	58.8	53.2	16.0	39.0
September	2,052	4,452	11,075	1,015	10,059	19,461	10.5	22.9	56.9	51.7	18.5	40.2
October	2,177	4,686	11,893	962	10,931	19,678	11.1	23.8	60.4	55.5	18.3	39.4
November	2,222	4,682	12,268	1,026	11,242	19,991	11.1	23.4	61.4	56.2	18.1	38.2
December	2,449	4,164	11,100	1,272	9,828	19,943	12.3	20.9	55.7	49.3	22.1	37.5
Average	2,269	4,605	11,530	984	10,546	19,761	11.5	23.3	58.3	53.4	19.7	39.9
2003												
January	2,718	4,272	11,008	1,212	9,796	20,042	13.6	21.3	54.9	48.9	24.7	38.8
February	2,612	3,990	10,764	1,067	9,697	20,396	12.8	19.6	52.8	47.5	24.3	37.1
March	2,740	5,371	11,857	1,051	10,806	19,682	13.9	27.3	60.2	54.9	23.1	45.3
April	3,131	5,936	12,446	1,053	11,394	19,770	15.8	30.0	63.0	57.6	25.2	47.7
May	2,637	5,619	12,814	1,097	11,717	19,277	13.7	29.1	66.5	60.8	20.6	43.9
June	2,326	5,502	12,941	1,065	11,875	19,767	11.8	27.8	65.5	60.1	18.0	42.5
July	2,170	4,818	12,788	976	11,812	20,175	10.8	23.9	63.4	58.5	17.0	37.7
August	1,849	5,045	12,904	836	12,068	20,665	8.9	24.4	62.4	58.4	14.3	39.1
September	2,397	5,486	13,042	960	12,082	20,045	12.0	27.4	65.1	60.3	18.4	42.1
October	2,359	5,454	12,526	970	11,556	20,049	11.8	27.2	62.5	57.6	18.8	43.5
November	2,586	5,341	11,846	933	10,913	19,952	13.0	26.8	59.4	54.7	21.8	45.1
11-Month Average ...	2,500	5,173	12,277	1,020	11,257	19,981	12.5	25.9	61.4	56.3	20.4	42.1
2002 11-Month Average ...	2,252	4,646	11,570	957	10,613	19,744	11.4	23.5	58.6	53.8	19.5	40.2
2001 11-Month Average ...	2,771	5,575	11,953	958	10,995	19,709	14.1	28.3	60.6	55.8	23.2	46.6

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

^b Organization of Petroleum Exporting Countries. See Glossary.

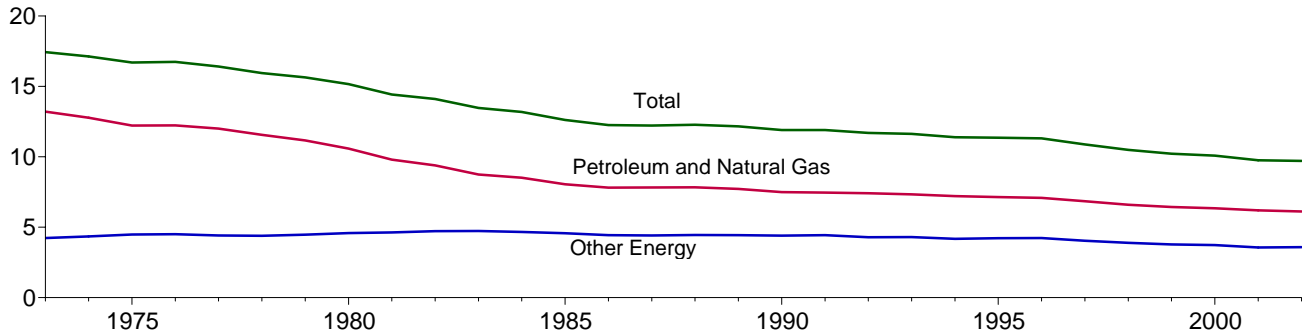
Notes: • Readers of Table 1.7 may be interested in a feature article, "Measuring Dependence on Imported Oil," that was published in the August 1995 *Monthly Energy Review*. • Petroleum is crude oil, lease condensate, unfinished oils, petroleum products, natural gas plant liquids, and nonhydrocarbon compounds 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.

Web Page: <http://www.eia.doe.gov/emeu/mer/overview.html>.

Sources: • **Column 1:** Table 3.3b. • **Column 2:** Table 3.3d. • **Columns 3-5:** Table 3.1b. • **Column 6:** Table 3.1a. • **Columns 7-12:** Calculated by Energy Information Administration.

Figure 1.8 Energy Consumption per Dollar of Gross Domestic Product
(Thousand Btu per Chained (2000) Dollar)



Web Page: <http://www.eia.doe.gov/emeu/mer/overview.html>.
Source: Table 1.8.

Table 1.8 Energy Consumption per Dollar of Gross Domestic Product

	Energy Consumption			Gross Domestic Product (GDP)	Energy Consumption per Dollar of GDP		
	Petroleum and Natural Gas	Other Energy ^a	Total		Petroleum and Natural Gas	Other Energy ^a	Total
	Quadrillion Btu				Billion Chained (2000) Dollars	Thousand Btu per Chained (2000) Dollar	
1973 Year	57.352	18.356	75.708	4,341.5	13.21	4.23	17.44
1974 Year	55.187	18.804	73.991	4,319.6	12.78	4.35	17.13
1975 Year	52.678	19.321	71.999	4,311.2	12.22	4.48	16.70
1976 Year	55.520	20.492	76.012	4,540.9	12.23	4.51	16.74
1977 Year	57.053	20.947	78.000	4,750.5	12.01	4.41	16.42
1978 Year	57.966	22.021	79.986	5,015.0	11.56	4.39	15.95
1979 Year	57.789	23.114	80.903	5,173.4	11.17	4.47	15.64
1980 Year	54.596	23.693	78.289	5,161.7	10.58	4.59	15.17
1981 Year	51.859	24.476	76.335	5,291.7	9.80	4.63	14.43
1982 Year	48.736	24.497	73.234	5,189.3	9.39	4.72	14.11
1983 Year	47.411	25.655	73.066	5,423.8	8.74	4.73	13.47
1984 Year	49.558	27.135	76.693	5,813.6	8.52	4.67	13.19
1985 Year	48.756	27.661	76.417	6,053.7	8.05	4.57	12.62
1986 Year	48.904	27.818	76.722	6,263.6	7.81	4.44	12.25
1987 Year	50.609	28.547	79.156	6,475.1	7.82	4.41	12.22
1988 Year	52.774	30.000	82.774	6,742.7	7.83	4.45	12.28
1989 Year	53.923	30.963	84.886	6,981.4	7.72	4.44	12.16
1990 Year	53.282	31.323	84.605	7,112.5	7.49	4.40	11.90
1991 Year	52.994	31.528	84.522	7,100.5	7.46	4.44	11.90
1992 Year	54.362	31.504	85.866	7,336.6	7.41	4.29	11.70
1993 Year	55.193	32.386	87.579	7,532.7	7.33	4.30	11.63
1994 Year	56.512	32.736	89.248	7,835.5	7.21	4.18	11.39
1995 Year	57.338	33.884	91.221	8,031.7	7.14	4.22	11.36
1996 Year	58.954	35.270	94.224	8,328.9	7.08	4.23	11.31
1997 Year	59.594	35.133	94.727	8,703.5	6.85	4.04	10.88
1998 Year	59.869	35.277	95.146	9,066.9	6.60	3.89	10.49
1999 Year	60.970	35.804	96.774	9,470.3	6.44	3.78	10.22
2000 Year	62.356	36.586	98.942	9,817.0	6.35	3.73	10.08
2001 Year	61.202	35.117	96.320	9,866.6	6.20	3.56	9.76
2002 Year	^R 61.666	^R 36.228	^R 97.894	10,083.0	^R 6.12	^R 3.59	^R 9.71

^a Coal, nuclear electric power, renewable energy, pumped-storage hydroelectric power, and net imports of coal coke and electricity.

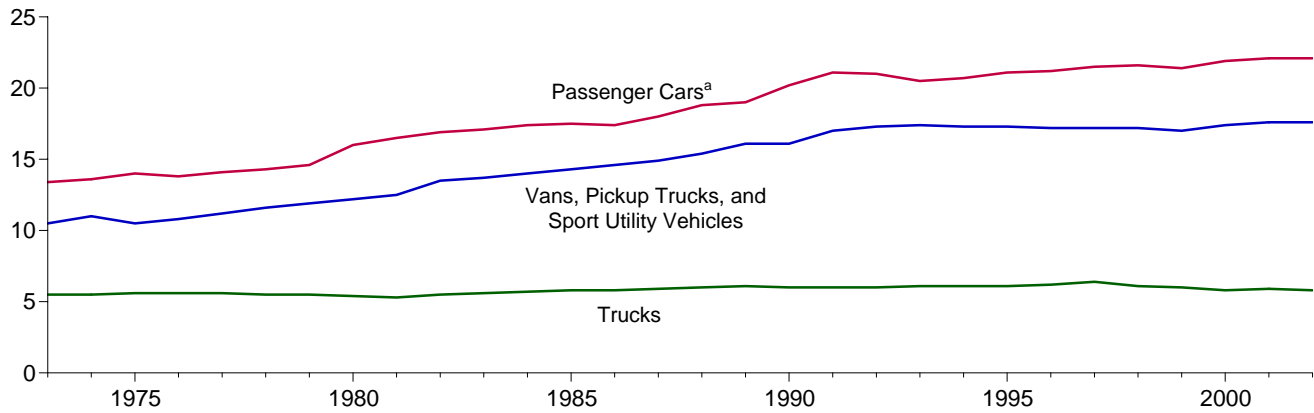
R=Revised.

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

Web Page: <http://www.eia.doe.gov/emeu/mer/overview.html>.

Sources: • **Energy Consumption:** Table 1.3. • **Gross Domestic Product: 1973-2001**—U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, December 2003, Table 7B. **2002**—U.S. Department of Commerce, Bureau of Economic Analysis, *BEA News Release*, December 23, 2003, Table 3, which is available at website www.bea.doc.gov/bea/newsrel/gdp400p.htm.

Figure 1.9 Motor Vehicle Fuel Rates
(Miles per Gallon)



^aMotorcycles are included through 1989.

Web Page: <http://www.eia.doe.gov/emeu/mer/overview.html>.

Source: Table 1.9.

Table 1.9 Motor Vehicle Mileage, Fuel Consumption, and Fuel Rates

	Passenger Cars ^a			Vans, Pickup Trucks, and Sport Utility Vehicles ^b			Trucks ^c			All Motor Vehicles ^d		
	Mileage (miles per vehicle)	Fuel Consumption (gallons per vehicle)	Fuel Rate (miles per gallon)	Mileage (miles per vehicle)	Fuel Consumption (gallons per vehicle)	Fuel Rate (miles per gallon)	Mileage (miles per vehicle)	Fuel Consumption (gallons per vehicle)	Fuel Rate (miles per gallon)	Mileage (miles per vehicle)	Fuel Consumption (gallons per vehicle)	Fuel Rate (miles per gallon)
1973	9,884	737	13.4	9,779	931	10.5	15,370	2,775	5.5	10,099	850	11.9
1974	9,221	677	13.6	9,452	862	11.0	14,995	2,708	5.5	9,493	788	12.0
1975	9,309	665	14.0	9,829	934	10.5	15,167	2,722	5.6	9,627	790	12.2
1976	9,418	681	13.8	10,127	934	10.8	15,438	2,764	5.6	9,774	806	12.1
1977	9,517	676	14.1	10,607	947	11.2	16,700	3,002	5.6	9,978	814	12.3
1978	9,500	665	14.3	10,968	948	11.6	18,045	3,263	5.5	10,077	816	12.4
1979	9,062	620	14.6	10,802	905	11.9	18,502	3,380	5.5	9,722	776	12.5
1980	8,813	551	16.0	10,437	854	12.2	18,736	3,447	5.4	9,458	712	13.3
1981	8,873	538	16.5	10,244	819	12.5	19,016	3,565	5.3	9,477	697	13.6
1982	9,050	535	16.9	10,276	762	13.5	19,931	3,647	5.5	9,644	686	14.1
1983	9,118	534	17.1	10,497	767	13.7	21,083	3,769	5.6	9,760	686	14.2
1984	9,248	530	17.4	11,151	797	14.0	22,550	3,967	5.7	10,017	691	14.5
1985	9,419	538	17.5	10,506	735	14.3	20,597	3,570	5.8	10,020	685	14.6
1986	9,464	543	17.4	10,764	738	14.6	22,143	3,821	5.8	10,143	692	14.7
1987	9,720	539	18.0	11,114	744	14.9	23,349	3,937	5.9	10,453	694	15.1
1988	9,972	531	18.8	11,465	745	15.4	22,485	3,736	6.0	10,721	688	15.6
1989	^a 10,157	^a 533	^a 19.0	11,676	724	16.1	22,926	3,776	6.1	10,932	688	15.9
1990	10,504	520	20.2	11,902	738	16.1	23,603	3,953	6.0	11,107	677	16.4
1991	10,571	501	21.1	12,245	721	17.0	24,229	4,047	6.0	11,294	669	16.9
1992	10,857	517	21.0	12,381	717	17.3	25,373	4,210	6.0	11,558	683	16.9
1993	10,804	527	20.5	12,430	714	17.4	26,262	4,309	6.1	11,595	693	16.7
1994	10,992	531	20.7	12,156	701	17.3	25,838	4,202	6.1	11,683	698	16.7
1995	11,203	530	21.1	12,018	694	17.3	26,514	4,315	6.1	11,793	700	16.8
1996	11,330	534	21.2	11,811	685	17.2	26,092	4,221	6.2	11,813	700	16.9
1997	11,581	539	21.5	12,115	703	17.2	27,032	4,218	6.4	12,107	711	17.0
1998	11,754	544	21.6	12,173	707	17.2	25,397	4,135	6.1	12,211	721	16.9
1999	11,848	553	21.4	11,957	701	17.0	26,014	4,352	6.0	12,206	732	16.7
2000	11,976	547	21.9	11,672	669	17.4	25,617	4,391	5.8	12,164	720	16.9
2001	11,831	534	22.1	11,204	636	17.6	26,602	4,477	5.9	11,887	695	17.1
2002 ^P	12,203	551	22.1	11,365	645	17.6	27,062	4,637	5.8	12,172	715	17.0

^a Through 1989, includes motorcycles.

^b Includes a small number of trucks with 2 axles and 4 tires, such as step vans.

^c Single-unit trucks with 2 axles and 6 or more tires, and combination trucks.

^d Includes buses and motorcycles, which are not shown separately.

P=Preliminary.

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

Web Page: <http://www.eia.doe.gov/emeu/mer/overview.html>.

Sources: • **Passenger Cars: 1990-1994:** U.S. Department of Transportation, Bureau of Transportation Statistics, *National Transportation Statistics 1998*, Table 4-13. • **All Other Data:** • **1973-1994:** Federal Highway Administration (FHWA), *Highway Statistics Summary to 1995*, Table VM-201A. • **1995 forward:** FHWA, *Highway Statistics*, annual reports, Table VM-1.

Table 1.10 Heating Degree-Days by Census Division

Census Divisions	December 1 through December 31					Cumulative July 1 through December 31				
	Normal ^a	2002	2003	Percent Change		Normal ^a	2002	2003	Percent Change	
				Normal to 2003	2002 to 2003				Normal to 2003	2002 to 2003
New England Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont	1,078	1,104	1,030	-4	-7	2,462	2,469	2,278	-7	-8
Middle Atlantic New Jersey, New York, Pennsylvania	998	1,035	963	-4	-7	2,191	2,178	1,981	-10	-9
East North Central Illinois, Indiana, Michigan, Ohio, Wisconsin	1,135	1,076	1,017	-10	-5	2,472	2,422	2,213	-10	-9
West North Central Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota	1,248	1,070	1,070	-14	0	2,695	2,598	2,404	-11	-7
South Atlantic Delaware, Florida, Georgia, Maryland and the District of Columbia, North Carolina, South Carolina, Virginia, West Virginia	555	596	605	9	2	1,083	1,124	1,029	-5	-8
East South Central Alabama, Kentucky, Mississippi, Tennessee	715	723	745	4	3	1,410	1,429	1,320	-6	-8
West South Central Arkansas, Louisiana, Oklahoma, Texas	520	491	473	-9	-4	905	923	768	-15	-17
Mountain Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming	928	840	847	-9	1	2,147	1,999	1,907	-11	-5
Pacific^b California, Oregon, Washington	563	524	531	-6	1	1,253	1,111	1,082	-14	-3
U.S. Average^b	817	794	773	-5	-3	1,739	1,703	1,566	-10	-8

^a "Normal" is based on calculations of data from 1971 through 2000.

^b Excludes Alaska and Hawaii.

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).

Web Page: <http://www.eia.doe.gov/emeu/mer/overview.html>.

Sources: See end of section.

Table 1.11 Cooling Degree-Days by Census Division

Census Divisions	December 1 through December 31					Cumulative January 1 through December 31				
	Normal ^a	2002	2003	Percent Change		Normal ^a	2002	2003	Percent Change	
				Normal to 2003	2002 to 2003				Normal to 2003	2002 to 2003
New England Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont	0	0	0	(^c)	(^c)	417	626	502	20	-20
Middle Atlantic New Jersey, New York, Pennsylvania	0	0	0	(^c)	(^c)	656	901	662	1	-27
East North Central Illinois, Indiana, Michigan, Ohio, Wisconsin	0	0	0	(^c)	(^c)	708	984	633	-11	-36
West North Central Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota	0	0	0	(^c)	(^c)	928	1,121	950	2	-15
South Atlantic Delaware, Florida, Georgia, Maryland and the District of Columbia, North Carolina, South Carolina, Virginia, West Virginia	33	20	17	(^c)	(^c)	1,964	2,249	1,993	1	-11
East South Central Alabama, Kentucky, Mississippi, Tennessee	3	0	0	(^c)	(^c)	1,548	1,857	1,508	-3	-19
West South Central Arkansas, Louisiana, Oklahoma, Texas	10	9	5	(^c)	(^c)	2,449	2,627	2,583	5	-2
Mountain Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming	0	0	0	(^c)	(^c)	1,243	1,545	1,603	29	4
Pacific^b California, Oregon, Washington	1	0	0	(^c)	(^c)	704	748	900	28	20
U.S. Average^b	8	5	4	(^c)	(^c)	1,217	1,436	1,281	5	-11

^a "Normal" is based on calculations of data from 1971 through 2000.

^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).

Web Page: <http://www.eia.doe.gov/emeu/mer/overview.html>.

Sources: See end of section.

Energy Overview

Note 1. Energy Production: Includes production of fossil fuels (coal, dry natural gas, crude oil and lease condensate, and natural gas plant liquids), nuclear electric power, pumped-storage hydroelectric power, and renewable energy. Renewable energy production is assumed to be equivalent to: end-use consumption of wood, waste, alcohol fuels, geothermal heat pump and direct use energy, and solar thermal direct use and photovoltaic energy; and electricity net generation from conventional hydroelectric power, wood, waste, geothermal, solar, and wind. Approximate heat contents (Btu values) are derived by using the conversion factors provided in Appendix A. See Section 10 for further information on renewable energy.

Note 2. Energy Consumption: Includes consumption of fossil fuels (coal, natural gas, and petroleum), some secondary energy derived from fossil fuels (supplemental gaseous fuels and coal coke net imports), nuclear electric power, pumped-storage hydroelectric power, renewable energy, and net imports of electricity. Renewable energy consumption includes: end-use consumption of wood, waste, alcohol fuels, geothermal heat pump and direct use energy, and solar thermal direct use and photovoltaic energy and net electricity generation from conventional hydroelectric power, wood, waste, geothermal, solar, and wind. Approximate heat contents (Btu values) are derived by using the conversion factors provided in Appendix A. See Section 10 for further information on renewable energy.

Note 3. Energy Imports: Includes imports of fossil fuels (coal, natural gas, and petroleum, including crude oil imported for the Strategic Petroleum Reserve), some secondary energy derived from fossil fuels (coal coke imports), and electricity. Approximate heat contents (Btu values) are derived by using the conversion factors provided in Appendix A. See Section 10 for further information on renewable energy.

Note 4. Energy Exports: Includes exports of fossil fuels (coal, natural gas, and petroleum), some secondary energy derived from fossil fuels (coal coke exports), and electricity. Approximate heat contents (Btu values) are derived by using the conversion factors provided in Appendix A. See Section 10 for further information on renewable energy.

Note 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.

Table 1.5 Sources

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

Petroleum Exports

1974-1987: “U.S. Exports,” FT410, December issues.

1988 and 1989: “Report on U.S. Merchandise Trade,” Final Revisions.

1990-1992: “U.S. Merchandise Trade,” Final Report.

1993-2001: “U.S. International Trade in Goods and Services,” Annual Revision.

2002 and 2003: “U.S. International Trade in Goods and Services,” FT-900, monthly.

Petroleum Imports

1974-1987: “U.S. Merchandise Trade,” FT900, December issues, 1975-1988.

1989: “Report on U.S. Merchandise Trade,” Final Revisions.

1990-1993: “U.S. Merchandise Trade,” Final Report.

1994-2001: “U.S. International Trade in Goods and Services,” Annual Revision.

2002 and 2003: “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.

1990-1992: “U.S. Merchandise Trade,” Final Report.

1993-2001: “U.S. International Trade in Goods and Services,” Annual Revision.

2002 and 2003: “U.S. International Trade in Goods and Services,” FT-900, monthly.

Petroleum, 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.

1992-2001: "U.S. International Trade in Goods and Services," Annual Revision.

2002 and 2003: "U.S. International Trade in Goods and Services," FT-900, monthly.

Tables 1.10 and 1.11 Sources

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 the 2000 Census 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 by Sector

U.S. total energy consumption in October 2003 was 7.7 quadrillion Btu, 1 percent lower than in October 2002.

Residential sector total consumption was 1.4 quadrillion Btu in October 2003, 4 percent below the October 2002 level. The sector accounted for 18 percent of total energy consumption.

Commercial sector total consumption was 1.3 quadrillion Btu in October 2003, 6 percent lower than the October 2002 level. The sector accounted for 17 percent of total energy consumption.

Industrial sector total consumption was 2.7 quadrillion Btu in October 2003, 1 percent lower than the October 2002

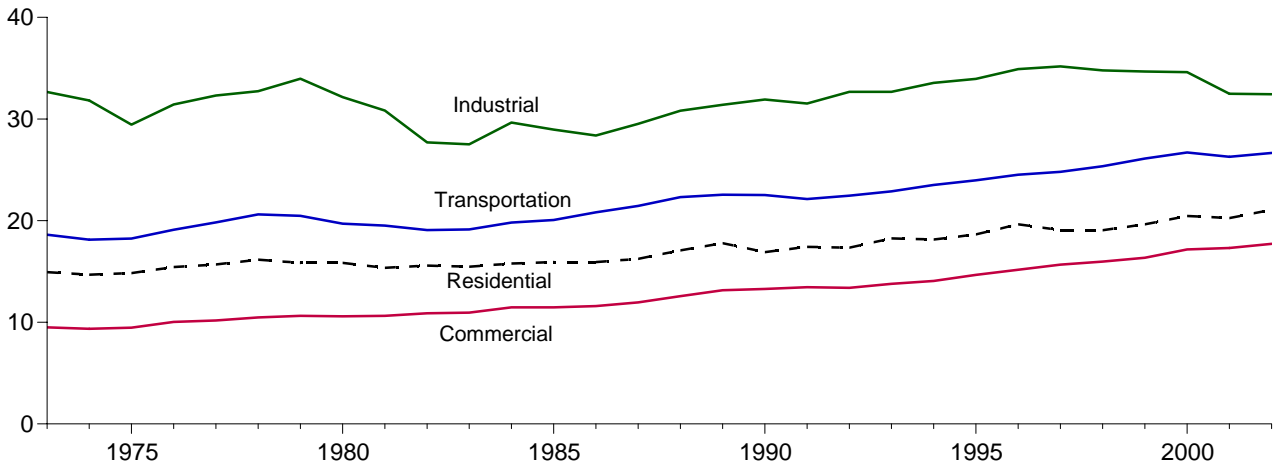
level. The sector accounted for 35 percent of total energy consumption.

Transportation sector total consumption was 2.3 quadrillion Btu in October 2003, 3 percent higher than the October 2002 level. The sector accounted for 30 percent of total energy consumption.

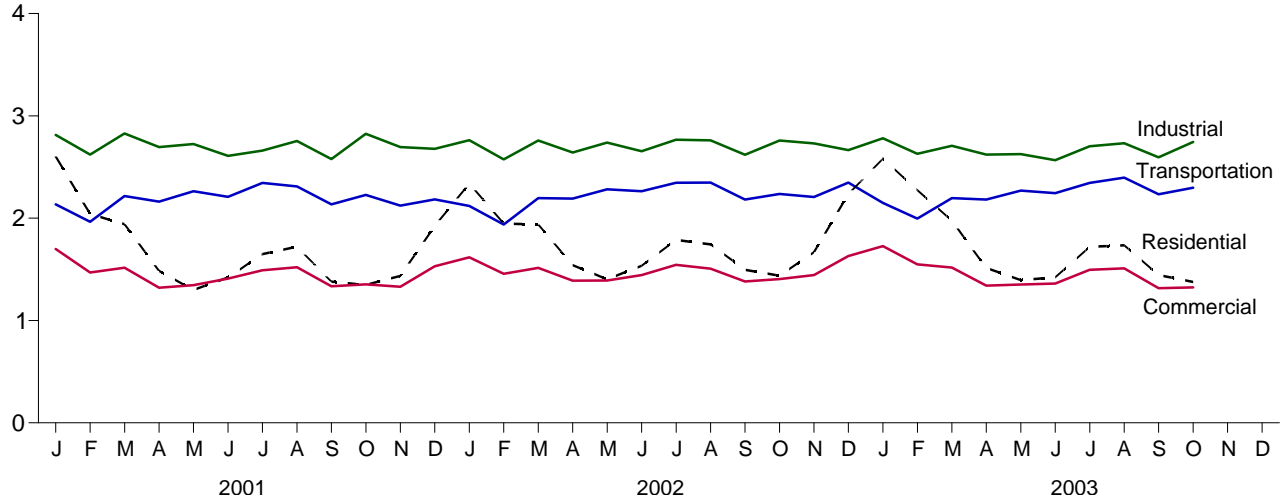
Electric power sector primary consumption was forecast as 3.0 quadrillion Btu in October 2003, 3 percent lower than the October 2002 level. Fossil fuels accounted for 71 percent of all primary energy consumed by the electric power sector; nuclear electric power 21 percent; and renewable energy 9 percent.

Figure 2.1 Energy Consumption by Sector
(Quadrillion Btu)

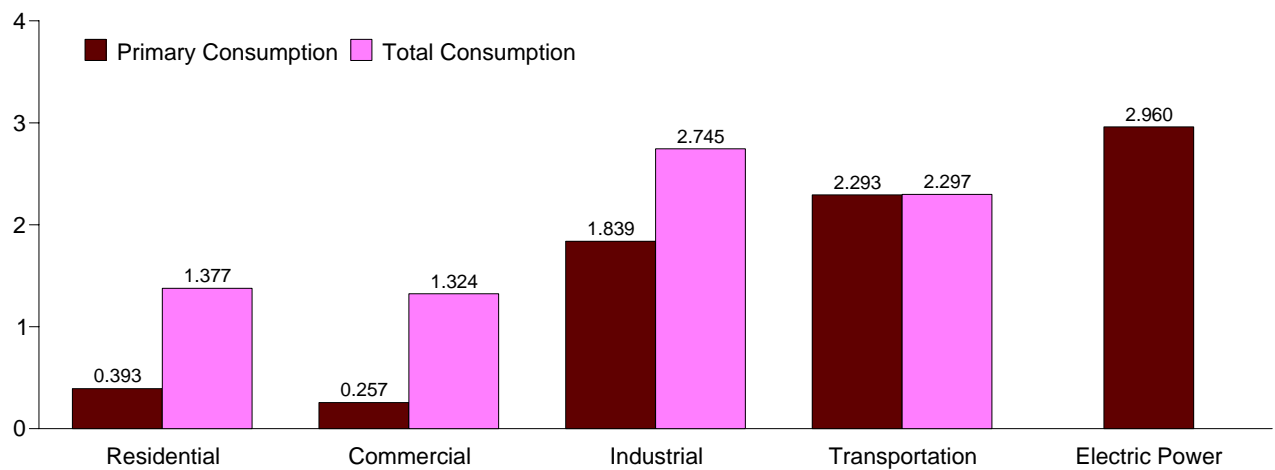
Total Consumption by End-Use Sector, 1973-2002



Total Consumption by End-Use Sector, Monthly



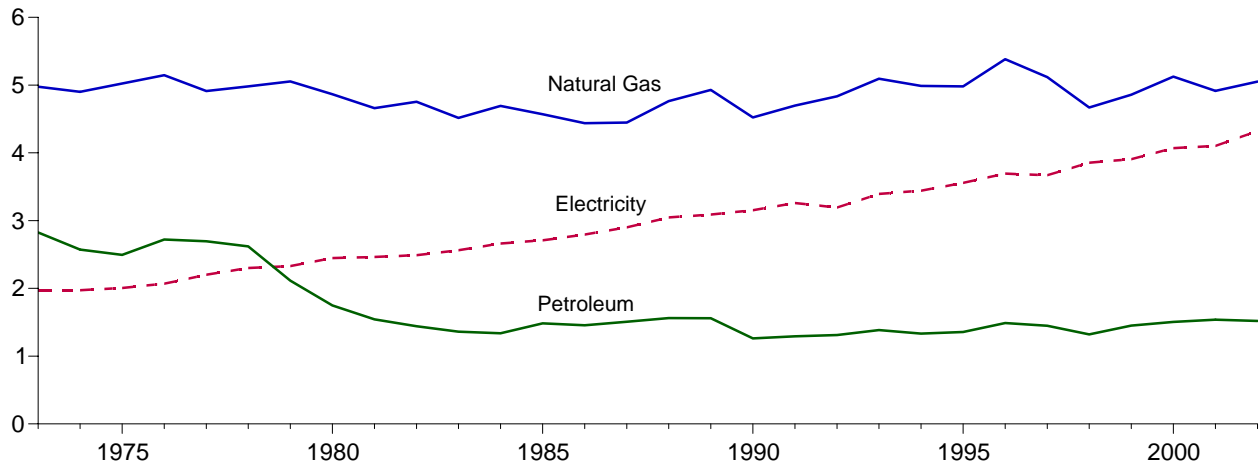
By Sector, October 2003



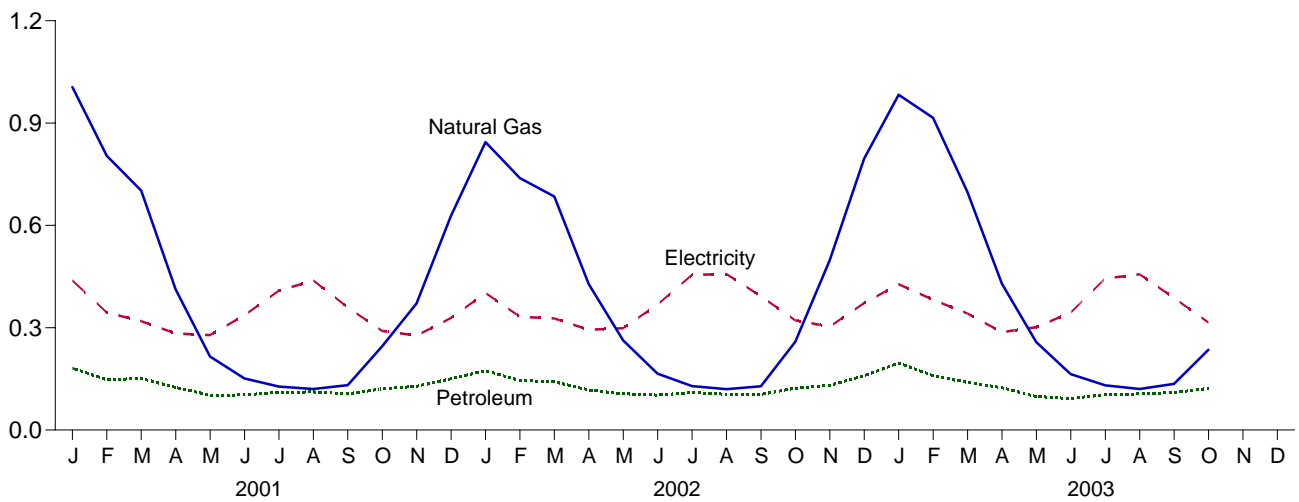
Note: Because vertical scales differ, graphs should not be compared.
 Web Page: <http://www.eia.doe.gov/emeu/mer/consump.html>.
 Source: Table 2.1.

Figure 2.2 Residential Sector Energy Consumption
(Quadrillion Btu)

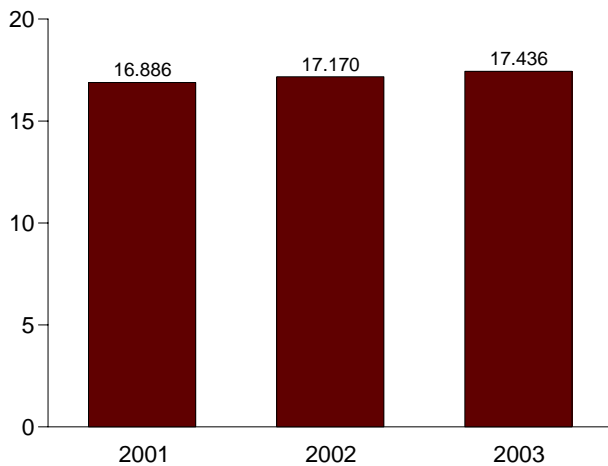
By Major Sources, 1973-2002



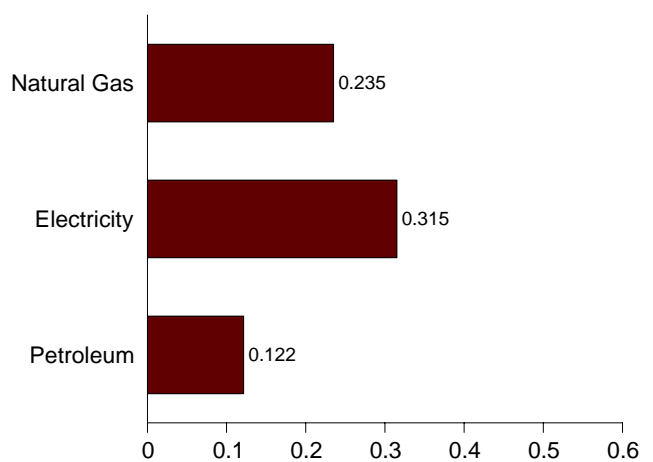
By Major Sources, Monthly



Total, January-October



By Major Sources, October 2003



Note: Because vertical scales differ, graphs should not be compared.
Web Page: <http://www.eia.doe.gov/emeu/mer/consump.html>.
Source: Table 2.2.

Table 2.2 Residential Sector Energy Consumption
(Quadrillion Btu)

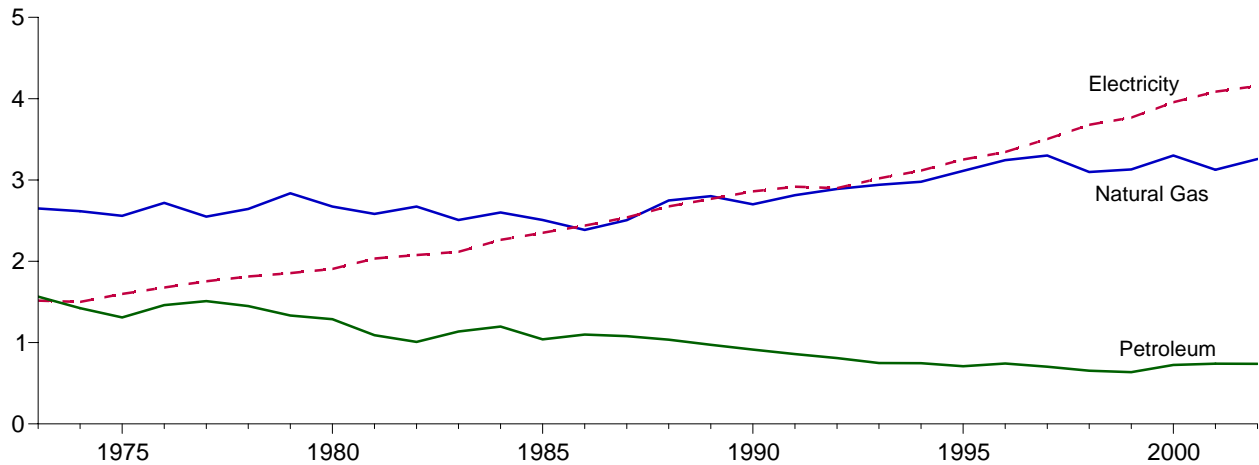
	Primary Consumption								Total Primary	Electricity Retail Sales ^d	Electrical System Energy Losses ^e	Total
	Fossil Fuels				Renewable Energy							
	Coal	Natural Gas ^a	Petroleum	Total	Wood	Geo-thermal ^b	Solar ^c	Total				
1973 Total	0.094	4.977	2.825	7.896	0.354	NA	NA	0.354	8.250	1.976	4.703	14.930
1974 Total	0.082	4.901	2.573	7.557	0.371	NA	NA	0.371	7.928	1.973	4.783	14.683
1975 Total	0.063	5.023	2.495	7.580	0.425	NA	NA	0.425	8.006	2.007	4.829	14.842
1976 Total	0.059	5.147	2.720	7.927	0.482	NA	NA	0.482	8.408	2.069	4.963	15.441
1977 Total	0.057	4.913	2.695	7.666	0.542	NA	NA	0.542	8.207	2.202	5.280	15.689
1978 Total	0.049	4.981	2.620	7.651	0.622	NA	NA	0.622	8.272	2.301	5.582	16.156
1979 Total	0.037	5.055	2.114	7.206	0.728	NA	NA	0.728	7.934	2.330	5.578	15.842
1980 Total	0.031	4.866	1.748	6.645	0.859	NA	NA	0.859	7.504	2.448	5.897	15.848
1981 Total	0.030	4.660	1.543	6.234	0.869	NA	NA	0.869	7.103	2.464	5.786	15.353
1982 Total	0.032	4.753	1.441	6.226	0.937	NA	NA	0.937	7.163	2.489	5.925	15.577
1983 Total	0.031	4.516	1.362	5.909	0.925	NA	NA	0.925	6.834	2.562	6.063	15.459
1984 Total	0.040	4.692	1.337	6.069	0.923	NA	NA	0.923	6.992	2.662	6.123	15.777
1985 Total	0.039	4.571	1.483	6.093	0.899	NA	NA	0.899	6.992	2.709	6.227	15.928
1986 Total	0.040	4.439	1.457	5.936	0.876	NA	NA	0.876	6.812	2.795	6.320	15.927
1987 Total	0.037	4.449	1.508	5.994	0.852	NA	NA	0.852	6.846	2.902	6.485	16.233
1988 Total	0.037	4.765	1.563	6.364	0.885	NA	NA	0.885	7.249	3.046	6.774	17.069
1989 Total	0.031	4.929	1.560	6.519	0.918	0.005	0.053	0.976	7.495	3.090	7.189	17.774
1990 Total	0.031	4.523	1.263	5.817	0.581	0.006	0.056	0.642	6.460	3.153	7.287	16.900
1991 Total	0.025	4.697	1.293	6.015	0.613	0.006	0.058	0.677	6.692	3.260	7.463	17.414
1992 Total	0.026	4.835	1.311	6.172	0.645	0.006	0.060	0.711	6.883	3.193	7.263	17.339
1993 Total	0.026	5.095	1.385	6.506	0.548	0.007	0.062	0.616	7.122	3.394	7.733	18.249
1994 Total	0.021	4.988	1.333	6.342	0.537	0.006	0.064	0.607	6.949	3.441	7.746	18.135
1995 Total	0.017	4.981	1.356	6.355	0.596	0.007	0.065	0.667	7.022	3.557	8.073	18.653
1996 Total	0.017	5.383	1.489	6.888	0.595	0.007	0.065	0.667	7.556	3.694	8.393	19.643
1997 Total	0.016	5.118	1.448	6.582	0.433	0.008	0.065	0.506	7.088	3.671	8.308	19.067
1998 Total	0.012	4.669	1.322	6.003	0.387	0.008	0.065	0.459	6.462	3.856	8.733	19.051
1999 Total	0.014	4.858	1.452	6.324	0.414	0.009	0.064	0.486	6.810	3.906	8.917	19.634
2000 Total	0.011	5.126	1.506	6.643	0.433	0.009	0.061	0.503	7.146	4.069	9.238	20.453
2001 January	0.001	1.006	0.181	1.188	0.035	0.001	0.005	0.040	1.229	0.438	0.935	2.602
February	0.001	0.804	0.148	0.952	0.031	0.001	0.005	0.037	0.989	0.345	0.708	2.042
March	0.001	0.702	0.151	0.854	0.035	0.001	0.005	0.040	0.895	0.319	0.728	1.942
April	0.001	0.413	0.125	0.539	0.033	0.001	0.005	0.039	0.578	0.283	0.624	1.485
May	0.001	0.216	0.102	0.318	0.035	0.001	0.005	0.040	0.359	0.278	0.662	1.299
June	0.001	0.151	0.103	0.255	0.033	0.001	0.005	0.039	0.294	0.337	0.790	1.421
July	0.001	0.127	0.111	0.239	0.035	0.001	0.005	0.040	0.280	0.409	0.961	1.649
August	0.001	0.120	0.112	0.233	0.035	0.001	0.005	0.040	0.274	0.438	1.009	1.721
September	0.001	0.131	0.106	0.238	0.033	0.001	0.005	0.039	0.277	0.360	0.743	1.379
October	0.001	0.245	0.121	0.367	0.035	0.001	0.005	0.040	0.407	0.291	0.648	1.347
November	0.001	0.371	0.128	0.501	0.033	0.001	0.005	0.039	0.540	0.277	0.619	1.436
December	0.002	0.628	0.150	0.780	0.035	0.001	0.005	0.040	0.821	0.329	0.774	1.924
Total	0.012	4.915	1.539	6.465	0.407	0.009	0.060	0.476	6.942	4.103	9.211	20.256
2002 January	0.001	0.844	0.174	1.019	0.030	0.001	0.005	0.036	1.055	0.402	R 881	R 2.338
February	0.001	0.739	0.145	0.885	0.027	0.001	0.004	0.032	0.917	0.332	R 699	R 1.948
March	0.001	0.684	0.141	0.827	0.030	0.001	0.005	0.036	0.862	R 327	R 749	R 1.939
April	0.001	0.428	0.117	0.546	0.029	0.001	0.005	0.034	0.581	0.294	R 666	R 1.541
May	0.001	0.263	0.106	0.370	0.030	0.001	0.005	0.036	0.405	0.299	R 699	R 1.403
June	0.001	0.165	0.102	0.268	0.029	0.001	0.005	0.034	0.303	0.368	R 865	R 1.535
July	0.001	0.129	0.110	0.239	0.030	0.001	0.005	0.036	0.275	R 455	R 1.058	R 1.788
August	0.001	0.120	0.105	0.226	0.030	0.001	0.005	0.036	0.261	0.457	R 1.026	R 1.745
September	0.001	0.128	0.104	0.233	0.029	0.001	0.005	0.034	0.267	R 392	R 835	R 1.495
October	0.001	0.259	0.123	0.382	0.030	0.001	0.005	0.036	0.417	0.322	R 699	R 1.438
November	0.001	0.498	0.131	0.630	0.029	0.001	0.005	0.034	0.664	R 303	R 700	R 1.668
December	0.002	0.796	0.159	0.956	0.030	0.001	0.005	0.036	0.992	R 372	R 871	R 2.235
Total	0.012	5.052	1.519	6.582	0.350	0.010	0.058	0.419	7.001	R 4.323	R 9.752	R 21.076
2003 January	0.001	0.983	0.196	1.181	0.030	0.001	0.005	0.036	1.216	0.428	0.936	2.580
February	0.001	0.915	0.159	1.076	0.027	0.001	0.004	0.032	1.108	0.382	0.785	2.275
March	0.001	0.698	0.139	0.838	0.030	0.001	0.005	0.036	0.874	0.342	0.760	1.976
April	0.001	0.429	0.124	0.555	0.029	0.001	0.005	0.034	0.589	0.287	0.637	1.513
May	0.001	0.258	0.098	0.357	0.030	0.001	0.005	0.036	0.392	0.301	0.702	1.396
June	0.001	0.164	0.092	0.257	0.029	0.001	0.005	0.034	0.291	0.344	0.787	1.422
July	0.001	0.131	0.104	0.236	0.030	0.001	0.005	0.036	0.271	0.444	1.004	1.720
August	0.001	0.120	0.106	0.227	0.030	0.001	0.005	0.036	0.263	0.457	1.016	1.735
September	0.001	RF 135	0.110	R 246	0.029	0.001	0.005	0.034	R 280	R 387	R 776	R 1.444
October	0.001	F 235	0.122	0.358	0.030	0.001	0.005	0.036	0.393	F 315	0.668	1.377
10-Month Total	0.009	E 4.069	1.251	5.329	0.292	0.008	0.049	0.349	5.678	E 3.688	8.070	17.436
2002 10-Month Total	0.009	3.759	1.228	4.996	0.292	0.008	0.049	0.349	5.345	3.647	8.178	17.170
2001 10-Month Total	0.009	3.915	1.260	5.184	0.339	0.008	0.050	0.397	5.581	3.498	7.808	16.886

^a Includes supplemental gaseous fuels.
^b Geothermal heat pump and direct use energy.
^c Solar thermal direct use and photovoltaic electricity generation. Includes small amounts of commercial sector use.
^d Electricity retail sales to ultimate customers reported by electric utilities and other energy service providers.

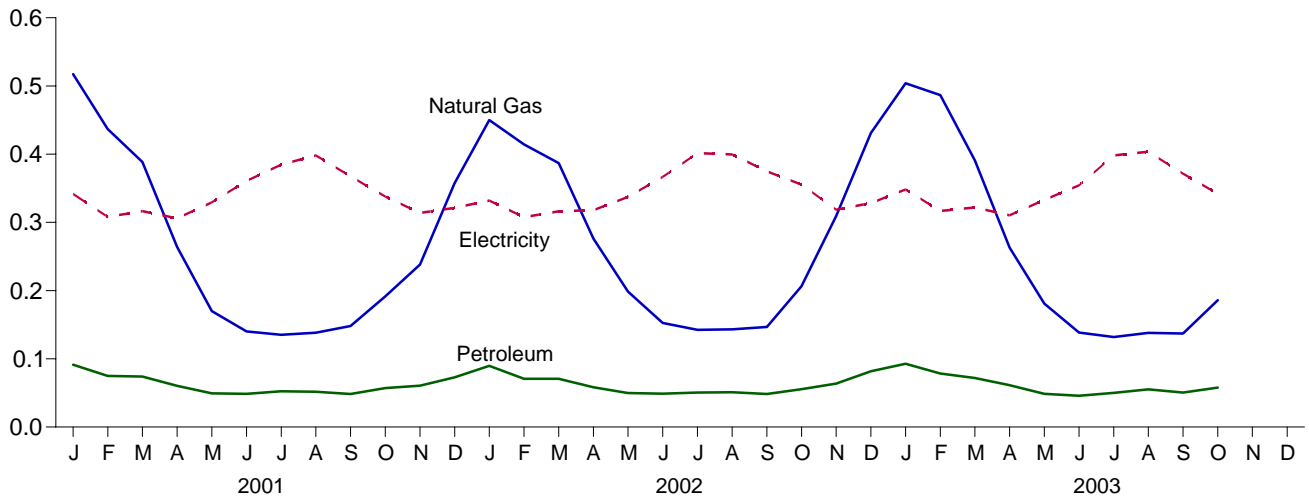
^e See Note 12 at end of section.
R=Revised. E=Estimate. NA=Not available. F=Forecast.
Notes: • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.
Web Page: <http://www.eia.doe.gov/emeu/mer/consump.html>.
Additional Notes and Sources: See end of section.

Figure 2.3 Commercial Sector Energy Consumption
(Quadrillion Btu)

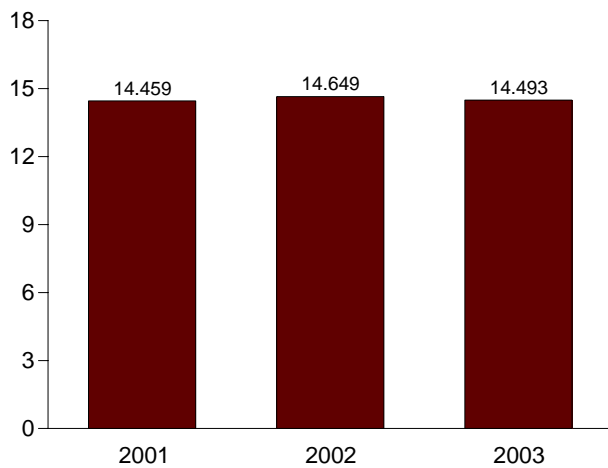
By Major Sources, 1973-2002



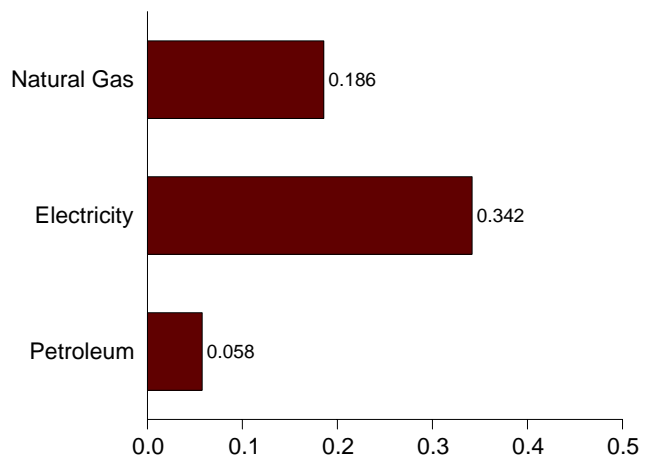
By Major Sources, Monthly



Total, January-October



By Major Sources, October 2003



Note: Because vertical scales differ, graphs should not be compared.
Web Page: <http://www.eia.doe.gov/emeu/mer/consump.html>.
Source: Table 2.3.

Table 2.3 Commercial Sector Energy Consumption
(Quadrillion Btu)

	Primary Consumption								Total Primary	Electricity Retail Sales ^d	Electrical System Energy Losses ^e	Total
	Fossil Fuels				Renewable Energy							
	Coal	Natural Gas ^a	Petroleum	Total	Hydro-power ^b	Wood and Waste	Geo-thermal ^c	Total				
1973 Total	0.160	2.649	1.565	4.374	NA	0.007	NA	0.007	4.381	1.517	3.609	9.507
1974 Total	.175	2.617	1.423	4.214	NA	.007	NA	.007	4.221	1.501	3.640	9.363
1975 Total	.147	2.558	1.310	4.015	NA	.008	NA	.008	4.023	1.598	3.845	9.466
1976 Total	.144	2.718	1.461	4.324	NA	.009	NA	.009	4.333	1.678	4.025	10.035
1977 Total	.148	2.548	1.511	4.207	NA	.010	NA	.010	4.217	1.754	4.206	10.177
1978 Total	.165	2.643	1.450	4.257	NA	.012	NA	.012	4.269	1.813	4.398	10.481
1979 Total	.149	2.836	1.334	4.319	NA	.014	NA	.014	4.333	1.854	4.439	10.627
1980 Total	.115	2.674	1.288	4.076	NA	.021	NA	.021	4.097	1.906	4.591	10.594
1981 Total	.137	2.583	1.090	3.810	NA	.021	NA	.021	3.831	2.033	4.774	10.638
1982 Total	.155	2.673	1.008	3.837	NA	.022	NA	.022	3.859	2.077	4.944	10.880
1983 Total	.162	2.508	1.136	3.805	NA	.022	NA	.022	3.827	2.116	5.008	10.952
1984 Total	.169	2.600	1.198	3.967	NA	.022	NA	.022	3.989	2.264	5.209	11.463
1985 Total	.137	2.508	1.039	3.684	NA	.024	NA	.024	3.708	2.351	5.405	11.465
1986 Total	.135	2.386	1.099	3.620	NA	.027	NA	.027	3.647	2.439	5.515	11.600
1987 Total	.125	2.505	1.079	3.709	NA	.029	NA	.029	3.738	2.539	5.674	11.951
1988 Total	.131	2.748	1.037	3.916	NA	.032	NA	.032	3.948	2.675	5.948	12.571
1989 Total	.115	2.802	.973	3.891	.001	.058	.003	.061	3.952	2.767	6.437	13.156
1990 Total	.124	2.701	.913	3.739	.001	.067	.003	.071	3.810	2.860	6.611	13.281
1991 Total	.116	2.813	.859	3.788	.001	.068	.003	.072	3.860	2.918	6.681	13.458
1992 Total	.117	2.890	.811	3.817	.001	.076	.003	.081	3.898	2.900	6.596	13.394
1993 Total	.117	2.942	.750	3.809	.001	.079	.003	.084	3.892	3.019	6.877	13.788
1994 Total	.118	2.979	.747	3.844	.001	.081	.004	.086	3.930	3.116	7.013	14.059
1995 Total	.117	3.113	.710	3.940	.001	.086	.005	.092	4.032	3.252	7.381	14.665
1996 Total	.122	3.244	.743	4.108	.001	.103	.005	.110	4.218	3.344	7.599	15.161
1997 Total	.129	3.302	.704	4.135	.001	.107	.006	.113	4.248	3.503	7.928	15.679
1998 Total	.093	3.098	.653	3.845	.001	.102	.007	.111	3.956	3.678	8.330	15.964
1999 Total	.103	3.130	.637	3.870	.001	.106	.007	.114	3.984	3.766	8.597	16.347
2000 Total	.092	3.301	.726	4.119	.001	.100	.008	.109	4.228	3.956	8.982	17.166
2001 January	.012	.517	.091	.620	(s)	.007	.001	.007	.628	.342	.729	1.698
February	.009	.437	.075	.521	(s)	.006	.001	.007	.528	.308	.633	1.469
March	.008	.389	.074	.471	(s)	.007	.001	.007	.478	.317	.722	1.516
April	.008	.264	.060	.333	(s)	.007	.001	.007	.340	.306	.675	1.320
May	.005	.170	.049	.224	(s)	.007	.001	.007	.232	.329	.783	1.345
June	.006	.140	.049	.195	(s)	.007	.001	.008	.202	.361	.847	1.410
July	.007	.135	.053	.195	(s)	.007	.001	.008	.203	.385	.904	1.491
August	.007	.138	.052	.197	(s)	.007	.001	.008	.205	.398	.917	1.520
September	.005	.148	.048	.201	(s)	.007	.001	.007	.209	.367	.759	1.335
October	.006	.192	.057	.255	(s)	.007	.001	.007	.262	.338	.754	1.354
November	.008	.238	.061	.307	(s)	.006	.001	.007	.314	.314	.701	1.329
December	.014	.357	.073	.444	(s)	.014	.001	.008	.452	.321	.756	1.530
Total	.097	3.126	.742	3.964	.001	.080	.008	.089	4.054	4.086	9.171	17.310
2002 January	.011	.450	.090	.551	(s)	.007	.001	R .007	R .558	R .332	R .728	R 1.618
February	.010	.414	.071	.495	(s)	R .006	.001	R .007	R .501	R .308	R .648	R 1.457
March	.009	.387	.071	.467	(s)	R .007	.001	R .007	R .474	R .316	R .724	R 1.514
April	.008	.276	.058	.342	(s)	.007	.001	R .007	R .350	R .318	R .721	R 1.389
May	.006	.199	.050	.255	(s)	.007	.001	.008	.263	R .337	R .791	R 1.391
June	.006	.153	.049	.207	(s)	.007	.001	.008	.215	R .367	R .862	R 1.443
July	.008	.143	.051	.201	(s)	R .008	.001	.008	.209	R .401	R .933	R 1.544
August	.007	.143	.051	.201	(s)	R .008	.001	.008	R .210	R .400	R .898	R 1.507
September	.005	.147	.048	.200	(s)	.007	.001	.008	.208	R .375	R .799	R 1.382
October	.007	.206	.056	.268	(s)	R .007	.001	R .008	R .276	R .355	R .773	R 1.405
November	.010	.309	.064	.383	(s)	.007	.001	.008	.391	R .319	R .735	R 1.445
December	.013	.431	.082	.526	(s)	R .007	.001	R .007	R .533	R .328	R .768	R 1.630
Total	.098	3.258	.739	4.095	R (s)	R .084	.009	R .093	R 4.188	R 4.157	R 9.377	R 17.721
2003 January	.012	.504	.093	.609	(s)	.007	.001	.007	.616	.348	.762	1.727
February	.010	.487	.078	.575	(s)	.007	.001	.007	.582	.317	.650	1.549
March	.007	.391	.072	.470	(s)	.008	.001	.009	.479	.322	.716	1.517
April	.008	.263	.061	.333	(s)	.008	.001	.008	.341	.311	.689	1.341
May	.006	.181	.049	.236	(s)	.008	.001	.009	.244	.333	.775	1.352
June	.005	.139	.046	.190	(s)	.008	.001	.008	.198	.354	.809	1.362
July	.007	.132	.050	.190	(s)	.008	.001	.009	.198	.398	.900	1.496
August	.007	.138	.055	.201	(s)	.008	.001	.008	.209	.403	.897	1.510
September	.005	RF .137	R .051	R .193	(s)	R .007	.001	R .008	R .200	R .371	R .744	R 1.316
October	.006	F .186	.058	.249	(s)	F .007	.001	.008	.257	F .342	.724	1.324
10-Month Total	.075	E 2.557	.613	3.244	.001	E .073	.007	.081	3.326	E 3.499	7.668	14.493
2002 10-Month Total	.075	2.517	.594	3.186	(s)	.070	.007	.078	3.264	3.510	7.875	14.649
2001 10-Month Total	.074	2.530	.608	3.212	.001	.067	.007	.075	3.287	3.451	7.721	14.459

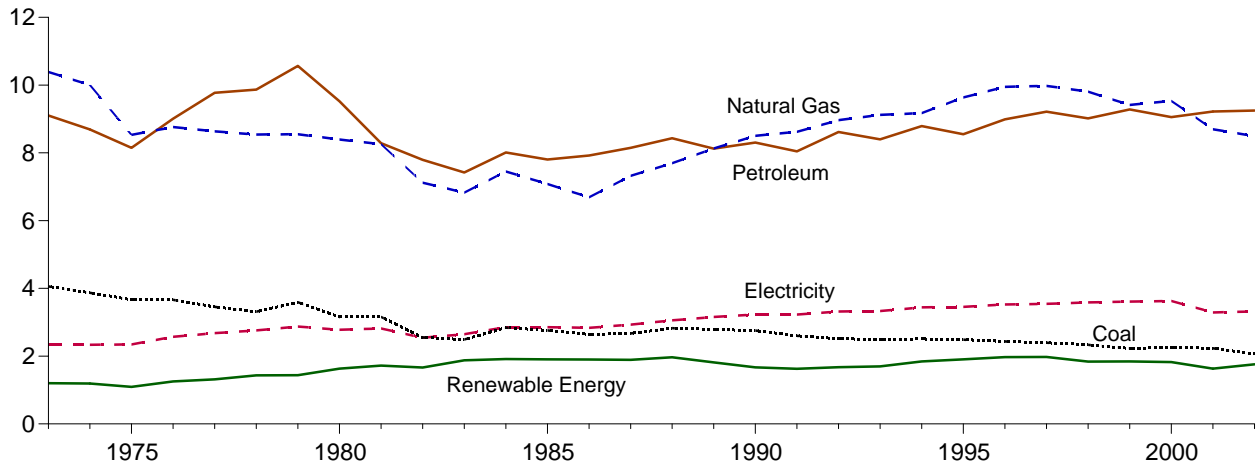
a Includes supplemental gaseous fuels.
b Conventional hydroelectric power.
c Geothermal heat pump and direct use energy.
d Electricity retail sales to ultimate customers reported by electric utilities and other energy service providers.
e See Note 12 at end of section.

R=Revised. E=Estimate. NA=Not available. F=Forecast. (s)=Less than 0.5 trillion Btu.

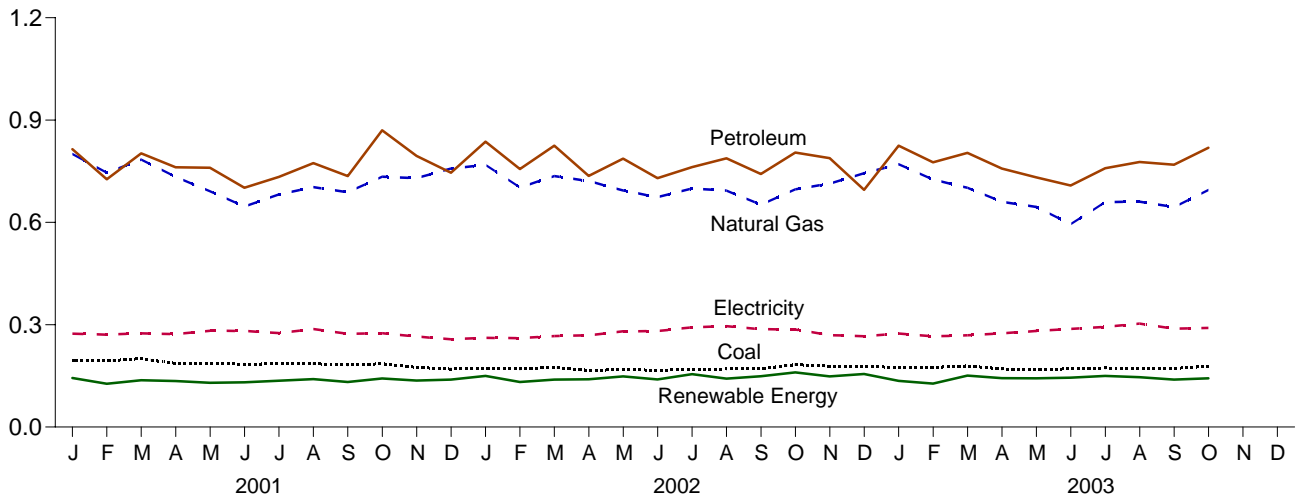
Notes: • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.
Web Page: <http://www.eia.doe.gov/emeu/mer/consump.html>.
Additional Notes and Sources: See end of section.

Figure 2.4 Industrial Sector Energy Consumption
(Quadrillion Btu)

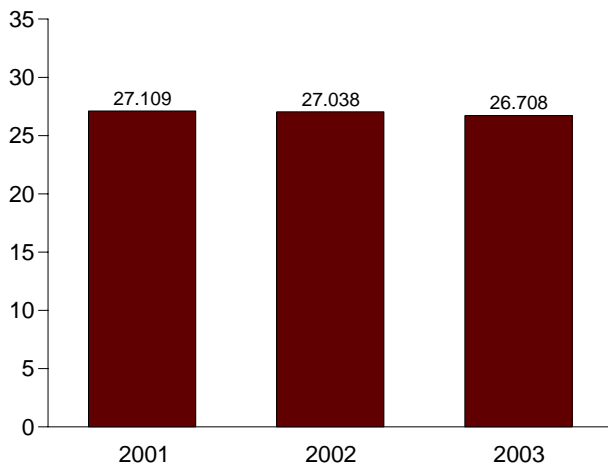
By Major Sources, 1973-2002



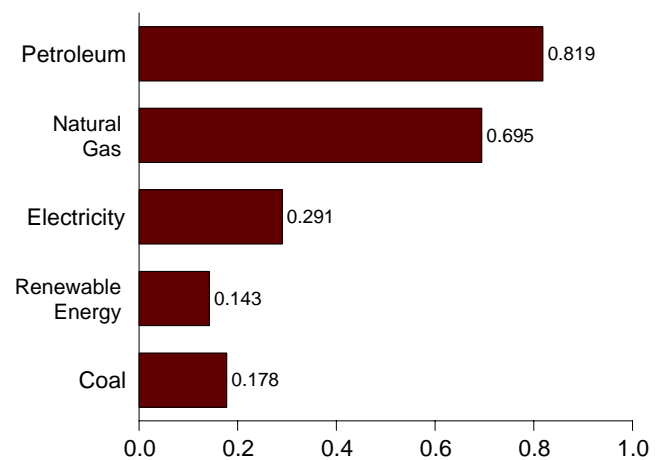
By Major Sources, Monthly



Total, January-October



By Major Sources, October 2003



Note: Because vertical scales differ, graphs should not be compared.
Web Page: <http://www.eia.doe.gov/emeu/mer/consump.html>.
Source: Table 2.4.

Table 2.4 Industrial Sector Energy Consumption
(Quadrillion Btu)

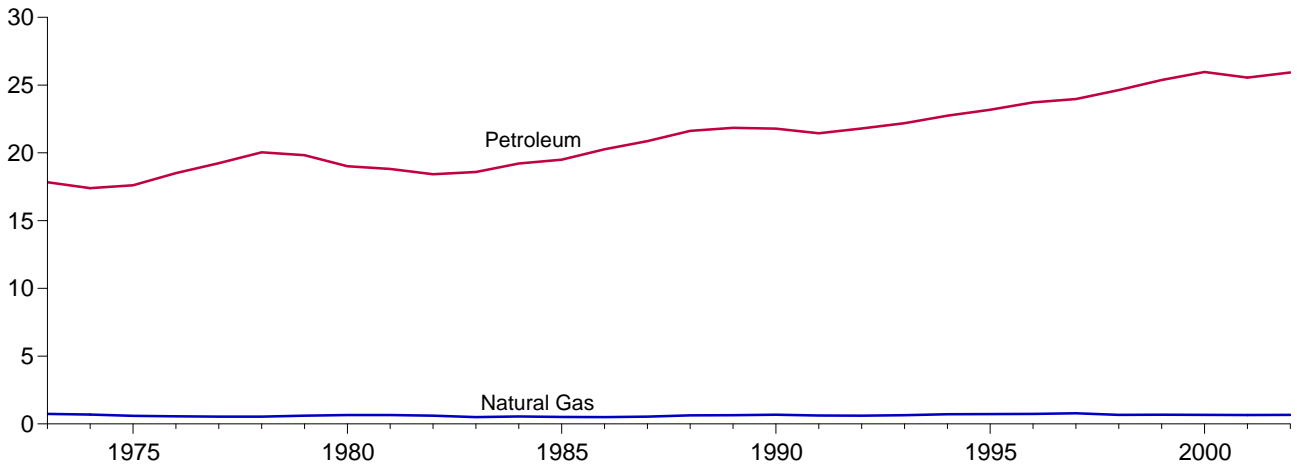
	Primary Consumption								Total Primary	Electricity Retail Sales ^g	Electrical System Energy Losses ^h	Total ^b
	Fossil Fuels				Renewable Energy							
	Coal	Natural Gas ^a	Petroleum	Total ^b	Hydro-power ^c	Wood ^d and Waste ^e	Geo-thermal ^f	Total				
1973 Total	4.057	10.388	9.104	23.541	0.035	1.165	NA	1.200	24.741	2.341	5.571	32.653
1974 Total	3.870	10.004	8.694	22.624	.033	1.159	NA	1.192	23.816	2.337	5.666	31.819
1975 Total	3.667	8.532	8.146	20.359	.032	1.063	NA	1.096	21.454	2.346	5.647	29.447
1976 Total	3.661	8.762	9.010	21.432	.033	1.220	NA	1.253	22.685	2.573	6.171	31.429
1977 Total	3.454	8.635	9.774	21.879	.033	1.281	NA	1.314	23.193	2.682	6.432	32.307
1978 Total	3.314	8.539	9.867	21.845	.032	1.400	NA	1.432	23.277	2.761	6.696	32.733
1979 Total	3.593	8.549	10.568	22.773	.034	1.405	NA	1.439	24.211	2.873	6.878	33.962
1980 Total	3.155	8.395	9.525	21.040	.033	1.600	NA	1.633	22.673	2.781	6.698	32.152
1981 Total	3.157	8.257	8.285	19.682	.033	1.689	NA	1.722	21.404	2.817	6.615	30.836
1982 Total	2.552	7.121	7.794	17.446	.033	1.634	NA	1.667	19.112	2.542	6.050	27.704
1983 Total	2.490	6.826	7.420	16.720	.033	1.845	NA	1.879	18.598	2.648	6.265	27.511
1984 Total	2.842	7.448	8.014	18.292	.033	1.883	NA	1.916	20.208	2.859	6.576	29.643
1985 Total	2.760	7.080	7.805	17.632	.033	1.875	NA	1.908	19.540	2.855	6.563	28.958
1986 Total	2.641	6.690	7.920	17.234	.033	1.866	NA	1.899	19.133	2.834	6.408	28.375
1987 Total	2.673	7.323	8.151	18.155	.033	1.858	NA	1.891	20.046	2.928	6.545	29.519
1988 Total	2.828	7.696	8.430	18.993	.033	1.933	NA	1.965	20.958	3.059	6.801	30.818
1989 Total	2.787	8.131	8.126	19.074	.028	1.784	.002	1.814	20.888	3.158	7.349	31.396
1990 Total	2.756	8.502	8.305	19.568	.031	1.634	.002	1.667	21.235	3.226	7.457	31.918
1991 Total	2.601	8.619	8.047	19.277	.030	1.595	.002	1.626	20.903	3.230	7.394	31.527
1992 Total	2.515	8.967	8.616	20.133	.031	1.640	.002	1.672	21.806	3.319	7.548	32.673
1993 Total	2.496	9.120	8.398	20.042	.030	1.666	.002	1.697	21.739	3.334	7.596	32.669
1994 Total	2.510	9.172	8.792	20.532	.062	1.779	.003	1.844	22.376	3.439	7.742	33.557
1995 Total	2.488	9.637	8.552	20.738	.055	1.847	.003	1.905	22.643	3.455	7.842	33.941
1996 Total	2.434	9.947	8.989	21.393	.061	1.907	.003	1.971	23.364	3.527	8.014	34.905
1997 Total	2.395	9.976	9.214	21.632	.058	1.915	.003	1.976	23.608	3.542	8.017	35.167
1998 Total	2.335	9.806	9.017	21.226	.055	1.784	.003	1.841	23.067	3.587	8.124	34.777
1999 Total	2.227	9.415	9.284	20.983	.049	1.791	.004	1.843	22.826	3.611	8.242	34.679
2000 Total	2.256	9.535	9.055	20.912	.042	1.781	.004	1.828	22.740	3.631	8.245	34.616
2001 January	.194	.800	.815	1.812	.002	.141	(s)	.144	1.956	.274	.584	2.814
February	.194	.745	.727	1.668	.002	.124	(s)	.127	1.795	.271	.556	2.622
March	.201	.784	.803	1.790	.003	.133	(s)	.137	1.927	.275	.626	2.829
April	.186	.734	.761	1.687	.003	.132	(s)	.135	1.821	.272	.601	2.694
May	.187	.691	.760	1.641	.003	.126	(s)	.130	1.771	.282	.671	2.725
June	.184	.647	.701	1.534	.003	.128	(s)	.131	1.666	.282	.662	2.609
July	.185	.682	.734	1.601	.002	.133	(s)	.136	1.737	.276	.648	2.660
August	.186	.704	.774	1.665	.003	.137	(s)	.140	1.806	.287	.662	2.755
September	.182	.689	.736	1.607	.002	.129	(s)	.132	1.739	.273	.655	2.578
October	.185	.734	.870	1.794	.002	.140	(s)	.142	1.936	.275	.613	2.824
November	.175	.730	.795	1.701	.002	.134	(s)	.136	1.838	.265	.593	2.696
December	.170	.758	.745	1.675	.003	.136	(s)	.139	1.814	.257	.606	2.678
Total	2.230	8.697	9.220	20.176	.032	1.593	.005	1.630	21.806	3.290	7.385	32.480
2002 January	.173	.769	R .837	R 1.778	.003	R .146	(s)	.150	R 1.928	R .261	R .573	R 2.762
February	.171	.703	R .757	R 1.632	.003	R .129	(s)	R .132	R 1.764	R .261	R .549	R 2.574
March	.175	.736	R .825	R 1.744	.003	R .136	(s)	R .139	R 1.883	R .267	R .610	R 2.759
April	.166	.721	R .736	R 1.622	.003	R .136	(s)	R .140	R 1.762	R .269	R .611	R 2.642
May	.168	.694	R .787	R 1.653	.003	R .145	(s)	R .148	R 1.802	R .281	R .657	R 2.740
June	.167	.674	R .730	R 1.573	.003	R .136	(s)	R .139	R 1.712	R .281	R .661	R 2.654
July	.168	.699	R .762	R 1.639	.003	R .152	(s)	R .155	R 1.794	R .292	R .680	R 2.766
August	.171	.693	R .788	R 1.659	.003	R .139	(s)	R .142	R 1.801	R .296	R .665	R 2.761
September	.170	.652	R .742	R 1.572	.002	R .146	(s)	R .149	R 1.722	R .287	R .611	R 2.620
October	.183	.697	R .805	R 1.691	.003	R .157	(s)	R .160	R 1.851	R .286	R .622	R 2.759
November	.178	.714	R .788	R 1.690	.005	R .144	(s)	R .149	R 1.839	R .270	R .622	R 2.731
December	.178	.744	R .695	R 1.621	.005	R .150	(s)	R .156	R 1.776	R .266	R .623	R 2.666
Total	2.068	8.495	R 9.251	R 19.874	R .039	R 1.716	.005	R 1.759	R 21.633	R 3.317	R 7.483	R 32.433
2003 January	.174	.771	.825	1.771	.004	.131	(s)	.135	1.906	.274	.600	2.781
February	.175	.726	.776	1.690	.004	.123	(s)	.127	1.817	.266	.546	2.629
March	.179	.702	.804	1.688	.005	.145	(s)	.151	1.839	.269	.599	2.707
April	.170	.660	R .758	R 1.593	.004	.139	(s)	.143	R 1.736	.275	.610	R 2.621
May	.168	.645	.732	1.547	.005	.137	(s)	.143	1.690	.281	.655	2.627
June	.171	.595	.708	1.477	.005	.139	(s)	.145	1.622	.288	.657	2.567
July	.173	.660	.759	1.596	.005	.144	(s)	.150	1.746	.294	.663	2.703
August	.171	.661	.777	1.610	.005	.141	(s)	.146	1.756	.303	.674	2.733
September	.172	RF .645	R .769	R 1.589	R .004	R .134	(s)	R .139	R 1.728	R .288	R .578	R 2.595
October	.178	F .695	.819	1.696	.004	.139	(s)	.143	1.839	F .291	.616	2.745
10-Month Total	1.731	E 6.759	7.726	16.258	.046	1.373	.004	1.423	17.680	E 2.829	6.199	26.708
2002 10-Month Total	1.712	7.037	7.767	16.563	.029	1.422	.004	1.455	18.018	2.781	6.238	27.038
2001 10-Month Total	1.885	7.210	7.680	16.800	.027	1.323	.004	1.354	18.154	2.767	6.188	27.109

a Includes supplemental gaseous fuels.
b Includes coal coke net imports, which are not separately displayed. See Table 1.4.
c Conventional hydroelectric power.
d Wood, black liquor, and other wood waste.
e Municipal solid waste, landfill gas, sludge waste, tires, agricultural byproducts, and other biomass.
f Geothermal heat pump and direct use energy.
g Electricity retail sales to ultimate customers reported by electric utilities and

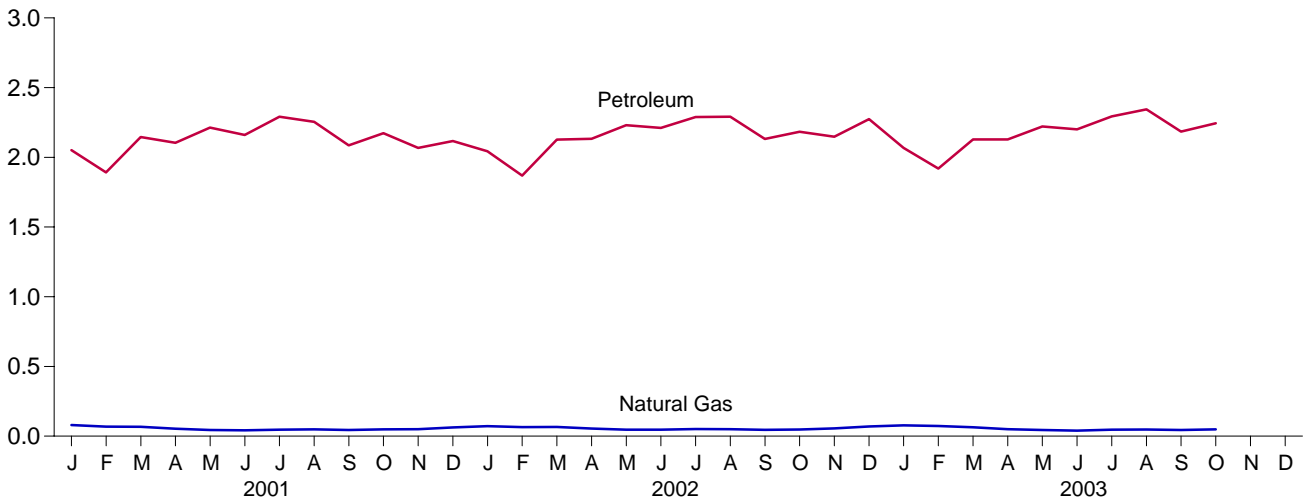
other energy service providers.
h See Note 12 at end of section.
R=Revised. E=Estimate. NA=Not available. F=Forecast. (s)=Less than 0.5 trillion Btu.
Notes: • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.
Web Page: <http://www.eia.doe.gov/emeu/mer/consump.html>.
Additional Notes and Sources: See end of section.

Figure 2.5 Transportation Sector Energy Consumption
(Quadrillion Btu)

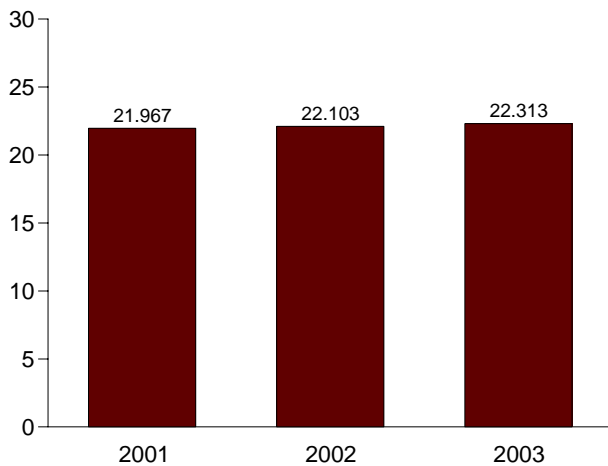
By Major Sources, 1973-2002



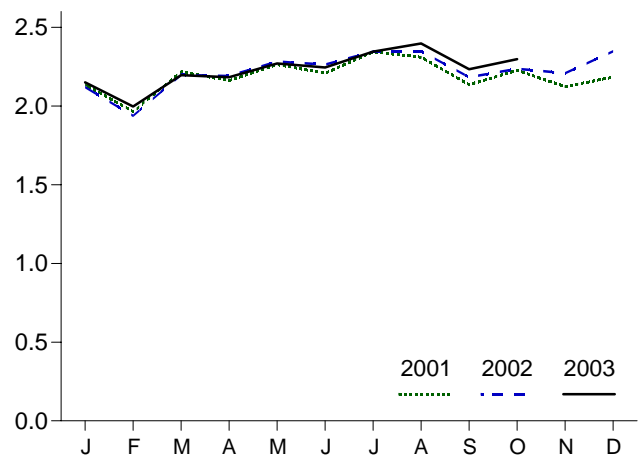
By Major Sources, Monthly



Total, January-October



Total, Monthly



Note: Because vertical scales differ, graphs should not be compared.
Web Page: <http://www.eia.doe.gov/emeu/mer/consump.html>
Source: Table 2.5.

Table 2.5 Transportation Sector Energy Consumption
(Quadrillion Btu)

	Primary Consumption						Electricity Retail Sales ^c	Electrical System Energy Losses ^d	Total ^b
	Fossil Fuels				Renewable Energy	Total Primary ^b			
	Coal	Natural Gas ^a	Petroleum	Total	Alcohol Fuels ^d				
1973 Total	0.003	0.743	17.831	18.576	NA	18.576	0.011	0.025	18.612
1974 Total002	.685	17.399	18.086	NA	18.086	.010	.024	18.119
1975 Total001	.595	17.614	18.209	NA	18.209	.010	.024	18.244
1976 Total	(s)	.559	18.506	19.065	NA	19.065	.010	.024	19.099
1977 Total	(s)	.543	19.241	19.784	NA	19.784	.010	.025	19.820
1978 Total	(e)	.539	20.041	20.580	NA	20.580	.010	.024	20.615
1979 Total	(e)	.612	19.825	20.436	NA	20.436	.010	.024	20.471
1980 Total	(e)	.650	19.008	19.658	NA	19.658	.011	.027	19.696
1981 Total	(e)	.658	18.811	19.469	.007	19.469	.011	.026	19.506
1982 Total	(e)	.612	18.420	19.032	.019	19.032	.011	.026	19.069
1983 Total	(e)	.505	18.593	19.098	.035	19.098	.013	.030	19.141
1984 Total	(e)	.545	19.216	19.761	.043	19.761	.014	.033	19.808
1985 Total	(e)	.519	19.504	20.023	.052	20.023	.014	.033	20.070
1986 Total	(e)	.499	20.269	20.768	.060	20.768	.015	.034	20.817
1987 Total	(e)	.535	20.870	21.405	.069	21.405	.016	.035	21.455
1988 Total	(e)	.632	21.629	22.261	.070	22.261	.016	.035	22.312
1989 Total	(e)	.649	21.848	22.497	.071	22.497	.016	.038	22.551
1990 Total	(e)	.680	21.792	22.472	.063	22.472	.016	.037	22.526
1991 Total	(e)	.620	21.448	22.069	.073	22.069	.016	.037	22.122
1992 Total	(e)	.608	21.798	22.406	.083	22.406	.016	.037	22.459
1993 Total	(e)	.645	22.185	22.830	.097	22.830	.016	.037	22.883
1994 Total	(e)	.709	22.739	23.448	.109	23.448	.017	.038	23.503
1995 Total	(e)	.724	23.181	23.905	.117	23.905	.017	.039	23.960
1996 Total	(e)	.737	23.719	24.456	.084	24.456	.017	.038	24.511
1997 Total	(e)	.780	23.973	24.753	.106	24.753	.017	.038	24.808
1998 Total	(e)	.666	24.635	25.301	.117	25.301	.017	.038	25.357
1999 Total	(e)	.675	25.375	26.050	.122	26.050	.017	.040	26.108
2000 Total	(e)	.672	25.973	26.645	.139	26.645	.018	.042	26.705
2001 January	(e)	.080	2.051	2.131	.015	2.131	.002	.003	2.136
February	(e)	.069	1.892	1.960	.012	1.960	.001	.003	1.965
March	(e)	.067	2.146	2.212	.012	2.212	.001	.003	2.217
April	(e)	.053	2.104	2.157	.011	2.157	.001	.003	2.162
May	(e)	.045	2.214	2.259	.011	2.259	.001	.004	2.264
June	(e)	.042	2.161	2.203	.012	2.203	.002	.004	2.209
July	(e)	.047	2.292	2.339	.011	2.339	.002	.004	2.345
August	(e)	.049	2.255	2.304	.010	2.304	.002	.004	2.310
September	(e)	.044	2.085	2.129	.012	2.129	.002	.004	2.135
October	(e)	.049	2.173	2.222	.016	2.222	.002	.004	2.227
November	(e)	.050	2.067	2.118	.013	2.118	.001	.003	2.122
December	(e)	.063	2.116	2.179	.013	2.179	.001	.003	2.184
Total	(e)	.657	25.556	26.213	.147	26.213	.019	.042	26.274
2002 January	(e)	.072	2.043	2.115	.013	2.115	.001	.003	2.120
February	(e)	.065	1.869	1.934	.012	1.934	.001	.003	1.938
March	(e)	.066	2.127	2.193	.012	2.193	.001	.003	2.197
April	(e)	.054	2.132	2.187	.012	2.187	.001	.003	2.191
May	(e)	.047	2.231	2.278	.014	2.278	.001	.003	2.282
June	(e)	.046	2.212	2.258	.012	2.258	R .002	R .004	2.263
July	(e)	.051	2.289	2.340	.015	2.340	.002	.004	2.346
August	(e)	.050	2.292	2.342	.014	2.342	.002	.004	R 2.348
September	(e)	.045	2.132	2.177	.015	2.177	.002	R .004	2.182
October	(e)	.048	2.184	2.232	.017	2.232	.002	.003	2.237
November	(e)	.056	2.148	2.203	.020	2.203	.001	.003	2.208
December	(e)	.069	2.274	2.343	.019	2.343	.001	.003	2.348
Total	(e)	.669	25.933	26.602	.174	26.602	R .018	R .040	R 26.659
2003 January	(e)	.077	2.068	2.145	.017	2.145	.001	.003	2.150
February	(e)	.072	1.920	1.992	.020	1.992	.001	.003	1.996
March	(e)	.064	2.128	2.192	.017	2.192	.001	.003	2.196
April	(e)	.050	R 2.128	R 2.179	.020	R 2.179	.001	.003	R 2.183
May	(e)	.044	2.221	2.265	.019	2.265	.001	.003	2.270
June	(e)	.039	2.201	2.240	.019	2.240	.002	.004	2.245
July	(e)	.046	2.293	2.339	.020	2.339	.002	.004	2.345
August	(e)	.047	2.344	2.392	.021	2.392	.002	.004	2.397
September	(e)	RE .045	R 2.184	R 2.229	.018	R 2.229	.002	.003	R 2.233
October	(e)	E .049	2.244	2.293	.021	2.293	F .001	.003	2.297
10-Month Total ...	(e)	E .534	21.732	22.265	.190	22.265	E .015	.033	22.313
2002 10-Month Total ...	(e)	.545	21.511	22.056	.136	22.056	.015	.033	22.103
2001 10-Month Total ...	(e)	.544	21.372	21.916	.122	21.916	.016	.035	21.967

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

^b Alcohol (ethanol blended into motor gasoline) is included in both "Petroleum" and "Alcohol Fuels," but is counted only once in both total primary consumption and total consumption.

^c Electricity retail sales to ultimate customers reported by electric utilities and other energy service providers.

^d See Note 12 at end of Section.

^e Since 1978, the small amounts of coal consumed for transportation are reported as industrial sector consumption.

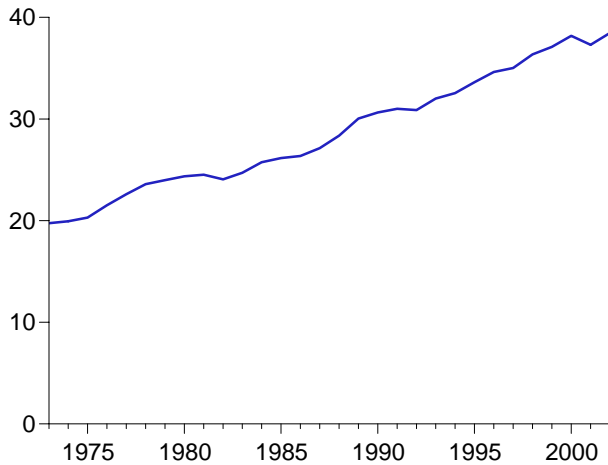
R=Revised. E=Estimate. NA=Not available. F=Forecast. (s)=Less than 0.5 trillion Btu.

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

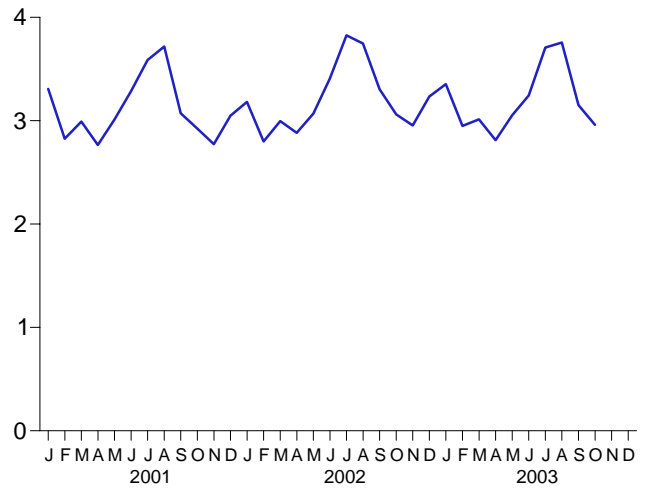
Web Page: <http://www.eia.doe.gov/emeu/mer/consump.html>.
Additional Notes and Sources: See end of section.

Figure 2.6 Electric Power Sector Energy Consumption
(Quadrillion Btu)

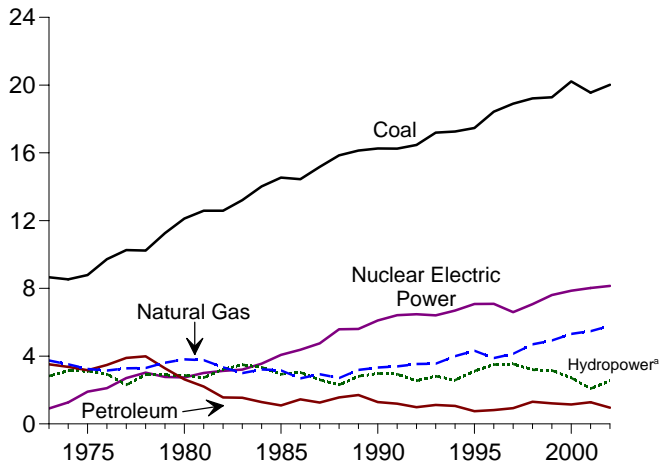
Total, 1973-2002



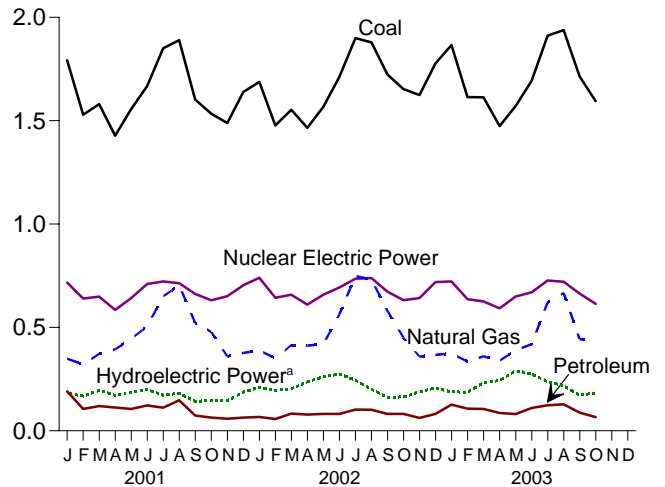
Total, Monthly



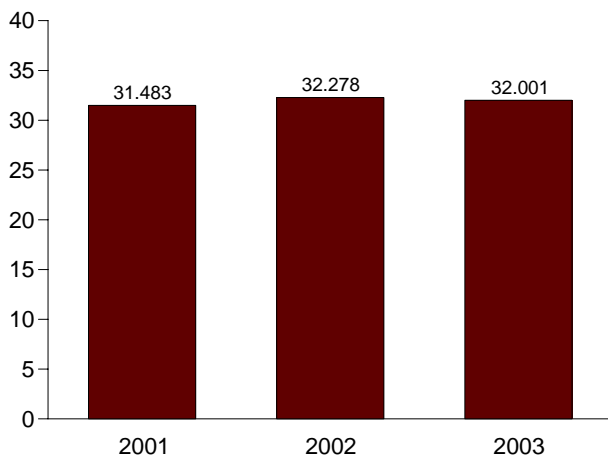
By Major Sources, 1973-2002



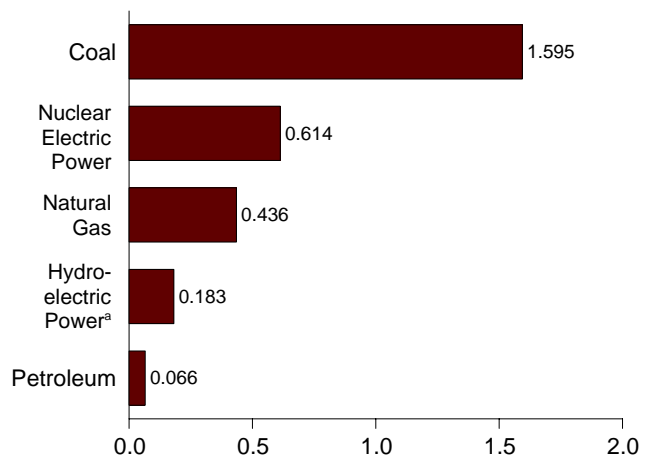
By Major Sources, Monthly



Total, January-October



By Major Sources, October 2003



^aConventional and pumped storage hydroelectric power.
Note: Because vertical scales differ, graphs should not be compared.

Web Page: <http://www.eia.doe.gov/emeu/mer/consump.html>.
Source: Table 2.6.

Energy Consumption by Sector

Most of the data in this section of the *Monthly Energy Review (MER)* is developed from a group of energy-related surveys, typically called "supply surveys," conducted by the Energy Information Administration (EIA). Supply surveys are 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 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 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.

Note 1. Energy Consumption:

Primary Consumption: Consumption in the five energy-use sectors (residential, commercial, industrial, transportation, and electric power) consists of fossil fuels (coal, natural gas, and petroleum), some secondary energy derived from fossil fuels (supplemental gaseous fuels and coal coke net imports), nuclear electric power, pumped-storage hydroelectric power, renewable energy, and net imports of electricity. Renewable energy consumption is the end-use consumption of wood, waste, alcohol fuels, geothermal heat pump and direct use energy, solar thermal direct use and photovoltaic energy and net electricity generation from conventional hydroelectric power, wood, waste, geothermal, solar, and wind.

Total Consumption: In addition to primary consumption in the four end-use sectors (residential, commercial, industrial, and transportation), total consumption also includes retail sales of electricity and electrical system energy losses (see Note 12).

Note 2. Energy-Use Sectors: The five major economic sectors—residential, commercial, industrial, transportation, and electric power—are called energy-use sectors in this report. The first four sectors comprise the end-use sectors, that is, the point of final consumption of the energy. Energy

consumption is assigned to the five energy-use sectors, as closely as possible, by the following definitions:

Residential Sector—An energy-consuming sector that consists of living quarters for private households. Common uses of energy associated with this sector include space heating, water heating, air conditioning, lighting, refrigeration, cooking, and running a variety of other appliances. The residential sector excludes institutional living quarters. For further explanation see:

<http://www.eia.doe.gov/neic/datadefinitions/Guideforwebres.htm>.

Commercial Sector—An energy-consuming sector that consists of service-providing facilities and equipment of: businesses; Federal, State, and local governments; and other private and public organizations, such as religious, social, or fraternal groups. The commercial sector includes institutional living quarters. Common uses of energy associated with this sector include space heating, water heating, air conditioning, lighting, refrigeration, cooking, and running a wide variety of other equipment. *Note:* This sector includes generators that produce electricity and/or useful thermal output primarily to support the activities of the above-mentioned commercial establishments.

Industrial Sector—An energy-consuming sector that consists of all facilities and equipment used for producing, processing, or assembling goods. The industrial sector encompasses the following types of activity: manufacturing (NAICS (North American Industry Classification System) codes 31-33); agriculture, forestry, fishing and hunting (NAICS code 11); mining, including oil and gas extraction (NAICS code 21); natural gas distribution (NAICS code 2212); and construction (NAICS code 23). Overall energy use in this sector is largely for process heat and cooling and powering machinery, with lesser amounts used for facility heating, air conditioning, and lighting. Fossil fuels are also used as raw material inputs to manufactured products. *Note:* This sector includes generators that produce electricity and/or useful thermal output primarily to support the above-mentioned industrial activities.

Transportation Sector—An energy-consuming sector that consists of all vehicles whose primary purpose is transporting people and/or goods from one physical location to another. Included are automobiles; trucks; buses; motorcycles; trains, subways, and other rail vehicles; aircraft; and ships, barges, and other waterborne vehicles. Vehicles whose primary purpose is not transportation (e.g., construction cranes and bulldozers, farming vehicles, and warehouse tractors and forklifts) are classified in the sector of their primary use. *Note:* Various EIA programs differ in sectoral coverage. For further information see:

<http://www.eia.doe.gov/neic/datadefinitions/Guideforwebtrans.htm>.

Electric Power Sector—An energy-consuming sector that consists of electricity-only and combined-heat-and-power (CHP) plants whose primary business is to sell electricity, or

electricity and heat, to the public—i.e., North American Industry Classification System 22 plants.

Although the energy-use allocations are made according to these aggregations as closely as possible, some data are collected by using different classifications. For example, electric power facilities may classify commercial and industrial users by the quantity of electricity purchased rather than by the business activity of the purchaser. Natural gas used in agriculture, forestry, and fisheries was collected and reported in the commercial sector through 1995. Beginning with 1996 data, deliveries of natural gas for agriculture, forestry, fishing, and hunting are reported in the industrial sector instead. 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.

Note 3. Conversion Factors: See Appendix A.

Note 4. Coal: See Tables 6.2 and A5.

Note 5. Coal Coke Net Imports: Net imports means imports minus exports, and a minus sign indicates that exports are greater than imports. Coal coke net imports are included in the industrial sector.

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*.

Note 6. Natural Gas: See Tables 4.4 and A4. For Section 2 calculations, lease and plant fuel consumption are included in the industrial sector, and pipeline fuel use of natural gas is included in the transportation sector. For 1973-1979, annual values for residential and commercial natural gas consumption are allocated to the months in proportion to the monthly sales data from the American Gas Association, "Monthly Gas Utility Statistical Report."

Note 7. Petroleum: Petroleum consumption in this section of the *Monthly Energy Review (MER)* is the series called "petroleum product supplied" from Section 3.

The sources for petroleum product supplied by product are:

1973-1975: DOI, BOM, *Mineral Industry Surveys*, "Petroleum Statement, Annual."

1976-1980: EIA, *Energy Data Reports*, "Petroleum Statement, Annual."

1981-2001: EIA, *Petroleum Supply Annual*.

2002 forward: EIA, *Petroleum Supply Monthly*.

Energy-use allocation procedures by individual product are as follows:

Aviation Gasoline—All consumption of aviation gasoline is assigned to the transportation sector.

Asphalt—All consumption of asphalt is assigned to the industrial sector.

Distillate Fuel—Distillate fuel consumption is assigned to the sectors as follows:

Distillate Fuel Consumed by the Electric Power Sector, All Time 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 by the electric power sector. See Table 7.3e.

Distillate Fuel Consumed by End-Use Sectors, Annually Through 2000—The aggregate end-use amount is total distillate fuel supplied minus the amount consumed for electric power. The end-use total consumed annually is allocated into the individual end-use sectors (residential, commercial, industrial, and transportation) in proportion to each sector's share of "adjusted sales" as reported in EIA's *Fuel Oil and Kerosene Sales (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 to equal EIA distillate fuel product supplied.

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.

Distillate Fuel Consumed by End-Use Sectors, Monthly Through 2000—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 forward, 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 calculated as the difference between the sum of the estimates for residential, commercial, transportation, and electric power sectors and total distillate fuel consumption.

Distillate Fuel Consumed by End-Use Sectors, 2001 Forward—Each month's end-use consumption total is disaggregated into the individual sectors in proportion to the share that each sector held of the total in the same month in 2000. Annual values are the sum of the monthly values.

Jet Fuel—Through 1982, small amounts of kerosene-type jet fuel were consumed by the electric power sector. Kerosene-type jet fuel deliveries to the electric power sector 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—Kerosene product supplied is allocated into the individual end-use sectors (residential, commercial, and industrial) in proportion to each sector's share of "sales" as reported in EIA's *Fuel Oil and Kerosene Sales (Sales)* report series (DOE/EIA-0535), which is based primarily on data collected by Form EIA-821, previously Form EIA-172.

Since 1979, the residential sector sales total is directly from the *Sales* reports. Prior to 1979, each year's sales category called "heating" is split into residential, commercial, and industrial in proportion to the 1979 shares.

Since 1979, the commercial sector sales total is directly from the *Sales* reports. Prior to 1979, each year's sales category called "heating" is split into residential, commercial, and industrial in proportion to the 1979 shares.

Since 1979, the industrial sector sales total is the sum of the adjusted sales for industrial, farm, and all other uses. 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 used by each sector are applied to each month's total LPG consumption to create monthly sector consumption estimates. The annual sector shares are calculated as described below.

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 20 percent (in 2001) 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 materials 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.

Sources of the annual sales data for creating annual energy 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-forward: 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. EIA adjusts the data

to remove quantities of pentanes plus and to estimate withheld values.

Lubricants—The consumption of lubricants 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—The total monthly consumption of motor gasoline is allocated to the 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—A portion of petroleum coke is consumed by electric utilities, as reported on Form EIA-759, "Monthly Power Plant Report" (formerly Form FPC-4). The remaining petroleum coke is assigned to the industrial sector.

Residual Fuel—Residual fuel consumption is assigned to the sectors as follows:

Residual Fuel Consumed by the Electric Power Sector, All Time 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 by the electric power sector. Source: Table 7.3e

Residual Fuel Consumed by End-Use Sectors, Annually Through 2000—The aggregate end-use amount is total residual fuel supplied minus the amount consumed for electric power. The end-use total consumed annually is allocated into the individual end-use sectors (commercial, industrial, and transportation) in proportion to each sector's share of "adjusted sales" as reported in EIA's *Fuel Oil and Kerosene Sales (Sales)* report series (DOE/EIA-535), which is based primarily on data collected by Form EIA-821, previously Form EIA-172). "Adjusted sales" are sales that have been adjusted to equal EIA residual fuel product supplied.

Following are notes on the individual sector groupings:

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.

Residual Fuel Consumed by End-Use Sectors, Monthly Through 2000—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 1983-1996, 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 calculated as the difference between the sum of the estimates for commercial, transportation, and electric power sectors and total residual fuel consumption.

Residual Fuel Consumption by End-Use Sectors, 2001 Forward—Each month's end-use consumption total is disaggregated into the individual sectors in proportion to the share that each sector held of the total in the same month in 2000. Annual values are the sum of the monthly values.

Road Oil—All consumption of road oil is assigned to the industrial sector.

All Other Petroleum Products—Consumption of all remaining petroleum products is assigned to the industrial sector.

Note 8. Nuclear Electric Power: See Tables 8.1 and A6. Nuclear electric power is included in the electric power sector.

Note 9. Hydroelectric Pumped Storage: See Tables 7.2a and A6. Pumped-storage hydroelectric power is included in the electric power sector.

Note 10. Renewable Energy: See Tables 10.2a-10.2c. End-use consumption of wood, waste, alcohol fuels, geothermal heat pump and direct use energy, and solar thermal direct use and photovoltaic energy is included in the end-use sectors. Included in the electric power sector are: net electricity generation from conventional hydroelectric power, wood, waste, geothermal, solar, and wind.

Note 11. Electricity: End-use consumption of electricity is based on retail sales of electricity in Table 7.5. "Other," which is primarily for use in government buildings, is added to the commercial sector, except for approximately 5 percent used by railroads and railways and attributed to the transportation sector. Kilowatthours are converted to Btu at the rate of 3,412 Btu per kilowatthour.

Note 12. Electrical System Energy Losses: Electrical system energy losses are calculated as the difference between total primary consumption by the electric power sector-see Table 2.6-and the total energy content of the retail sales of electricity-see Tables 7.5 and A6. Most of these 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.

Section 3. Petroleum

Total petroleum imports¹ averaged 11.7 million barrels per day in December 2003, 1 percent lower than the previous month's rate but 5 percent higher than the December 2002 rate.

In December 2003, 20.1 million barrels per day of petroleum products were supplied for domestic use, 1 percent higher than the December 2002 rate. Motor gasoline accounted for 44 percent of the total; distillate fuel oil, 19 percent; and kerosene-type jet fuel, 8 percent.

Motor gasoline product supplied during December 2003 averaged 8.87 million barrels per day, 1 percent lower than the previous month's rate and slightly lower than the December 2002 rate. Total motor gasoline stocks were 206 million barrels at the end of December 2003, 3 million barrels above the stock level in the previous month but 3 million barrels below the level 1 year earlier.

Distillate fuel oil product supplied during December 2003 averaged 3.9 million barrels per day, 3 percent higher than the previous month's rate but 1 percent lower than the December 2002 rate. Distillate fuel oil ending stocks for December 2003 were 135 million barrels, 2 million barrels below the stock level in the previous month but 1 million barrels above the level 1 year earlier.

Kerosene-type jet fuel product supplied in December 2003 averaged 1.7 million barrels per day, 3 percent higher than the previous month's rate but 3 percent lower than the December 2002 rate. Kerosene-type jet fuel stocks measured 38 million barrels at the end of December 2003, the same as the stock level in the previous month but 1 million barrels below 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 September 2003.

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

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

	Field Production			Stock Change ^a		Petroleum Products Supplied	Stocks ^b
	Total Domestic ^c	Crude Oil	Natural Gas Plant Liquids	Crude Oil ^d	Petroleum Products		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	e1,074
1975 Average	10,045	8,375	1,633	e17	e15	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	e1,392
1981 Average	10,230	8,572	1,609	e290	e-130	16,058	1,484
1982 Average	10,252	8,649	1,550	136	-283	15,296	e1,430
1983 Average	10,299	8,688	1,559	e214	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	e1,592
1993 Average	9,836	6,847	1,736	81	e70	17,237	e1,647
1994 Average	8,645	6,662	1,727	18	-2	17,718	1,653
1995 Average	8,626	6,560	1,762	-93	-153	17,725	1,563
1996 Average	8,607	6,465	1,830	-124	-28	18,309	1,507
1997 Average	8,611	6,452	1,817	51	93	18,620	1,560
1998 Average	8,392	6,252	1,759	74	165	18,917	1,647
1999 Average	8,107	5,881	1,850	-118	-304	19,519	1,493
2000 Average	8,110	5,822	1,911	-70	(s)	19,701	1,468
2001 January	7,528	5,799	1,398	317	38	20,092	1,479
February	7,891	5,780	1,732	-424	223	19,689	1,473
March	8,127	5,880	1,833	861	-501	19,876	1,484
April	8,062	5,863	1,831	736	513	19,729	1,522
May	8,146	5,829	1,912	-42	1,130	19,501	1,555
June	8,062	5,766	1,908	-671	929	19,561	1,563
July	8,066	5,749	1,899	164	7	19,919	1,568
August	8,062	5,725	1,955	-160	-488	20,153	1,548
September	8,128	5,709	2,034	79	944	19,016	1,579
October	8,164	5,746	2,025	142	-205	19,824	1,577
November	8,274	5,881	2,001	36	323	19,396	1,588
December	8,131	5,887	1,889	87	-133	19,003	1,586
Average	8,054	5,801	1,868	99	227	19,649	1,586
2002 January	8,068	5,848	1,827	409	-270	19,454	1,591
February	8,126	5,871	1,900	443	-951	19,444	1,576
March	8,139	5,883	1,901	248	-364	19,676	1,573
April	8,215	5,859	1,925	-120	641	19,552	1,588
May	8,317	5,924	1,936	222	504	19,728	1,611
June	8,206	5,915	1,870	-143	316	19,875	1,616
July	8,022	5,770	1,846	-362	190	20,076	1,611
August	8,205	5,811	1,937	-139	-328	20,221	1,596
September	7,748	5,411	1,898	-687	-56	19,461	1,574
October	7,645	5,363	1,875	749	-782	19,678	1,573
November	7,949	5,597	1,891	96	85	19,991	1,578
December	7,887	5,699	1,760	-234	-751	19,943	1,548
Average	8,043	5,746	1,880	40	-145	19,761	1,548
2003 January	E 8,030	E 5,842	1,756	-148	-1,348	20,042	1,504
February	E 8,144	E 5,915	1,811	-91	-1,501	20,396	1,460
March	E 8,037	E 5,890	1,730	325	99	19,682	1,473
April	E 7,900	E 5,813	1,704	333	420	19,770	1,495
May	E 7,795	E 5,783	1,531	-97	1,228	19,277	1,530
June	E 7,724	E 5,746	1,577	166	771	19,767	1,558
July	E 7,749	E 5,662	1,650	127	146	20,175	1,567
August	E 7,735	E 5,642	1,709	11	45	20,665	1,569
September	E 7,931	E 5,657	1,761	429	363	20,045	1,592
October	E 7,862	E 5,642	1,820	509	-135	20,049	1,604
November	RE 7,853	RE 5,637	R 1,841	R -356	R 167	R 19,952	R 1,598
December	E 7,912	PE 5,638	E 1,761	E -262	E -254	E 20,054	E 1,569
Average	E 7,888	PE 5,738	E 1,720	E 79	E 8	E 19,987	E 1,569

^a A negative number indicates a decrease in stocks and a positive number indicates an increase. Distillate stocks in the "Northeast Heating Oil Reserve" are not included.

^b Stocks are at end of period. Distillate stocks in the "Northeast Heating Oil Reserve" are not included.

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

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

Web Page: <http://www.eia.doe.gov/emeu/mer/petro.html>.

Sources: • 1973-1991: Energy Information Administration (EIA), *Petroleum Supply Annual 1992, Volume 1*, May 1993, Table S1. • 1992 forward: EIA, *Petroleum Supply Monthly*, January 2004, Table S1.

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

	Imports			Exports			Net Imports ^b
	Total	Crude Oil ^a	Petroleum Products	Total	Crude Oil	Petroleum Products	
	Thousand Barrels per Day						
1973 Average	6,256	3,244	3,012	231	2	229	6,025
1974 Average	6,112	3,477	2,635	221	3	218	5,892
1975 Average	6,056	4,105	1,951	209	6	204	5,846
1976 Average	7,313	5,287	2,026	223	8	215	7,090
1977 Average	8,807	6,615	2,193	243	50	193	8,565
1978 Average	8,363	6,356	2,008	362	158	204	8,002
1979 Average	8,456	6,519	1,937	^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 Average	8,835	7,230	1,605	949	95	855	7,886
1996 Average	9,478	7,508	1,971	981	110	871	8,498
1997 Average	10,162	8,225	1,936	1,003	108	896	9,158
1998 Average	10,708	8,706	2,002	945	110	835	9,764
1999 Average	10,852	8,731	2,122	940	118	822	9,912
2000 Average	11,459	9,071	2,389	1,040	50	990	10,419
2001 January	12,555	8,933	3,623	954	18	936	11,601
February	11,643	8,609	3,035	1,004	24	980	10,639
March	12,132	9,603	2,530	938	37	901	11,194
April	12,653	10,111	2,542	942	5	937	11,711
May	12,529	9,885	2,644	1,069	64	1,005	11,461
June	11,732	9,105	2,627	976	15	960	10,756
July	11,760	9,552	2,208	879	11	868	10,881
August	11,622	9,383	2,239	1,048	28	1,020	10,573
September	11,818	9,339	2,478	825	8	817	10,993
October	11,379	9,211	2,168	946	11	935	10,432
November	11,628	9,320	2,309	960	9	951	10,669
December	10,994	8,839	2,154	1,109	12	1,097	9,885
Average	11,871	9,328	2,543	971	20	951	10,900
2002 January	11,088	8,709	2,380	861	11	850	10,228
February	10,904	8,753	2,151	1,175	4	1,170	9,729
March	11,198	8,799	2,399	853	8	845	10,345
April	11,765	9,301	2,464	890	8	882	10,876
May	11,769	9,323	2,446	910	7	903	10,859
June	11,753	9,324	2,429	880	5	874	10,873
July	11,624	9,184	2,440	839	33	806	10,785
August	11,890	9,544	2,346	1,138	9	1,129	10,752
September	11,075	8,797	2,278	1,015	7	1,008	10,059
October	11,893	9,532	2,361	962	4	958	10,931
November	12,268	9,654	2,613	1,026	10	1,016	11,242
December	11,100	8,741	2,359	1,272	2	1,270	9,828
Average	11,530	9,140	2,390	984	9	975	10,546
2003 January	11,008	8,547	2,461	1,212	10	1,202	9,796
February	10,764	8,303	2,460	1,067	5	1,062	9,697
March	11,857	9,055	2,802	1,051	10	1,042	10,806
April	12,446	9,807	2,639	1,053	12	1,041	11,394
May	12,814	10,078	2,736	1,097	15	1,082	11,717
June	12,941	9,951	2,990	1,065	45	1,020	11,875
July	12,788	10,059	2,729	976	7	969	11,812
August	12,904	10,137	2,767	836	4	833	12,068
September	13,042	10,412	2,630	960	3	956	12,082
October	12,526	10,159	2,368	970	14	956	11,556
November	^R 11,846	^R 9,479	^R 2,367	^R 933	^R 21	^R 911	^R 10,913
December	^E 11,688	^E 9,462	^E 2,226	^E 988	^E 10	^E 978	^E 10,700
Average	^E 12,227	^E 9,628	^E 2,598	^E 1,017	^E 13	^E 1,004	^E 11,210

^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. E=Estimate.

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

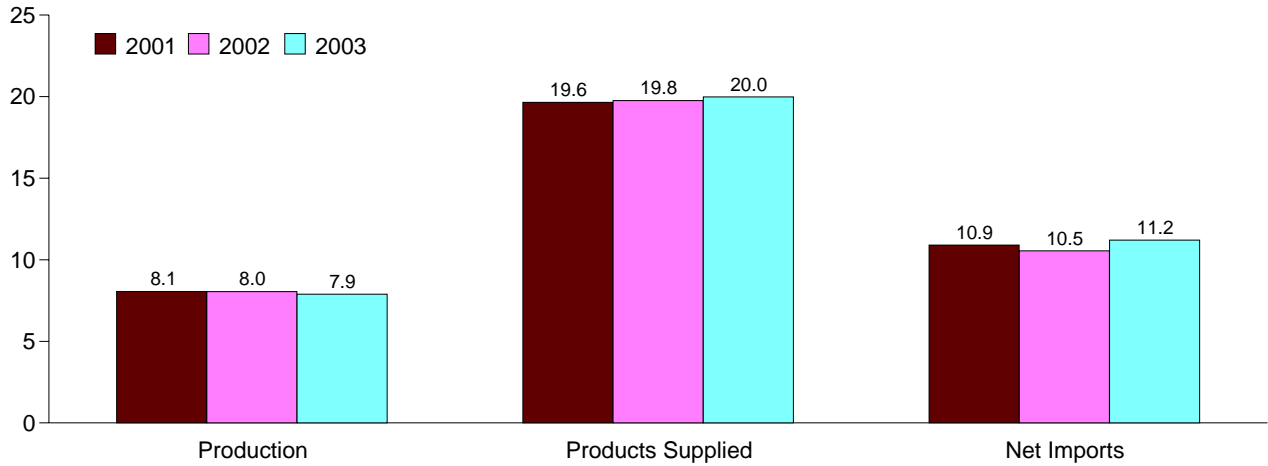
50 States and the District of Columbia.

Web Page: <http://www.eia.doe.gov/emeu/mer/petro.html>.

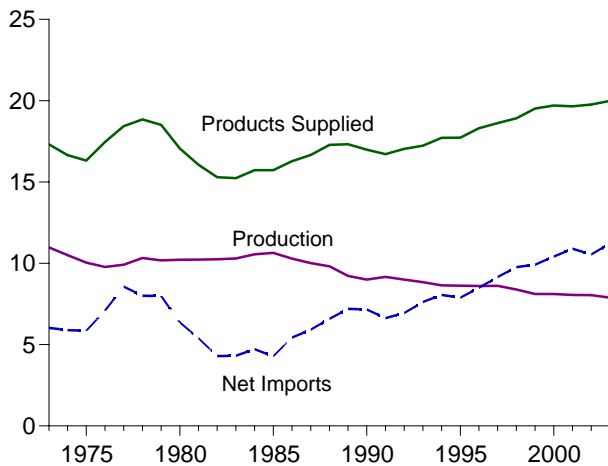
Sources: • 1973-1991: Energy Information Administration (EIA), *Petroleum Supply Annual 1992, Volume 1*, May 1993, Table S1. • 1992 forward: EIA, *Petroleum Supply Monthly*, January 2004, Table S1.

Figure 3.1a Petroleum Overview and Production
(Million Barrels per Day)

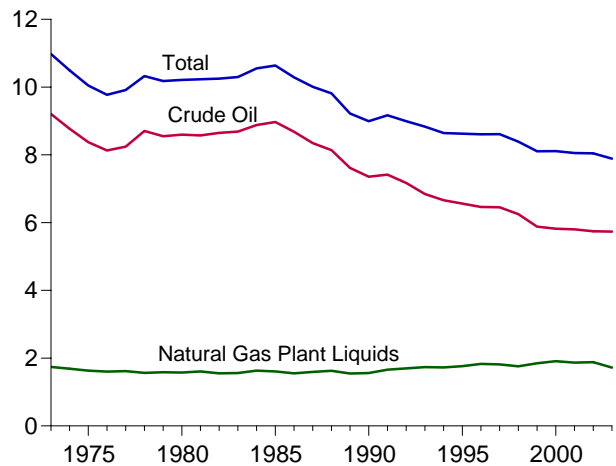
Overview, January-December



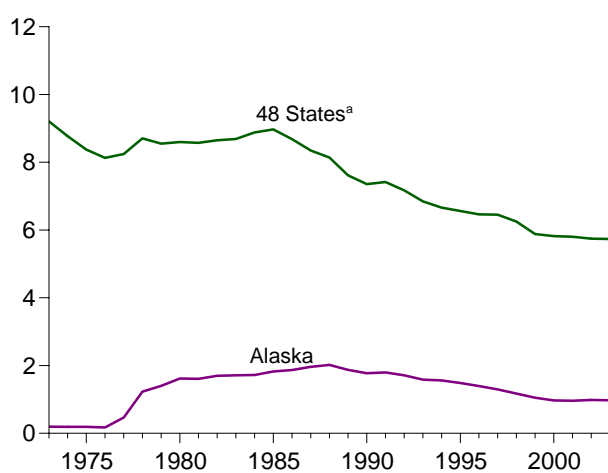
Overview, 1973-2003



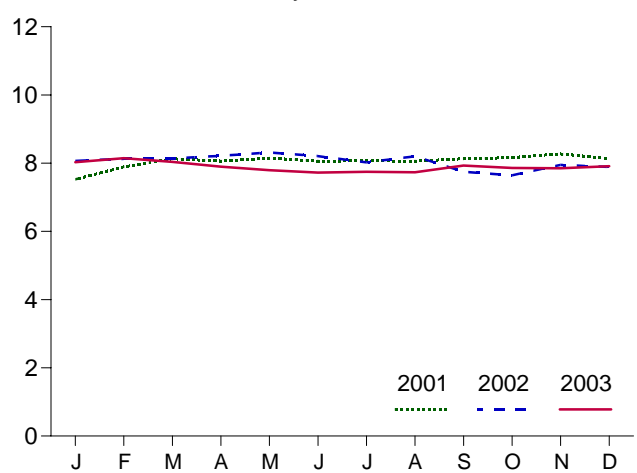
Production, 1973-2003



Crude Oil Production, 1973-2003



Total Production, Monthly

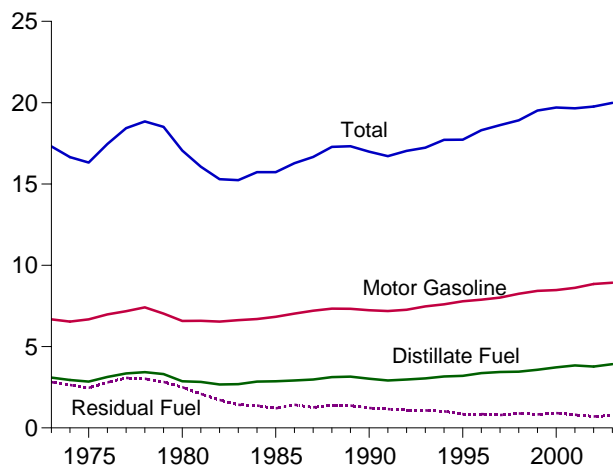


^aUnited States excluding Alaska and Hawaii.
Note: Because vertical scales differ, graphs should not be compared.

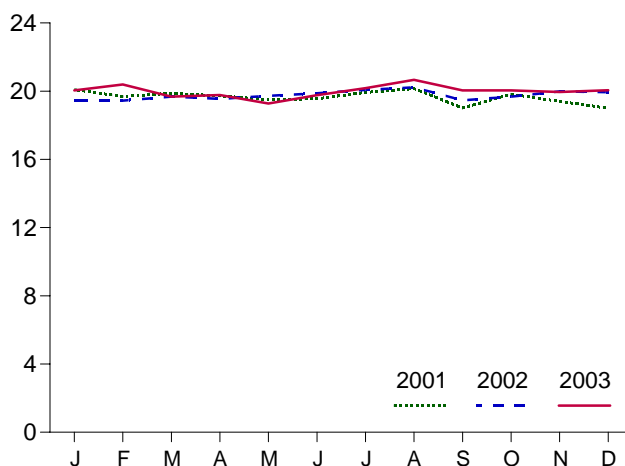
Web Page: <http://www.eia.doe.gov/emeu/mer/petro.html>.
Sources: Tables 3.1a, 3.1b, and 3.2a.

Figure 3.1b Petroleum Products Supplied, Imports, and Stocks
(Million Barrels per Day, Except as Noted)

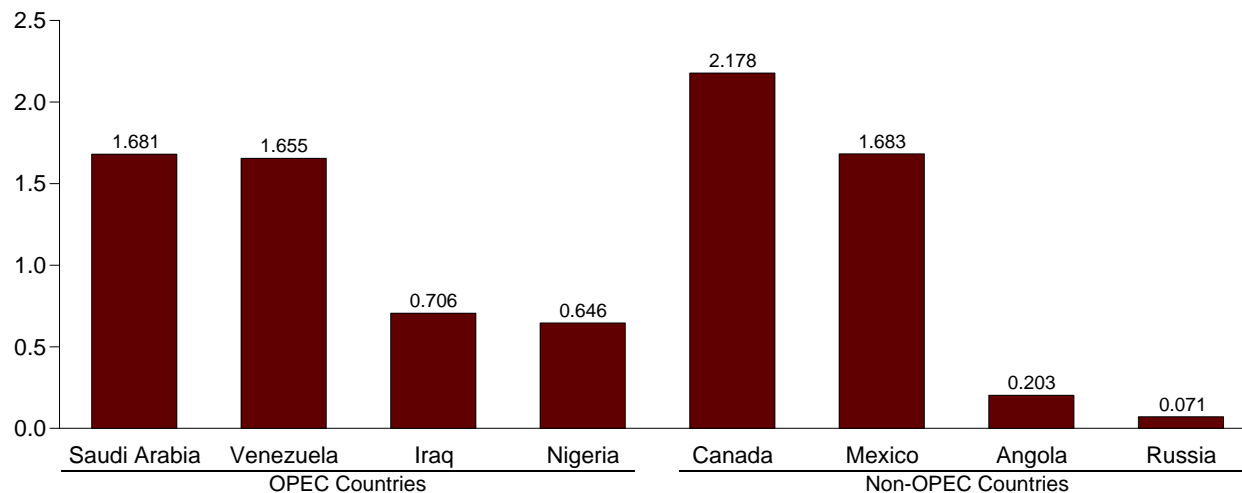
Products Supplied, 1973-2003



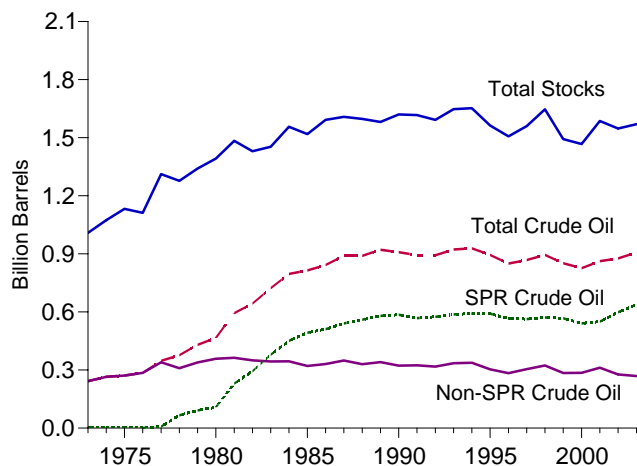
Products Supplied, Monthly



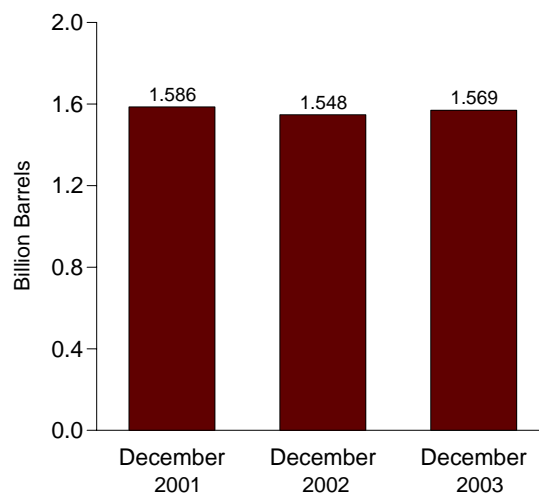
Imports from Selected Countries, November 2003



Stocks, End of Year, 1973-2003



Total Stocks, End of Month



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

Web Page: <http://www.eia.doe.gov/emeu/mer/petro.html>.

Sources: Tables 3.1a, 3.2b, 3.3a, 3.3b, 3.3d, 3.3e, 3.3f, 3.3g, 3.4, 3.5, and 3.6.

Table 3.2a Crude Oil Supply and Disposition: Supply

	Supply						Unaccounted-for Crude Oil ^b	Crude Oil Used Directly ^c
	Field Production		Imports					
	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 Average	6,560	1,484	7,230	0	7,230	193	-	
1996 Average	6,465	1,393	7,508	0	7,508	215	-	
1997 Average	6,452	1,296	8,225	0	8,225	145	-	
1998 Average	6,252	1,175	8,706	0	8,706	115	-	
1999 Average	5,881	1,050	8,731	8	8,722	191	-	
2000 Average	5,822	970	9,071	8	9,062	155	-	
2001 January	5,799	980	8,933	32	8,901	392	-	
February	5,780	977	8,609	0	8,609	25	-	
March	5,880	1,009	9,603	15	9,588	64	-	
April	5,863	986	10,111	0	10,111	304	-	
May	5,829	957	9,885	30	9,856	70	-	
June	5,766	935	9,105	0	9,105	123	-	
July	5,749	927	9,552	15	9,538	243	-	
August	5,725	928	9,383	0	9,383	19	-	
September	5,709	892	9,339	0	9,339	44	-	
October	5,746	895	9,211	0	9,211	198	-	
November	5,881	1,023	9,320	17	9,302	-155	-	
December	5,887	1,046	8,839	18	8,821	61	-	
Average	5,801	963	9,328	11	9,318	117	-	
2002 January	5,848	1,036	8,709	33	8,675	351	-	
February	5,871	1,031	8,753	59	8,694	129	-	
March	5,883	1,036	8,799	0	8,799	99	-	
April	5,859	1,009	9,301	0	9,301	53	-	
May	5,924	1,002	9,323	16	9,307	283	-	
June	5,915	1,019	9,324	17	9,307	21	-	
July	5,770	931	9,184	0	9,184	146	-	
August	5,811	965	9,544	0	9,544	-148	-	
September	5,411	886	8,797	0	8,797	-27	-	
October	5,363	983	9,532	0	9,532	161	-	
November	5,597	908	9,654	34	9,620	10	-	
December	5,699	1,010	8,741	34	8,707	228	-	
Average	5,746	984	9,140	16	9,124	110	-	
2003 January	E 5,842	E 984	8,547	0	8,547	-190	-	
February	E 5,915	E 1,015	8,303	0	8,303	78	-	
March	E 5,890	E 1,022	9,055	0	9,055	318	-	
April	E 5,813	E 971	9,807	0	9,807	300	-	
May	E 5,783	E 990	10,078	0	10,078	-25	-	
June	E 5,746	E 991	9,951	0	9,951	133	-	
July	E 5,662	E 927	10,059	0	10,059	-39	-	
August	E 5,642	E 945	10,137	0	10,137	-79	-	
September	E 5,657	E 964	10,412	0	10,412	-192	-	
October	E 5,642	E 967	10,159	0	10,159	64	-	
November	RE 5,637	RE 963	R 9,479	0	R 9,479	R 4	-	
December	PE 5,638	PE 974	E 9,462	E 0	E 9,462	E -34	-	
Average	PE 5,738	PE 976	E 9,628	E 0	E 9,628	E 27	-	

^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, - =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.

Web Page: <http://www.eia.doe.gov/emeu/mer/petro.html>.

Sources: • 1973-1991: Energy Information Administration (EIA), *Petroleum Supply Annual 1992, Volume 1*, May 1993, Table S2. • 1992 forward: EIA, *Petroleum Supply Monthly*, January 2004, Table S2.

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

	Disposition						Stocks ^a		
	Crude Losses	Stock Change ^b		Refinery Inputs	Exports	Product Supplied ^d	Total	SPR ^c	Other Primary
		SPR ^c	Other						
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 Average	(s)	(s)	-93	13,973	95	7	895	592	303
1996 Average	(s)	-71	-53	14,195	110	6	850	566	284
1997 Average	0	-7	57	14,662	108	2	868	563	305
1998 Average	(s)	22	52	14,889	110	0	895	571	324
1999 Average	(s)	-11	-107	14,804	118	0	852	567	284
2000 Average	0	-73	3	15,067	50	0	826	541	286
2001 January	0	32	285	14,789	18	0	836	542	294
February	0	(s)	-424	14,813	24	0	824	542	282
March	0	20	841	14,649	37	0	851	542	309
April	0	2	734	15,536	5	0	873	542	331
May	0	30	-71	15,763	64	0	872	543	328
June	0	0	-671	15,650	15	0	852	543	308
July	0	15	149	15,369	11	0	857	544	313
August	0	0	-160	15,259	28	0	852	544	308
September	0	34	45	15,005	8	0	854	545	309
October	0	14	127	15,002	11	0	858	545	313
November	0	71	-35	15,001	9	0	860	547	312
December	0	94	-7	14,688	12	0	862	550	312
Average	0	26	73	15,128	20	0	862	550	312
2002 January	0	141	268	14,487	11	0	875	555	320
February	0	191	252	14,306	4	0	887	560	327
March	0	50	198	14,526	8	0	895	561	334
April	0	175	-295	15,325	8	0	891	567	325
May	0	146	77	15,301	7	0	898	571	327
June	0	173	-316	15,397	5	0	894	576	318
July	0	67	-428	15,430	33	0	883	579	304
August	0	121	-260	15,338	9	0	878	582	296
September	0	166	-852	14,861	7	0	858	587	271
October	0	77	672	14,303	4	0	881	590	291
November	0	209	-113	15,155	10	0	884	596	288
December	0	103	-337	14,900	2	0	877	599	278
Average	0	134	-94	14,947	9	0	877	599	278
2003 January	0	5	-153	14,337	10	0	872	599	273
February	0	0	-91	14,382	5	0	870	599	270
March	0	0	325	14,929	10	0	880	599	280
April	0	11	322	15,575	12	0	890	600	290
May	0	114	-211	15,919	15	0	887	603	284
June	0	181	-15	15,618	45	0	892	609	283
July	0	125	2	15,549	7	0	896	612	283
August	0	190	-179	15,685	4	0	896	618	278
September	(s)	202	227	15,444	3	0	909	624	284
October	0	210	299	15,342	14	0	925	631	294
November	0	^R 91	^R -447	^R 15,455	^R 21	0	^R 914	634	^R 280
December	^E 0	^E 137	^E -399	^E 15,318	^E 10	0	^E 907	^E 638	^E 269
Average	^E (s)	^E 106	^E -27	^E 15,301	^E 13	^E 0	^E 907	^E 638	^E 269

^a Stocks are at end of period.
^b A negative number indicates a decrease in stocks and a positive number indicates an increase.
^c Strategic Petroleum Reserve. Crude oil stocks in the SPR include non-U.S. stocks held under foreign or commercial storage agreements.
^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. - =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.
Web Page: <http://www.eia.doe.gov/emeu/mer/petro.html>.
Sources: • **1973-1991:** Energy Information Administration (EIA), *Petroleum Supply Annual 1992, Volume 1*, May 1993, Table S2. • **1992 forward:** EIA, *Petroleum Supply Monthly*, January 2004, Table S2.

Table 3.3a Petroleum Imports From 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 Average	1	0	0	0	0	0	218	213
1996 Average	1	0	0	0	1	1	236	235
1997 Average	0	0	0	0	89	89	253	253
1998 Average	1	0	0	0	336	336	301	300
1999 Average	0	0	0	0	725	725	248	246
2000 Average	1	0	0	0	620	620	272	263
2001 January	0	0	0	0	310	310	247	206
February	0	0	0	0	253	253	280	251
March	0	0	0	0	579	579	308	302
April	0	0	0	0	880	880	263	242
May	0	0	0	0	1,011	1,011	256	240
June	6	0	0	0	810	810	270	270
July	0	0	0	0	710	710	292	287
August	0	0	0	0	563	563	261	256
September	0	0	0	0	1,192	1,192	259	237
October	0	0	0	0	1,177	1,177	226	221
November	0	0	0	0	889	889	196	196
December	0	0	0	0	1,126	1,126	145	140
Average	(s)	0	0	0	795	795	250	237
2002 January	0	0	0	0	988	988	213	207
February	0	0	0	0	709	709	290	279
March	0	0	0	0	813	813	184	179
April	0	0	0	0	619	619	208	201
May	0	0	0	0	482	482	182	163
June	0	0	0	0	167	167	265	244
July	0	0	0	0	301	301	244	238
August	0	0	0	0	246	246	178	169
September	0	0	0	0	148	148	297	286
October	0	0	0	0	248	248	199	182
November	0	0	0	0	403	403	291	264
December	0	0	0	0	394	394	193	190
Average	0	0	0	0	459	459	228	216
2003 January	4	0	0	0	600	600	166	134
February	11	0	0	0	909	909	241	223
March	0	0	0	0	637	637	251	220
April	0	0	0	0	726	726	284	277
May	0	0	0	0	128	128	204	186
June	0	0	0	0	0	0	292	274
July	0	0	0	0	67	67	169	169
August	0	0	0	0	125	125	189	183
September	0	0	0	0	362	362	250	248
October	0	0	0	0	734	734	168	168
November	0	0	0	0	706	706	182	176
11-Month Average	1	0	0	0	450	450	217	205
2002 11-Month Average	0	0	0	0	465	465	231	218
2001 11-Month Average	1	0	0	0	764	764	260	246

^a The country of origin for petroleum products may not be the country of origin for the crude oil from which the products were produced. For example, refined products imported from West European refining areas may have been produced from Middle East crude oil.

^b Imports from the Neutral Zone are reported as originating in either Saudi Arabia or Kuwait depending on the country reported to U.S. Customs.

^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 November 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.

Web Page: <http://www.eia.doe.gov/emeu/mer/petro.html>.

Sources: • **Bahrain:** Energy Information Administration (EIA), Form EIA-814, "Monthly Imports Report." • **All Other Data:** 1973-1991—EIA, *Petroleum Supply Annual 1992, Volume 1*, May, 1993, Table S3. 1992 forward—EIA, *Petroleum Supply Monthly*, January 2004, Table S3.

Table 3.3b Petroleum Imports From 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 Average	0	0	1,344	1,260	10	5	1,573	1,479
1996 Average	0	0	1,363	1,248	3	3	1,604	1,488
1997 Average	4	0	1,407	1,293	2	0	1,755	1,635
1998 Average	4	1	1,491	1,404	3	3	2,136	2,044
1999 Average	10	1	1,478	1,387	2	0	2,464	2,360
2000 Average	9	0	1,572	1,523	15	3	2,488	2,409
2001 January	7	0	1,804	1,629	138	79	2,504	2,224
February	0	0	1,800	1,734	44	0	2,377	2,239
March	20	0	1,788	1,730	4	0	2,699	2,611
April	19	0	1,658	1,626	84	76	2,904	2,824
May	30	0	1,770	1,724	52	35	3,120	3,011
June	23	2	1,764	1,694	28	0	2,901	2,776
July	11	0	1,713	1,683	10	0	2,736	2,680
August	10	0	1,835	1,826	26	17	2,695	2,661
September	14	0	1,478	1,439	84	32	3,028	2,900
October	6	0	1,432	1,384	16	16	2,857	2,797
November	10	0	1,543	1,514	0	0	2,637	2,598
December	10	0	1,370	1,357	0	0	2,651	2,623
Average	13	(s)	1,662	1,611	40	21	2,761	2,664
2002 January	9	0	1,456	1,430	5	0	2,670	2,625
February	11	0	1,474	1,445	0	0	2,484	2,434
March	0	0	1,558	1,526	0	0	2,556	2,517
April	0	0	1,556	1,538	16	16	2,400	2,375
May	10	0	1,564	1,520	0	0	2,238	2,165
June	10	0	1,598	1,565	51	51	2,090	2,026
July	44	35	1,392	1,354	18	0	1,999	1,928
August	9	0	1,444	1,411	25	0	1,903	1,826
September	44	37	1,531	1,512	31	17	2,052	2,000
October	40	32	1,690	1,633	0	0	2,177	2,096
November	0	0	1,511	1,474	17	17	2,222	2,158
December	0	0	1,843	1,815	18	16	2,449	2,415
Average	15	9	1,552	1,519	15	10	2,269	2,213
2003 January	0	0	1,858	1,820	90	34	2,718	2,588
February	0	0	1,437	1,397	13	0	2,612	2,530
March	0	0	1,852	1,812	0	0	2,740	2,669
April	0	0	2,081	2,041	40	19	3,131	3,064
May	9	0	2,287	2,226	9	0	2,637	2,540
June	0	0	2,000	1,919	33	17	2,326	2,210
July	14	0	1,900	1,835	19	0	2,170	2,072
August	0	0	1,535	1,475	0	0	1,849	1,783
September	3	0	1,749	1,692	33	33	2,397	2,335
October	0	0	1,457	1,388	0	0	2,359	2,290
November	0	0	1,681	1,664	17	17	2,586	2,564
11-Month Average	2	0	1,806	1,754	23	11	2,500	2,420
2002 11-Month Average	16	10	1,525	1,492	15	9	2,252	2,194
2001 11-Month Average	14	(s)	1,690	1,635	44	23	2,771	2,668

^a The country of origin for petroleum products may not be the country of origin for the crude oil from which the products were produced. For example, refined products imported from West European refining areas may have been produced from Middle East crude oil.

^b Imports from the Neutral Zone are reported as originating in either Saudi Arabia or Kuwait depending on the country reported to U.S. Customs.

(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.

Web Page: <http://www.eia.doe.gov/emeu/mer/petro.html>.

Sources: • 1973-1991: Energy Information Administration (EIA), *Petroleum Supply Annual 1992, Volume 1*, May 1993, Table S3. • 1992 forward: EIA, *Petroleum Supply Monthly*, January 2004, Table S3.

Table 3.3c Petroleum Imports From 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 Average	234	27	(b)	(b)	(c)	(c)	88	64	0	0
1996 Average	256	8	(b)	(b)	(c)	(c)	59	44	0	0
1997 Average	285	6	(b)	(b)	(c)	(c)	58	51	0	0
1998 Average	290	10	(b)	(b)	(c)	(c)	66	50	0	0
1999 Average	259	25	(b)	(b)	(c)	(c)	81	70	0	0
2000 Average	225	1	(b)	(b)	(c)	(c)	48	36	0	0
2001 January	286	0	(b)	(b)	(c)	(c)	61	20	0	0
February	223	0	(b)	(b)	(c)	(c)	76	42	0	0
March	279	19	(b)	(b)	(c)	(c)	76	60	0	0
April	326	0	(b)	(b)	(c)	(c)	58	52	0	0
May	379	54	(b)	(b)	(c)	(c)	78	73	0	0
June	265	20	(b)	(b)	(c)	(c)	65	57	0	0
July	190	0	(b)	(b)	(c)	(c)	29	28	0	0
August	243	0	(b)	(b)	(c)	(c)	38	37	0	0
September	200	0	(b)	(b)	(c)	(c)	26	25	0	0
October	293	0	(b)	(b)	(c)	(c)	39	29	0	0
November	320	37	(b)	(b)	(c)	(c)	22	21	0	0
December	326	0	(b)	(b)	(c)	(c)	51	42	0	0
Average	278	11	(b)	(b)	(c)	(c)	51	40	0	0
2002 January	265	0	(b)	(b)	(c)	(c)	80	67	0	0
February	248	0	(b)	(b)	(c)	(c)	104	84	0	0
March	347	75	(b)	(b)	(c)	(c)	63	63	0	0
April	366	77	(b)	(b)	(c)	(c)	60	58	0	0
May	343	53	(b)	(b)	(c)	(c)	76	76	0	0
June	293	19	(b)	(b)	(c)	(c)	57	57	0	0
July	160	0	(b)	(b)	(c)	(c)	15	14	0	0
August	183	0	(b)	(b)	(c)	(c)	34	34	0	0
September	249	32	(b)	(b)	(c)	(c)	49	49	0	0
October	239	40	(b)	(b)	(c)	(c)	68	66	0	0
November	226	21	(b)	(b)	(c)	(c)	13	13	0	0
December	245	40	(b)	(b)	(c)	(c)	21	21	0	0
Average	264	30	(b)	(b)	(c)	(c)	53	50	0	0
2003 January	302	39	(b)	(b)	(c)	(c)	25	25	0	0
February	226	0	(b)	(b)	(c)	(c)	15	15	0	0
March	316	40	(b)	(b)	(c)	(c)	10	10	0	0
April	407	77	(b)	(b)	(c)	(c)	46	43	0	0
May	377	81	(b)	(b)	(c)	(c)	10	10	0	0
June	713	282	(b)	(b)	(c)	(c)	11	11	0	0
July	457	86	(b)	(b)	(c)	(c)	0	0	0	0
August	482	192	(b)	(b)	(c)	(c)	66	39	0	0
September	516	243	(b)	(b)	(c)	(c)	35	8	0	0
October	293	86	(b)	(b)	(c)	(c)	133	92	0	0
November	381	162	(b)	(b)	(c)	(c)	71	44	0	0
11-Month Average	407	117	(b)	(b)	(c)	(c)	39	27	0	0
2002 11-Month Average	265	29	(b)	(b)	(c)	(c)	56	53	0	0
2001 11-Month Average	273	12	(b)	(b)	(c)	(c)	51	40	0	0

^a The country of origin for petroleum products may not be the country of origin for the crude oil from which the products were produced. For example, refined products imported from West European refining areas may have been produced from Middle East crude oil.

^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.

Web Page: <http://www.eia.doe.gov/emeu/mer/petro.html>.

Sources: • 1973-1991: Energy Information Administration (EIA), *Petroleum Supply Annual 1992, Volume 1*, May 1993, Table S3. • 1992 forward: EIA, *Petroleum Supply Monthly*, January 2004, Table S3.

Table 3.3d Petroleum Imports From 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 Average	627	621	1,480	1,151	2,430	1,862	4,002	3,341
1996 Average	617	595	1,676	1,303	2,609	1,950	4,211	3,438
1997 Average	698	689	1,773	1,394	2,814	2,140	4,569	3,775
1998 Average	696	689	1,719	1,377	2,771	2,125	4,905	4,169
1999 Average	657	623	1,493	1,150	2,489	1,869	4,953	4,228
2000 Average	896	875	1,546	1,223	2,716	2,135	5,203	4,544
2001 January	881	842	1,796	1,431	3,023	2,294	5,527	4,517
February	894	859	1,500	1,250	2,693	2,150	5,071	4,389
March	1,076	1,057	1,702	1,384	3,133	2,520	5,832	5,131
April	1,192	1,137	1,623	1,333	3,200	2,522	6,104	5,346
May	988	916	1,514	1,312	2,959	2,354	6,080	5,365
June	793	724	1,623	1,297	2,745	2,097	5,641	4,873
July	869	834	1,685	1,445	2,773	2,308	5,509	4,987
August	727	690	1,586	1,374	2,594	2,101	5,289	4,763
September	1,057	994	1,282	1,041	2,565	2,060	5,593	4,960
October	842	812	1,511	1,288	2,685	2,129	5,542	4,926
November	696	662	1,423	1,144	2,461	1,864	5,097	4,462
December	614	579	1,382	1,178	2,373	1,799	5,024	4,423
Average	885	842	1,553	1,291	2,768	2,184	5,528	4,848
2002 January	565	540	1,450	1,233	2,359	1,839	5,029	4,465
February	453	426	1,444	1,222	2,249	1,732	4,733	4,165
March	621	590	1,404	1,148	2,435	1,877	4,991	4,394
April	645	584	1,134	1,014	2,206	1,734	4,606	4,108
May	591	576	1,312	1,117	2,323	1,822	4,561	3,987
June	728	702	1,188	958	2,266	1,737	4,356	3,763
July	607	585	1,585	1,341	2,367	1,940	4,366	3,868
August	820	792	1,699	1,514	2,735	2,341	4,638	4,167
September	547	489	1,556	1,302	2,401	1,871	4,452	3,871
October	597	566	1,605	1,453	2,509	2,125	4,686	4,221
November	596	562	1,625	1,453	2,459	2,048	4,682	4,206
December	670	645	778	652	1,715	1,358	4,164	3,774
Average	621	589	1,398	1,201	2,336	1,870	4,605	4,083
2003 January	825	798	406	399	1,558	1,261	4,272	3,850
February	536	494	613	559	1,390	1,068	3,990	3,598
March	1,012	954	1,292	1,139	2,630	2,145	5,371	4,814
April	733	697	1,618	1,383	2,805	2,200	5,936	5,264
May	958	907	1,638	1,391	2,982	2,389	5,619	4,929
June	953	924	1,499	1,258	3,176	2,475	5,502	4,685
July	843	804	1,349	1,220	2,648	2,110	4,818	4,182
August	995	988	1,653	1,434	3,197	2,653	5,045	4,436
September	936	905	1,602	1,362	3,089	2,518	5,486	4,853
October	1,038	979	1,631	1,366	3,096	2,524	5,454	4,814
November	646	622	1,655	1,444	2,754	2,271	5,341	4,835
11-Month Average	865	828	1,364	1,181	2,674	2,154	5,173	4,574
2002 11-Month Average	617	584	1,456	1,252	2,394	1,918	4,646	4,111
2001 11-Month Average	910	866	1,569	1,302	2,804	2,220	5,575	4,888

^a The country of origin for petroleum products may not be the country of origin for the crude oil from which the products were produced. For example, refined products imported from West European refining areas may have been produced from Middle East crude oil.

^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 November 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.

Web Page: <http://www.eia.doe.gov/emeu/mer/petro.html>.

Sources: • **1973-1991:** Energy Information Administration (EIA), *Petroleum Supply Annual 1992, Volume 1*, May 1993, Table S3. • **1992 forward:** EIA, *Petroleum Supply Monthly*, January 2004, Table S3.

Table 3.3e Petroleum Imports From Angola, Australia, Bahamas, Brazil, Canada, and China

(Thousand Barrels per Day)

	Non-OPEC ^a											
	Angola		Australia		Bahamas		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 Average	367	360	16	16	2	0	8	0	1,332	1,040	53	53
1996 Average	351	344	31	25	1	0	9	0	1,424	1,075	57	57
1997 Average	427	425	48	31	1	0	5	0	1,563	1,198	49	48
1998 Average	468	465	57	31	4	0	26	0	1,598	1,266	42	42
1999 Average	361	357	42	31	3	0	26	0	1,539	1,178	21	13
2000 Average	301	295	56	49	0	0	51	5	1,807	1,348	44	33
2001 January	312	300	53	44	0	0	143	35	1,935	1,342	33	33
February	499	485	27	20	0	0	88	0	1,867	1,346	2	0
March	374	374	47	20	6	0	81	21	1,938	1,411	35	14
April	381	381	111	68	14	0	87	31	1,852	1,391	24	14
May	358	356	31	21	0	0	127	16	1,780	1,368	31	21
June	302	302	22	22	5	0	67	0	1,900	1,472	26	0
July	297	285	65	65	0	0	86	0	1,690	1,270	23	20
August	323	311	20	20	19	0	54	0	1,723	1,272	57	28
September	334	324	46	46	10	0	80	17	1,685	1,262	22	0
October	242	222	30	21	26	0	84	32	1,734	1,316	22	21
November	267	267	21	21	31	0	56	0	1,899	1,414	0	0
December	263	263	46	46	10	0	33	0	1,944	1,408	9	0
Average	328	321	43	34	10	0	82	13	1,828	1,356	24	13
2002 January	310	297	41	41	20	0	48	16	1,901	1,307	2	0
February	304	290	69	69	26	0	84	52	1,897	1,374	45	42
March	321	300	42	42	46	0	131	65	1,844	1,339	4	0
April	384	371	66	66	7	0	163	84	2,032	1,497	1	0
May	336	336	63	63	19	0	144	77	1,969	1,496	16	15
June	475	463	21	21	16	0	149	69	1,914	1,466	51	34
July	308	298	43	43	35	0	114	59	1,901	1,359	43	32
August	233	220	45	23	47	0	191	119	2,020	1,526	45	34
September	342	329	87	65	53	0	90	53	1,883	1,413	16	0
October	258	246	67	67	55	0	132	75	2,110	1,578	49	48
November	402	390	84	64	37	0	73	17	2,083	1,484	22	21
December	317	312	61	51	42	0	66	14	2,090	1,493	15	13
Average	332	321	57	51	34	0	116	58	1,971	1,445	26	20
2003 January	263	245	20	20	31	0	114	48	2,235	1,621	19	16
February	265	251	23	23	27	0	110	36	1,971	1,423	15	14
March	381	381	20	20	41	0	76	15	1,872	1,406	38	7
April	494	482	12	12	35	0	75	17	1,754	1,271	20	6
May	356	356	20	20	37	0	67	33	2,119	1,610	22	7
June	403	390	44	22	67	0	71	48	1,944	1,505	38	6
July	529	517	47	23	18	0	144	63	2,109	1,594	71	25
August	483	471	62	41	37	0	198	82	2,131	1,586	21	13
September	401	401	84	63	6	0	132	68	2,081	1,538	38	24
October	385	373	45	45	25	0	80	17	2,175	1,695	5	5
November	203	191	22	22	4	0	93	68	2,178	1,639	29	28
11-Month Average ...	380	370	36	28	30	0	106	45	2,053	1,537	29	14
2002 11-Month Average ...	333	322	57	51	33	0	120	63	1,960	1,440	27	20
2001 11-Month Average ...	334	327	43	33	10	0	87	14	1,818	1,351	25	14

^a The country of origin for petroleum products may not be the country of origin for the crude oil from which the products were produced. For example, refined products imported from West European refining areas may have been produced from Middle East crude oil.

(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.

Web Page: <http://www.eia.doe.gov/emeu/mer/petro.html>.

Sources: • 1973-1991: Energy Information Administration (EIA), *Petroleum Supply Annual 1992, Volume 1*, May 1993, Table S3. • 1992 forward: EIA, *Petroleum Supply Monthly*, January 2004, Table S3.

Table 3.3f Petroleum Imports From 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 Average	219	207	97	96	229	229	5	0	8	6	1,068	1,027
1996 Average	234	226	104	96	184	184	8	0	11	6	1,244	1,207
1997 Average	271	270	115	114	230	230	7	0	23	8	1,385	1,360
1998 Average	354	349	101	98	207	207	12	0	35	26	1,351	1,321
1999 Average	468	452	118	114	168	168	10	0	35	21	1,324	1,254
2000 Average	342	318	128	125	143	143	30	0	45	29	1,373	1,313
2001 January	379	345	103	94	94	94	43	0	41	4	1,456	1,391
February	321	294	92	90	177	177	44	0	18	0	1,120	1,058
March	228	204	103	103	152	152	64	0	87	54	1,454	1,371
April	301	257	123	120	177	177	24	0	39	22	1,572	1,548
May	323	260	155	149	127	127	49	0	31	0	1,312	1,266
June	308	248	111	84	155	155	32	0	24	13	1,234	1,214
July	239	215	126	117	149	149	55	0	13	0	1,348	1,322
August	350	326	126	113	98	98	19	0	26	10	1,471	1,422
September	307	268	133	132	86	86	63	0	29	21	1,490	1,437
October	234	226	184	178	136	136	27	0	59	34	1,432	1,399
November	278	236	97	97	173	173	47	0	25	12	1,765	1,717
December	283	242	80	80	159	159	8	0	47	15	1,603	1,558
Average	296	260	120	113	140	140	40	0	37	15	1,440	1,394
2002 January	260	228	116	83	206	206	30	0	33	14	1,416	1,373
February	352	331	84	77	61	61	26	0	11	0	1,611	1,571
March	242	233	110	104	124	124	54	0	6	0	1,473	1,437
April	291	266	93	75	164	164	38	0	0	0	1,486	1,442
May	210	192	91	82	188	188	36	0	30	22	1,565	1,492
June	229	204	117	105	123	123	16	0	7	0	1,519	1,474
July	224	203	110	93	206	206	22	0	20	11	1,604	1,529
August	239	217	79	79	170	170	24	0	38	29	1,500	1,475
September	275	263	114	102	164	164	24	0	0	0	1,453	1,417
October	255	232	156	151	88	88	34	0	22	17	1,574	1,524
November	270	212	153	148	127	127	40	0	23	12	1,580	1,532
December	289	248	100	100	88	88	58	0	4	0	1,781	1,734
Average	260	235	110	100	143	143	34	0	16	9	1,547	1,500
2003 January	141	120	71	71	113	113	25	0	12	11	1,621	1,566
February	268	240	93	93	168	168	21	0	15	0	1,580	1,495
March	202	146	82	82	98	98	49	0	8	0	1,362	1,320
April	211	170	101	95	135	135	56	0	27	21	1,687	1,657
May	162	133	146	135	129	129	39	0	31	22	1,540	1,496
June	170	146	136	120	140	140	20	0	0	0	1,530	1,472
July	188	161	144	139	98	98	24	0	118	95	1,739	1,689
August	226	206	173	170	144	144	32	0	62	62	1,643	1,600
September	200	182	173	167	102	102	28	0	50	22	1,735	1,700
October	231	186	245	234	141	141	25	0	27	9	1,741	1,687
November	129	102	103	103	142	142	49	0	13	0	1,683	1,611
11-Month Average	193	162	134	128	128	128	34	0	33	22	1,624	1,572
2002 11-Month Average	258	234	111	100	148	148	31	0	17	10	1,525	1,478
2001 11-Month Average	297	261	123	117	138	138	43	0	36	16	1,425	1,378

^a The country of origin for petroleum products may not be the country of origin for the crude oil from which the products were produced. For example, refined products imported from West European refining areas may have been produced from Middle East crude oil.

^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.

Web Page: <http://www.eia.doe.gov/emeu/mer/petro.html>.

Sources: • 1973-1991: Energy Information Administration (EIA), *Petroleum Supply Annual 1992, Volume 1*, May 1993, Table S3. • 1992 forward: EIA, *Petroleum Supply Monthly*, January 2004, Table S3.

Table 3.3g Petroleum Imports From 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 Average	15	0	52	0	273	258	15	0	25	14	16	1
1996 Average	19	0	64	0	313	293	20	0	25	18	29	1
1997 Average	25	0	74	0	309	288	16	0	13	3	21	0
1998 Average	31	0	82	0	236	221	15	0	24	9	18	0
1999 Average	27	0	65	0	304	263	13	0	89	21	10	0
2000 Average	30	1	90	0	343	302	15	0	72	7	25	0
2001 January	77	0	141	0	321	229	11	0	190	0	58	0
February	48	0	101	0	395	299	8	0	183	0	47	0
March	48	0	125	0	400	313	5	0	53	0	35	0
April	23	0	105	0	382	325	6	0	115	0	19	0
May	61	0	44	0	411	376	3	0	88	0	31	0
June	56	0	66	0	284	254	12	0	47	0	33	0
July	25	0	70	0	448	363	0	0	81	0	25	0
August	40	0	67	0	287	227	0	0	118	0	11	0
September	34	0	55	0	388	350	3	0	124	0	27	0
October	50	0	75	0	259	211	0	0	34	0	22	0
November	22	0	77	0	387	331	0	0	22	0	16	0
December	33	0	46	0	140	106	0	0	30	0	43	0
Average	43	0	81	0	341	281	4	0	90	0	31	0
2002 January	25	0	120	0	155	135	0	0	61	0	16	0
February	48	0	145	0	264	224	0	0	51	0	10	0
March	77	0	112	0	338	296	0	0	95	12	19	0
April	111	0	94	0	577	523	2	0	192	36	8	0
May	103	0	48	0	519	467	0	0	371	220	23	0
June	69	0	76	0	527	490	0	0	231	78	8	0
July	39	0	51	0	495	448	0	0	220	79	30	0
August	87	0	56	0	478	402	0	0	236	100	29	0
September	21	0	77	0	342	294	0	0	225	104	0	0
October	75	0	71	0	318	308	0	0	295	190	0	0
November	70	0	84	0	409	388	0	0	255	85	19	0
December	61	0	43	0	288	202	0	0	276	108	41	0
Average	66	0	81	0	393	348	(s)	0	210	85	17	0
2003 January	132	0	49	0	210	104	0	0	190	99	12	0
February	79	0	117	0	255	211	0	0	271	121	26	0
March	110	0	64	0	199	147	0	0	255	16	16	0
April	88	0	83	0	248	148	0	0	129	19	17	0
May	76	0	143	0	303	190	0	0	207	142	49	0
June	97	0	59	0	342	211	0	0	510	424	44	0
July	100	0	59	0	231	128	0	0	550	479	16	0
August	92	0	39	0	344	192	0	0	411	288	7	0
September	102	0	46	0	288	214	0	0	275	142	11	0
October	80	0	60	0	296	190	0	0	93	34	10	0
November	91	0	78	0	188	129	0	0	71	0	41	0
11-Month Average	95	0	72	0	264	169	0	0	270	161	23	0
2002 11-Month Average	66	0	84	0	402	362	(s)	0	204	83	15	0
2001 11-Month Average	44	0	84	0	360	298	4	0	95	0	29	0

^a The country of origin for petroleum products may not be the country of origin for the crude oil from which the products were produced. For example, refined products imported from West European refining areas may have been produced from Middle East crude oil.

^b Imports from other republics 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.

Web Page: <http://www.eia.doe.gov/emeu/mer/petro.html>.

Sources: • 1973-1991: Energy Information Administration (EIA), *Petroleum Supply Annual 1992, Volume 1*, May 1993, Table S3. • 1992 forward: EIA, *Petroleum Supply Monthly*, January 2004, Table S3.

Table 3.3h Petroleum Imports From Trinidad and Tobago, United Kingdom, U.S. 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		U.S. Virgin Islands		Other Non-OPEC ^b		Total				
	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	4,347	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 Average	70	62	383	341	278	0	302	181	4,833	3,889	8,835	7,230	
1996 Average	76	58	308	216	313	0	440	265	5,267	4,070	9,478	7,508	
1997 Average	61	56	226	169	300	0	422	250	5,593	4,450	10,162	8,225	
1998 Average	66	53	250	161	293	0	531	288	5,803	4,537	10,708	8,706	
1999 Average	58	40	365	284	280	1	575	304	5,899	4,502	10,852	8,731	
2000 Average	85	56	366	291	291	0	618	214	6,257	4,526	11,459	9,071	
2001 January	95	55	417	287	339	0	785	164	7,028	4,415	12,555	8,933	
February	45	16	378	249	273	0	840	186	6,573	4,220	11,643	8,609	
March	67	57	253	167	263	0	483	211	6,301	4,472	12,132	9,603	
April	85	60	254	155	201	0	656	216	6,549	4,764	12,653	10,111	
May	58	38	418	359	223	0	793	164	6,450	4,520	12,529	9,885	
June	70	59	241	192	339	0	759	218	6,091	4,232	11,732	9,105	
July	85	58	368	309	320	0	739	392	6,252	4,565	11,760	9,552	
August	86	51	314	273	202	0	920	469	6,333	4,620	11,622	9,383	
September	91	51	229	165	283	0	704	221	6,225	4,379	11,818	9,339	
October	45	39	365	265	263	0	514	182	5,837	4,284	11,379	9,211	
November	68	56	367	278	259	0	656	257	6,531	4,858	11,628	9,320	
December	69	69	286	225	247	0	592	246	5,969	4,417	10,994	8,839	
Average	72	51	324	244	268	0	702	244	6,343	4,480	11,871	9,328	
2002 January	53	53	366	284	278	0	604	207	6,059	4,244	11,088	8,709	
February	84	84	360	279	242	0	398	133	6,171	4,588	10,904	8,753	
March	72	68	272	220	198	0	631	164	6,207	4,405	11,198	8,799	
April	59	59	454	380	168	0	772	230	7,160	5,193	11,765	9,301	
May	71	63	436	351	165	0	804	273	7,208	5,337	11,769	9,323	
June	89	76	726	613	236	0	799	346	7,397	5,561	11,753	9,324	
July	72	72	529	481	240	0	951	403	7,258	5,316	11,624	9,184	
August	58	50	574	480	234	0	872	454	7,252	5,378	11,890	9,544	
September	104	76	353	278	231	0	769	367	6,622	4,926	11,075	8,797	
October	112	75	582	486	235	0	718	225	7,207	5,311	11,893	9,532	
November	102	82	669	632	321	0	762	255	7,586	5,448	12,268	9,654	
December	85	55	415	376	281	0	534	173	6,935	4,968	11,100	8,741	
Average	80	68	478	405	236	0	720	270	6,925	5,058	11,530	9,140	
2003 January	119	73	491	411	179	0	688	181	6,736	4,698	11,008	8,547	
February	78	44	474	407	250	0	667	179	6,773	4,706	10,764	8,303	
March	105	78	379	299	328	0	799	226	6,486	4,242	11,857	9,055	
April	110	82	343	241	245	0	640	189	6,510	4,543	12,446	9,807	
May	97	82	519	437	258	0	875	358	7,195	5,149	12,814	10,078	
June	50	44	503	373	278	0	992	364	7,439	5,266	12,941	9,951	
July	128	98	483	420	351	0	824	348	7,970	5,877	12,788	10,059	
August	58	36	379	319	345	0	971	490	7,859	5,701	12,904	10,137	
September	124	87	558	487	338	0	786	359	7,556	5,558	13,042	10,412	
October	84	60	317	274	306	0	702	396	7,072	5,345	12,526	10,159	
November	112	68	300	234	291	0	687	307	6,505	4,644	11,846	9,479	
11-Month Average	97	69	431	355	288	0	786	310	7,104	5,070	12,277	9,644	
2002 11-Month Average	79	69	484	408	231	0	737	279	6,924	5,066	11,570	9,177	
2001 11-Month Average	72	49	328	246	269	0	713	244	6,378	4,486	11,953	9,374	

^a The country of origin for petroleum products may not be the country of origin for the crude oil from which the products were produced. For example, refined products imported from West European refining areas may have been produced from Middle East crude oil.

^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.

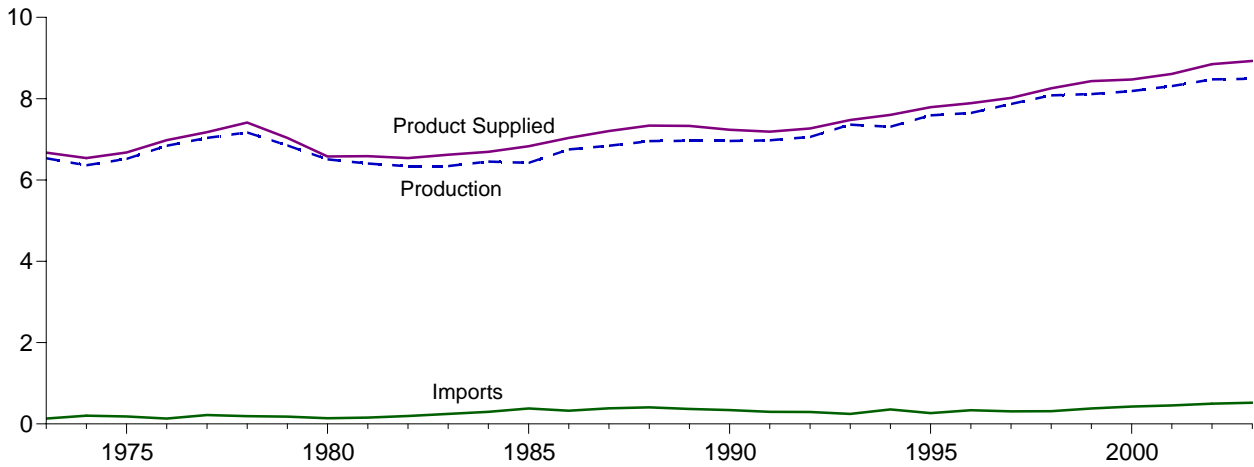
Notes: • Beginning in October 1977, Strategic Petroleum Reserve imports are included. • Totals may not equal sum of components due to independent rounding. • U.S. geographic coverage is the 50 States and the District of Columbia.

Web Page: <http://www.eia.doe.gov/emeu/mer/petro.html>.

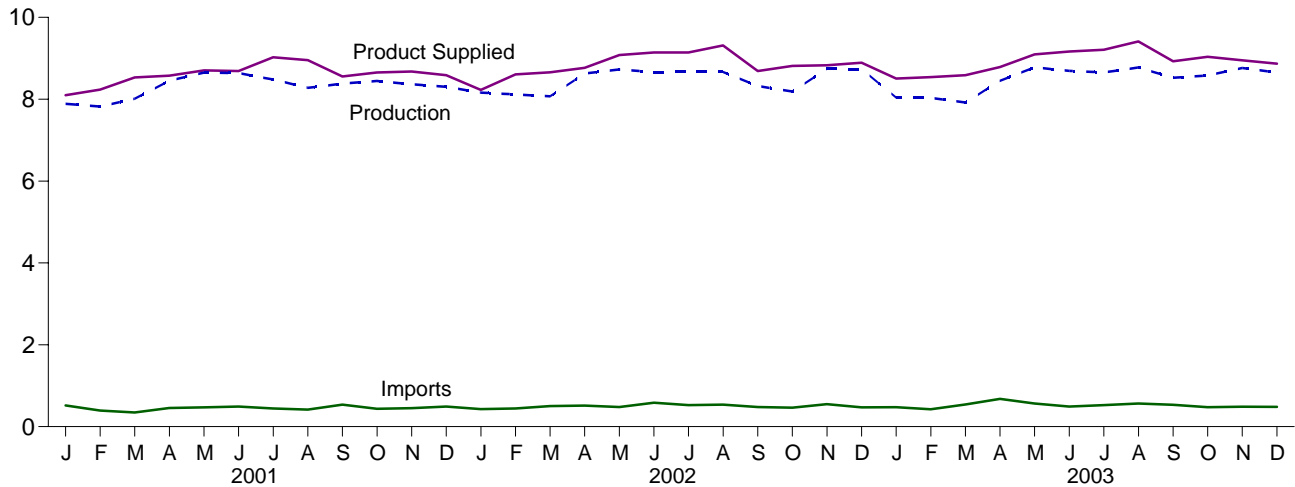
Sources: • 1973-1991: Energy Information Administration (EIA), *Petroleum Supply Annual 1992, Volume 1*, May 1993, Table S3. • 1992 forward: EIA, *Petroleum Supply Monthly*, January 2004, Table S3.

Figure 3.2 Finished Motor Gasoline
(Million Barrels per Day, Except as Noted)

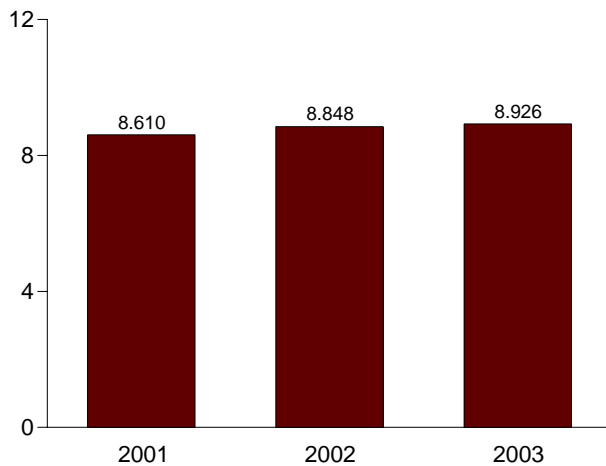
Overview, 1973-2003



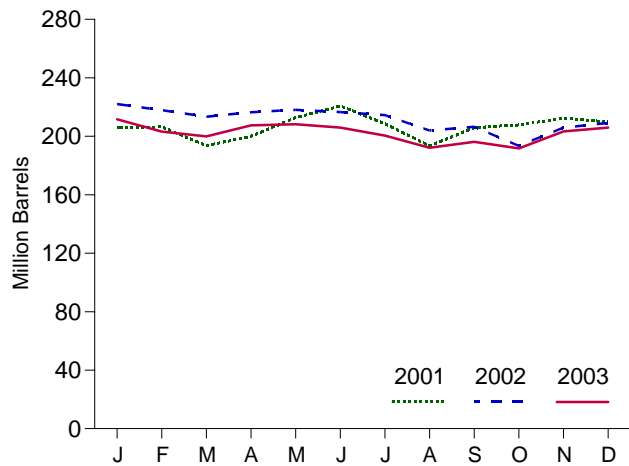
Overview, Monthly



Product Supplied, January-December



Total Stocks, End of Month



Note: Because vertical scales differ, graphs should not be compared.
Web Page: <http://www.eia.doe.gov/emeu/mer/petro.html>
Source: Table 3.4.

Table 3.4 Finished Motor Gasoline Supply and Disposition

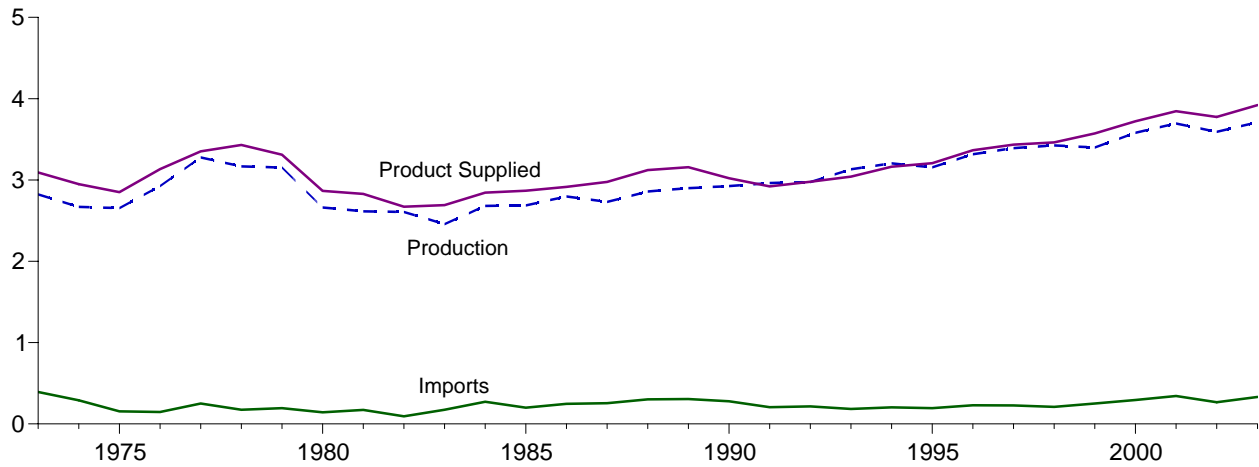
	Supply		Disposition			Motor Gasoline Stocks ^a		Oxygenates Stocks ^a
	Total Production	Imports ^b	Stock Change ^{b,c}	Exports	Product Supplied	Total ^d	Finished	
	Thousand Barrels per Day					Million Barrels		
1973 Average	6,535	134	-9	4	6,674	209	NA	NA
1974 Average	6,360	204	24	2	6,537	^e 218	NA	NA
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 Average	7,588	265	-40	104	7,789	202	161	12
1996 Average	7,647	336	-12	104	7,891	195	157	13
1997 Average	7,870	309	26	137	8,017	210	166	12
1998 Average	8,082	311	15	125	8,253	216	172	14
1999 Average	8,111	382	-49	111	8,431	193	154	14
2000 Average	8,186	427	-3	144	8,472	196	153	12
2001 January	7,888	519	183	125	8,099	206	159	12
February	7,822	394	-146	128	8,234	206	155	12
March	8,011	346	-320	145	8,532	194	145	12
April	8,450	455	187	143	8,575	200	150	12
May	8,651	473	316	102	8,706	213	160	12
June	8,637	490	310	127	8,690	221	169	13
July	8,481	443	-229	129	9,023	209	162	13
August	8,277	415	-378	117	8,953	193	151	13
September	8,381	539	248	115	8,557	206	158	14
October	8,446	435	70	156	8,655	208	160	13
November	8,366	452	34	107	8,677	212	161	13
December	8,301	491	7	200	8,585	210	161	13
Average	8,312	454	23	133	8,610	210	161	13
2002 January	8,160	428	265	96	8,227	222	170	15
February	8,117	442	-149	102	8,607	218	166	14
March	8,072	504	-183	104	8,655	213	160	14
April	8,626	512	239	134	8,766	216	167	14
May	8,729	480	42	88	9,078	218	168	15
June	8,661	586	-25	131	9,140	217	168	15
July	8,665	526	-89	136	9,143	215	165	15
August	8,666	538	-241	133	9,313	204	157	14
September	8,320	480	1	113	8,687	206	157	13
October	8,190	465	-295	135	8,814	194	148	13
November	8,738	548	327	130	8,829	206	158	13
December	8,734	470	124	186	8,893	209	162	12
Average	8,475	498	1	124	8,848	209	162	12
2003 January	8,038	474	-166	175	8,504	212	158	13
February	8,031	425	-227	143	8,540	203	152	14
March	7,917	541	-229	102	8,585	200	145	15
April	8,449	679	232	111	8,785	208	152	14
May	8,780	563	133	113	9,097	208	156	15
June	8,694	490	-90	109	9,165	206	153	14
July	8,653	524	-122	90	9,209	201	150	13
August	8,773	565	-157	84	9,410	192	145	11
September	8,524	534	2	129	8,927	196	145	14
October	8,578	475	-144	159	9,037	192	140	13
November	^R 8,764	^R 489	^R 185	^R 118	^R 8,949	^R 203	^R 146	12
December	^E 8,653	^E 483	^E 132	^E 134	^E 8,870	^E 206	^E 148	NA
Average	^E 8,490	^E 521	^E -37	^E 122	^E 8,926	^E 206	^E 148	NA

^a Stocks are at 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

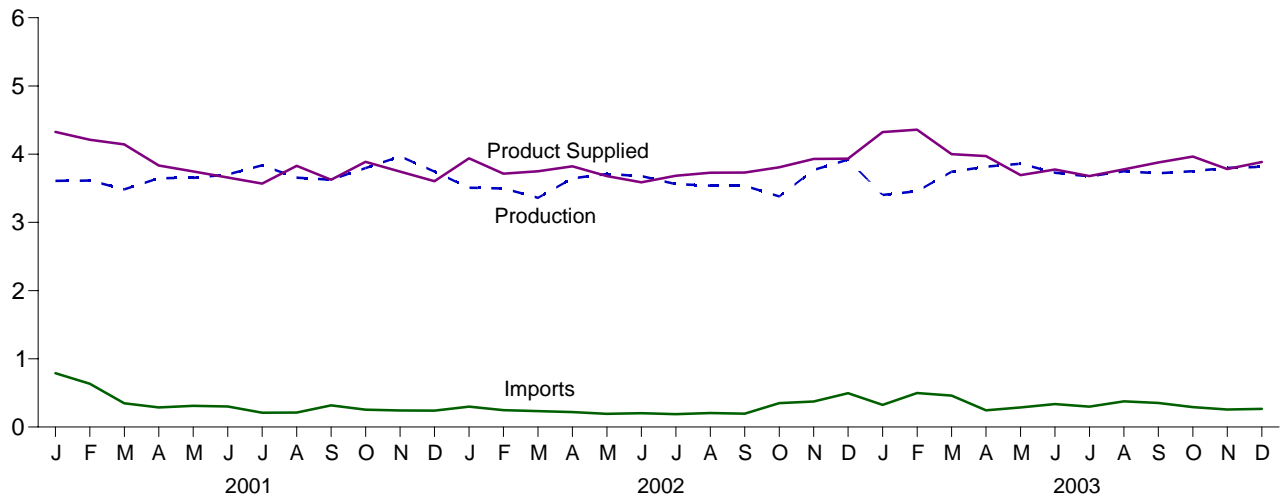
imbalance of motor gasoline blending components. See Note 2 at end of section.
^h See Note 1 at end of section.
^R=Revised. ^{NA}=Not available. ^E=Estimate. (s)=Less than 500 barrels per day.
 Note: Geographic coverage is the 50 States and the District of Columbia. Web Page: <http://www.eia.doe.gov/emeu/mer/petro.html>.
 Sources: • 1973-1991: Energy Information Administration (EIA), *Petroleum Supply Annual 1992, Volume 1*, May 1993, Table S4. • 1992 forward: EIA, *Petroleum Supply Monthly*, January 2004, Table S4.

Figure 3.3 Distillate Fuel Oil
(Million Barrels per Day, Except as Noted)

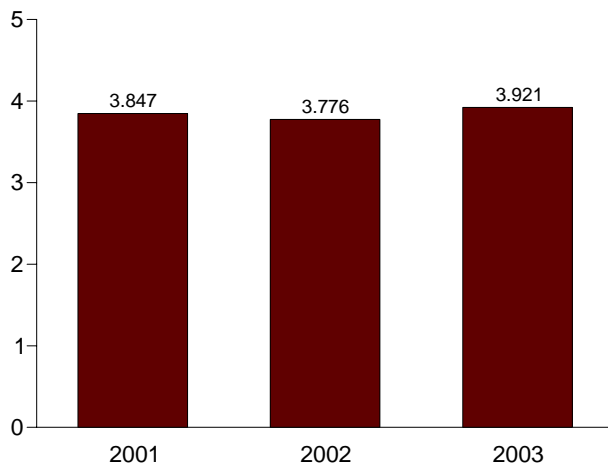
Overview, 1973-2003



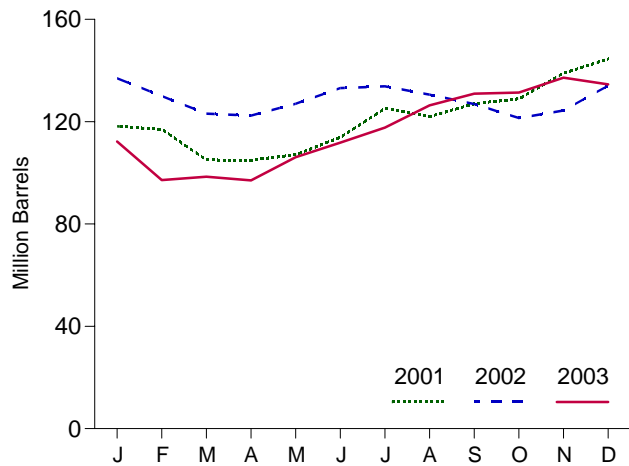
Overview, Monthly



Product Supplied, January-December



Stocks, End of Month



Note: Because vertical scales differ, graphs should not be compared.
Web Page: <http://www.eia.doe.gov/emeu/mer/petro.html>
Source: Table 3.5.

Table 3.5 Distillate Fuel Oil Supply and Disposition

	Supply			Disposition			Stocks ^a		
	Total Production	Imports	Crude Oil Used Directly ^b	Stock Change ^c	Exports	Product Supplied ^b	Total	Sulfur Content	
								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 Average	3,155	193	-	-41	183	3,207	130	67	63
1996 Average	3,316	230	-	-10	190	3,365	127	68	58
1997 Average	3,392	228	-	32	152	3,435	138	68	70
1998 Average	3,424	210	-	48	124	3,461	156	77	79
1999 Average	3,399	250	-	-84	162	3,572	125	69	56
2000 Average	3,580	295	-	-20	173	3,722	118	72	46
2001 January	3,609	789	-	6	67	4,325	118	68	50
February	3,612	635	-	-42	77	4,212	117	70	47
March	3,483	348	-	-387	75	4,143	105	68	37
April	3,650	288	-	-3	107	3,834	105	66	39
May	3,652	310	-	71	146	3,746	107	65	42
June	3,702	302	-	225	120	3,659	114	69	45
July	3,837	209	-	364	113	3,569	125	74	51
August	3,654	212	-	-102	140	3,829	122	68	54
September	3,625	317	-	166	152	3,624	127	72	55
October	3,796	253	-	62	99	3,888	129	69	60
November	3,968	244	-	334	132	3,746	139	76	63
December	3,744	241	-	180	202	3,604	145	82	62
Average	3,695	344	-	73	119	3,847	145	82	62
2002 January	3,508	298	-	-244	109	3,940	137	80	57
February	3,498	248	-	-248	279	3,714	130	78	52
March	3,360	234	-	-223	67	3,750	123	74	49
April	3,647	219	-	-23	68	3,821	122	74	48
May	3,709	193	-	149	74	3,679	127	77	50
June	3,679	204	-	203	93	3,587	133	79	54
July	3,561	188	-	22	44	3,683	134	77	57
August	3,538	205	-	-104	119	3,728	131	71	60
September	3,536	196	-	-124	127	3,730	127	68	59
October	3,380	350	-	-175	96	3,808	121	66	56
November	3,768	373	-	99	114	3,929	124	71	53
December	3,922	496	-	312	171	3,934	134	81	53
Average	3,592	267	-	-29	112	3,776	134	81	53
2003 January	3,403	324	-	-717	119	4,325	112	68	44
February	3,455	498	-	-538	132	4,359	97	60	37
March	3,743	460	-	43	161	4,000	99	63	35
April	3,817	246	-	-48	139	3,972	97	66	31
May	3,860	287	-	293	162	3,692	106	72	34
June	3,728	337	-	189	101	3,775	112	74	38
July	3,673	299	-	191	103	3,678	118	75	43
August	3,750	375	-	280	68	3,778	126	76	50
September	3,721	352	-	152	43	3,878	131	77	54
October	3,750	293	-	15	62	3,966	131	73	58
November	^R 3,800	^R 256	-	^R 193	^R 81	^R 3,782	^R 137	^R 79	^R 59
December	^E 3,815	^E 267	-	^E 99	^E 98	^E 3,885	^E 135	^E 79	^E 55
Average	^E 3,711	^E 332	-	^E 16	^E 106	^E 3,921	^E 135	^E 79	^E 55

^a Stocks are at end of period. Distillate fuel oil stocks in the "Northeast Heating Oil Reserve" are not included.

^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. NA=Not available. - =Not applicable. E=Estimate.

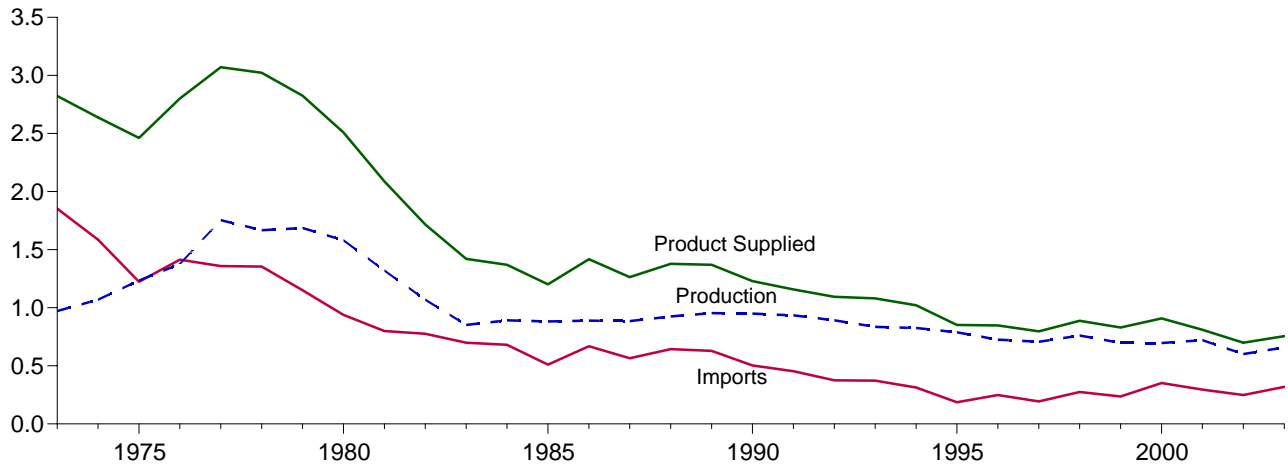
Notes: • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: <http://www.eia.doe.gov/emeu/mer/petro.html>.

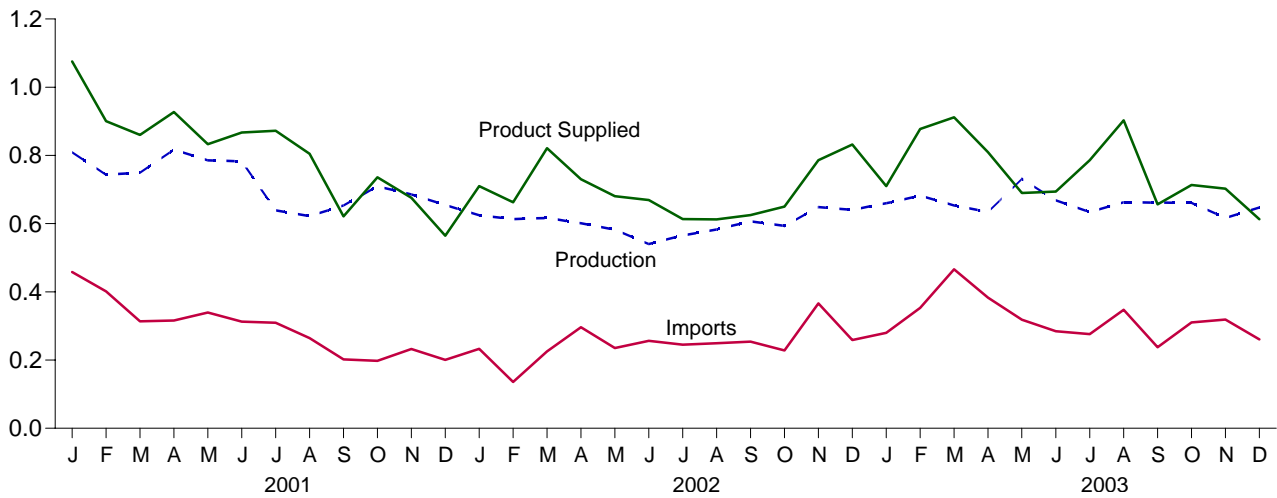
Sources: • 1973-1991: Energy Information Administration (EIA), *Petroleum Supply Annual 1992, Volume 1*, May 1993, Table S5. • 1992 forward: EIA, *Petroleum Supply Monthly*, January 2004, Table S5.

Figure 3.4 Residual Fuel Oil
(Million Barrels per Day, Except as Noted)

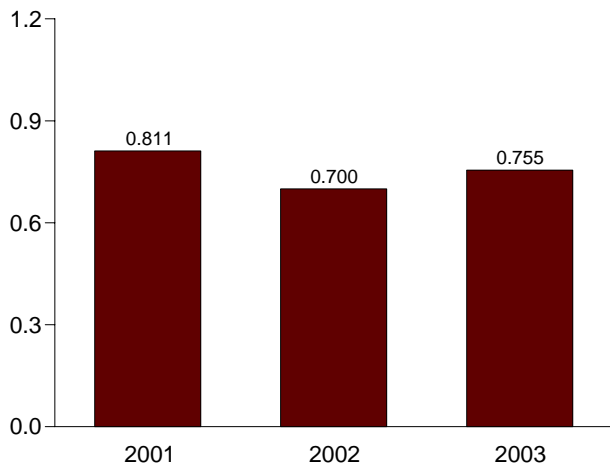
Overview, 1973-2003



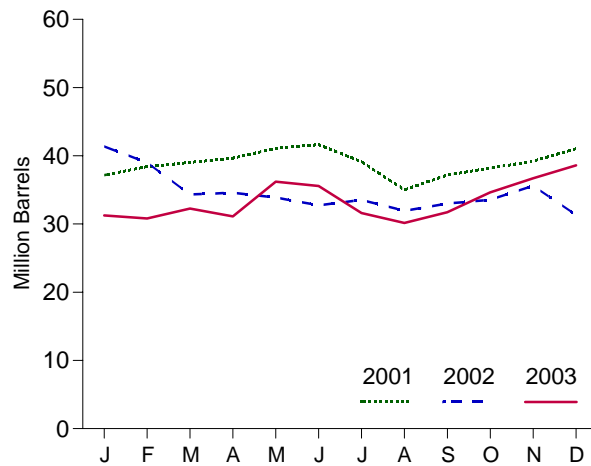
Overview, Monthly



Product Supplied, January-December



Stocks, End of Month



Note: Because vertical scales differ, graphs should not be compared.
Web Page: <http://www.eia.doe.gov/emeu/mer/petro.html>
Source: Table 3.6.

Table 3.6 Residual Fuel Oil Supply and Disposition

	Supply			Disposition			Stocks ^c
	Total Production	Imports	Crude Oil Used Directly ^a	Stock Change ^b	Exports	Product Supplied ^a	
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	60
1975 Average	1,235	1,223	15	-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	92
1981 Average ^e	1,321	800	48	-37	118	2,088	78
1982 Average	1,070	776	48	-32	209	1,716	66
1983 Average	852	699	-	-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 Average	788	187	-	-13	136	852	37
1996 Average	726	248	-	24	102	848	46
1997 Average	708	194	-	-15	120	797	40
1998 Average	762	275	-	12	138	887	45
1999 Average	698	237	-	-25	129	830	36
2000 Average	696	352	-	1	139	909	36
2001							
January	809	458	-	31	160	1,075	37
February	743	401	-	44	200	901	38
March	750	313	-	20	183	860	39
April	817	316	-	21	185	927	40
May	786	339	-	46	246	833	41
June	783	313	-	19	209	867	42
July	639	309	-	-82	158	872	39
August	622	264	-	-132	214	805	35
September	653	202	-	72	161	621	37
October	710	198	-	33	139	736	38
November	685	233	-	33	209	676	39
December	655	200	-	60	231	565	41
Average	721	295	-	13	191	811	41
2002							
January	625	233	-	10	138	710	41
February	613	136	-	-84	171	662	39
March	617	225	-	-151	171	821	34
April	601	296	-	9	159	730	35
May	582	235	-	-23	160	680	34
June	540	256	-	-38	165	669	33
July	566	245	-	26	171	614	34
August	583	249	-	-52	272	612	32
September	607	254	-	36	200	625	33
October	593	228	-	18	153	650	34
November	648	366	-	68	160	786	36
December	641	259	-	-138	205	832	31
Average	601	249	-	-27	177	700	31
2003							
January	660	280	-	-1	231	710	31
February	682	353	-	-16	173	877	31
March	653	466	-	47	161	912	32
April	634	383	-	-39	247	809	31
May	731	318	-	165	195	690	36
June	668	284	-	-22	280	694	36
July	634	276	-	-128	252	786	32
August	663	347	-	-47	154	903	30
September	662	237	-	52	191	657	32
October	661	310	-	94	164	713	35
November	^R 616	^R 319	-	^R 69	^R 163	^R 702	^R 37
December	^E 647	^E 260	-	^E 90	^E 205	^E 613	^E 39
Average	^E 659	^E 319	-	^E 22	^E 201	^E 755	^E 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 at end of period.

^d See Note 4 at end of section.

^e See Note 3 at end of section.

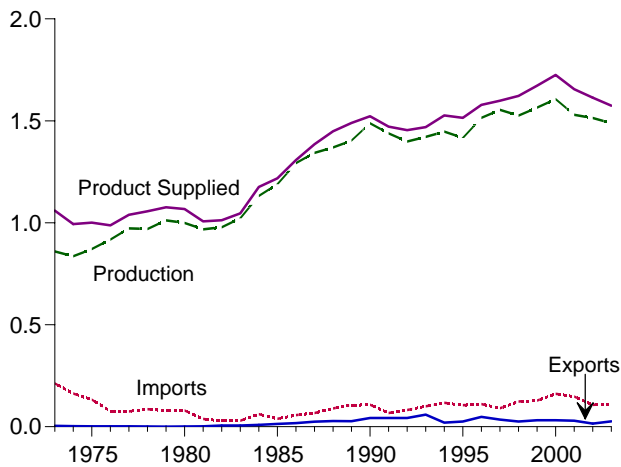
R=Revised. - =Not applicable. E=Estimate. (s)=Less than +500 barrels per day and greater than -500 barrels per day.

Note: Geographic coverage is the 50 States and the District of Columbia. Web Page: <http://www.eia.doe.gov/emeu/mer/petro.html>.

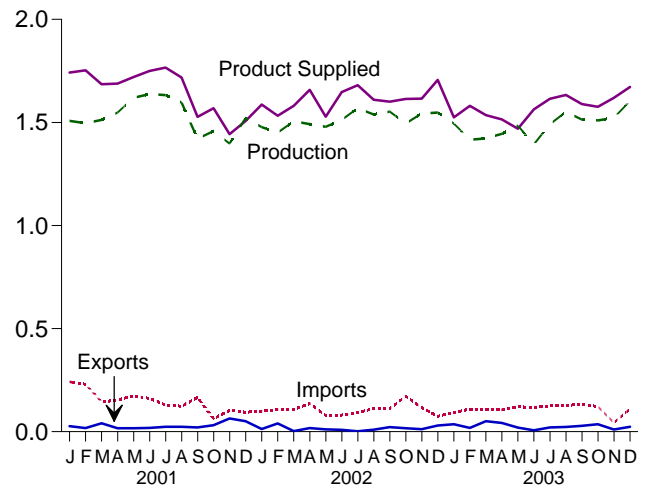
Sources: • 1973-1991: Energy Information Administration (EIA), *Petroleum Supply Annual 1992, Volume 1*, May 1993, Table S6. • 1992 forward: EIA, *Petroleum Supply Monthly*, January 2004, Table S6.

Figure 3.5 Jet Fuel
(Million Barrels Per Day, Except as Noted)

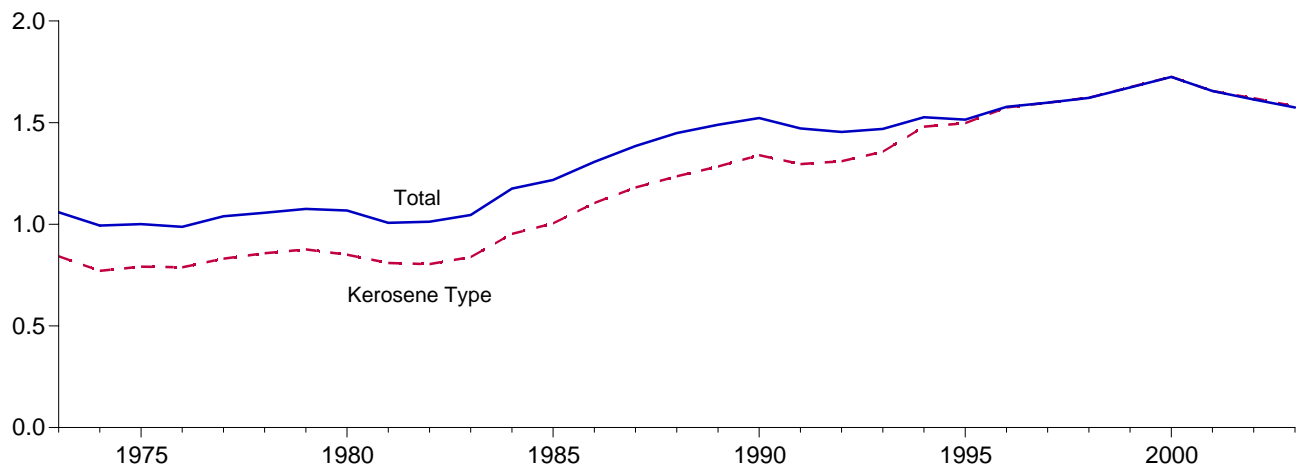
Overview, 1973-2003



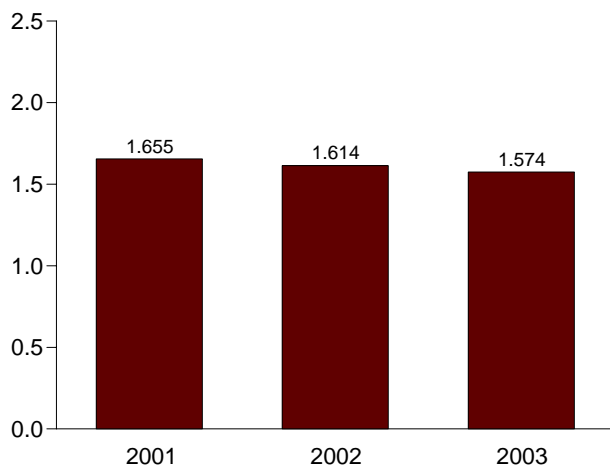
Overview, Monthly



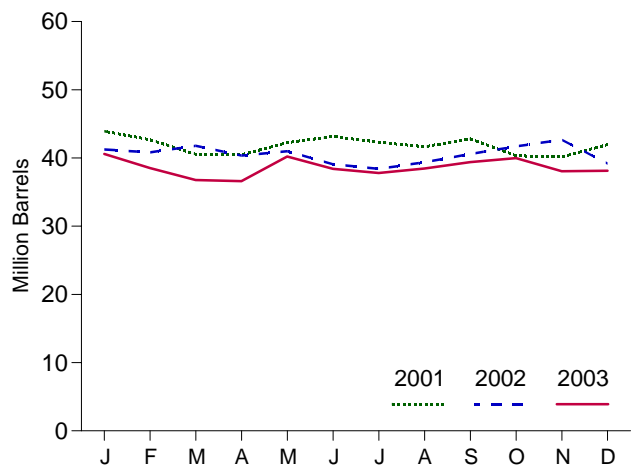
Product Supplied by Type, 1973-2003



Product Supplied, January-December



Stocks, End of Month



Note: Because vertical scales differ, graphs should not be compared.
Web Page: <http://www.eia.doe.gov/emeu/mer/petro.html>.
Source: Table 3.7.

Table 3.7 Jet Fuel Supply and Disposition

	Supply			Disposition				Stocks ^a	
	Production		Imports	Stock Change ^b	Exports	Product Supplied			
	Total	Kerosene Type				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	29	24
1975 Average	871	691	133	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	42	36
1981 Average	968	775	38	-4	2	1,007	809	41	34
1982 Average	978	778	29	-12	6	1,013	804	37	31
1983 Average	1,022	817	29	(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 Average	1,416	1,407	106	-19	26	1,514	1,497	40	39
1996 Average	1,515	1,513	111	(s)	48	1,578	1,575	40	40
1997 Average	1,554	1,554	91	11	35	1,599	1,598	44	44
1998 Average	1,526	1,525	124	2	26	1,622	1,623	45	45
1999 Average	1,565	1,565	128	-11	32	1,673	1,675	41	40
2000 Average	1,606	1,606	162	11	32	1,725	1,725	45	44
2001 January	1,508	1,508	242	-20	27	1,742	1,743	44	44
February	1,497	1,497	230	-44	18	1,753	1,752	43	43
March	1,512	1,512	145	-69	41	1,685	1,685	41	41
April	1,548	1,547	153	-4	17	1,688	1,687	40	40
May	1,620	1,620	175	59	17	1,720	1,722	42	42
June	1,637	1,637	161	30	18	1,750	1,749	43	43
July	1,633	1,633	129	-27	23	1,766	1,763	42	42
August	1,597	1,597	123	-21	24	1,718	1,720	42	42
September	1,420	1,420	166	38	21	1,527	1,525	43	43
October	1,458	1,458	63	-79	31	1,569	1,568	40	40
November	1,398	1,398	104	-6	64	1,443	1,444	40	40
December	1,521	1,521	94	58	51	1,507	1,512	42	42
Average	1,530	1,529	148	-7	29	1,655	1,656	42	42
2002 January	1,477	1,477	99	-23	13	1,587	1,591	41	41
February	1,451	1,451	107	-15	40	1,532	1,532	41	41
March	1,505	1,505	109	31	3	1,581	1,581	42	42
April	1,492	1,491	137	-47	18	1,658	1,674	40	40
May	1,479	1,479	79	20	11	1,527	1,535	41	41
June	1,512	1,512	81	-63	9	1,647	1,656	39	39
July	1,569	1,568	92	-22	2	1,680	1,679	38	38
August	1,539	1,538	112	31	10	1,610	1,616	39	39
September	1,552	1,552	111	40	22	1,601	1,609	41	41
October	1,495	1,495	171	36	17	1,614	1,629	42	42
November	1,543	1,543	117	33	12	1,616	1,615	43	43
December	1,548	1,547	75	-113	30	1,706	1,722	39	39
Average	1,514	1,514	107	-8	15	1,614	1,621	39	39
2003 January	1,495	1,495	94	27	36	1,525	1,524	41	41
February	1,416	1,416	109	-74	19	1,581	1,580	39	38
March	1,422	1,430	107	-56	50	1,535	1,559	37	37
April	1,445	1,445	106	-6	42	1,514	1,522	37	37
May	1,484	1,484	121	117	20	1,469	1,469	40	40
June	1,393	1,393	117	-60	7	1,564	1,564	38	38
July	1,491	1,491	124	-20	20	1,615	1,623	38	38
August	1,551	1,551	127	21	23	1,634	1,650	38	38
September	1,514	1,513	134	31	28	1,589	1,597	39	39
October	1,510	1,510	122	19	36	1,576	1,584	40	40
November	R 1,522	R 1,522	R 44	R -64	R 10	R 1,620	R 1,620	R 38	R 38
December	E 1,605	E 1,605	E 111	E 20	E 24	E 1,672	E 1,672	E 38	E 38
Average	E 1,488	E 1,489	E 110	E -3	E 26	E 1,574	E 1,580	E 38	E 38

^a Stocks are at 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.

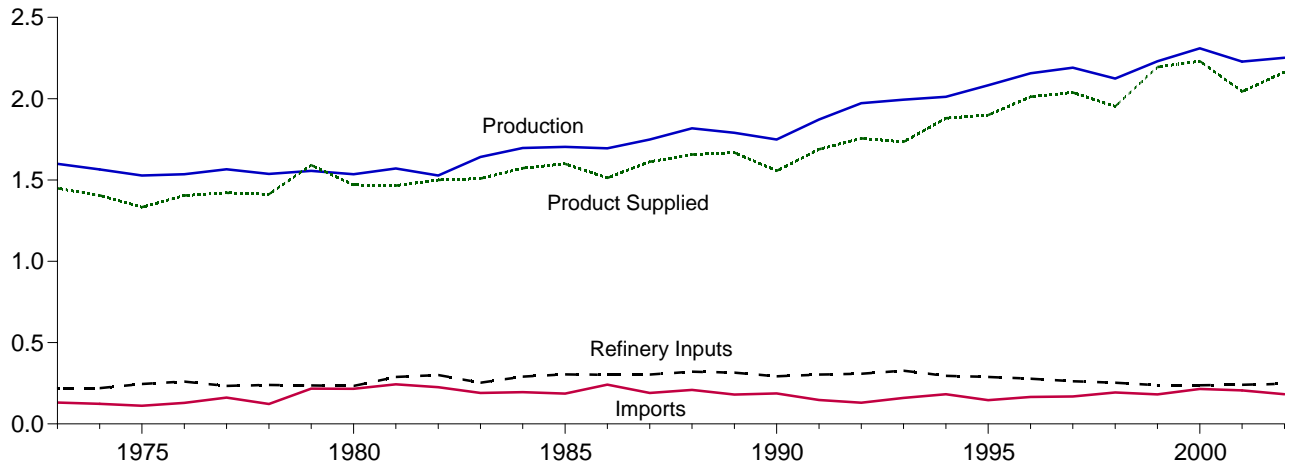
R=Revised. E=Estimate. (s)=Less than +500 barrels per day and greater than -500 barrels per day.

Note: Geographic coverage is the 50 States and the District of Columbia. Web Page: <http://www.eia.doe.gov/emeu/mer/petro.html>.

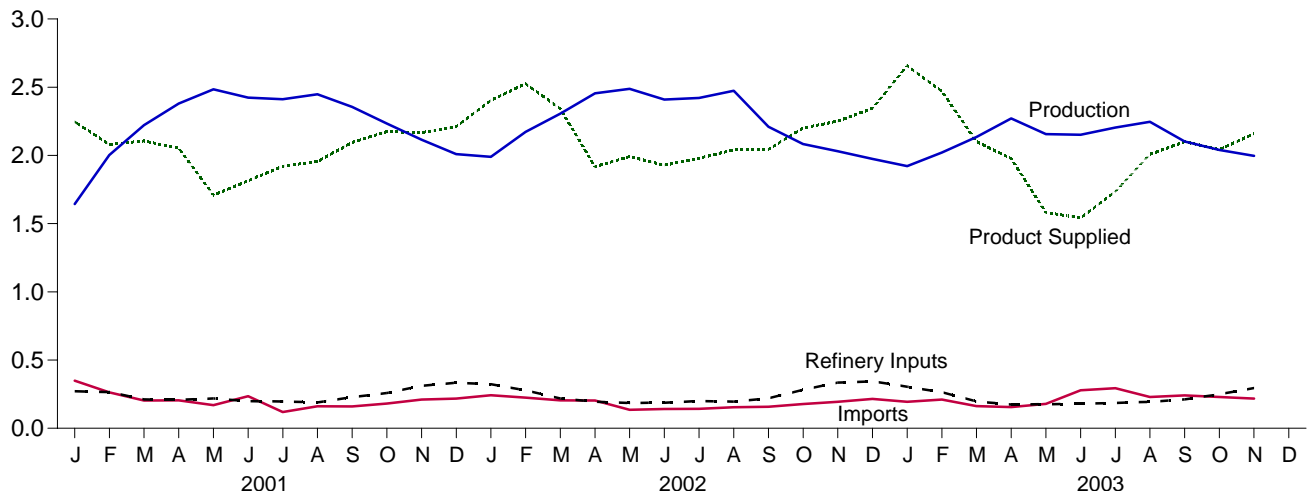
Sources: • 1973-1991: Energy Information Administration (EIA), *Petroleum Supply Annual 1992, Volume 1*, May 1993, Table S7. • 1992 forward: EIA, *Petroleum Supply Monthly*, January 2004, Table S7.

Figure 3.6 Liquefied Petroleum Gases
(Million Barrels per Day, Except as Noted)

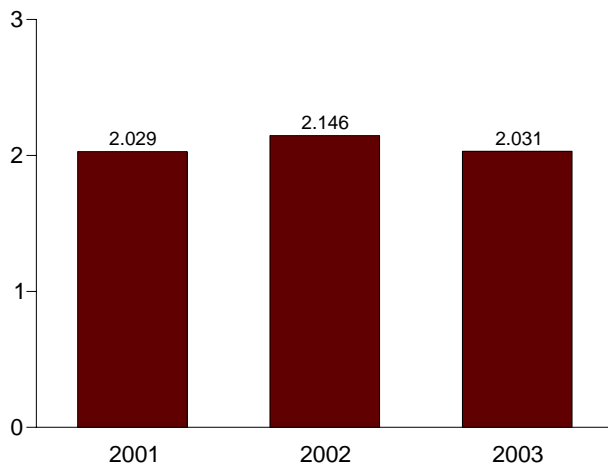
Overview, 1973-2002



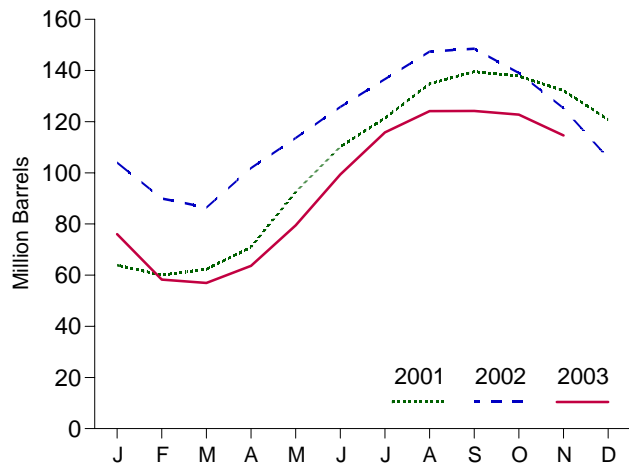
Overview, Monthly



Product Supplied, January-November



Stocks, End of Month



Note: Because vertical scales differ, graphs should not be compared.
Web Page: <http://www.eia.doe.gov/emeu/mer/pepo.html>
Source: Table 3.8.

Table 3.8 Liquefied Petroleum Gases Supply and Disposition

	Supply		Disposition				Stocks ^b
	Total Production	Imports	Stock Change ^a	Refinery Inputs	Exports	Product Supplied	
	Thousand Barrels per Day						
1973 Average	1,600	132	35	220	27	1,449	99
1974 Average	1,565	123	38	220	25	1,406	^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 Average	2,082	146	-17	289	58	1,899	93
1996 Average	2,156	166	-19	278	51	2,012	86
1997 Average	2,190	169	9	263	50	2,038	89
1998 Average	2,124	194	70	253	42	1,952	115
1999 Average	2,230	182	-71	238	50	2,195	89
2000 Average	2,310	215	-19	238	74	2,231	83
2001 January	1,644	349	-601	272	75	2,246	64
February	2,002	263	-140	266	59	2,081	60
March	2,221	203	75	212	33	2,105	62
April	2,380	204	288	209	35	2,053	71
May	2,484	170	696	219	31	1,709	93
June	2,423	235	589	199	56	1,815	110
July	2,412	119	363	196	51	1,920	121
August	2,448	162	432	189	34	1,956	135
September	2,356	160	158	228	35	2,095	140
October	2,234	181	-55	258	37	2,175	138
November	2,115	211	-191	312	37	2,168	132
December	2,009	217	-361	334	43	2,210	121
Average	2,228	206	105	241	44	2,044	121
2002 January	1,990	242	-546	323	52	2,403	104
February	2,173	225	-500	277	96	2,525	90
March	2,306	204	-115	218	64	2,343	86
April	2,455	203	516	194	32	1,916	102
May	2,488	136	379	186	67	1,992	114
June	2,409	141	403	187	31	1,929	126
July	2,421	142	353	199	33	1,979	137
August	2,475	154	347	195	46	2,041	147
September	2,210	158	36	220	67	2,045	149
October	2,083	178	-307	282	85	2,201	139
November	2,030	195	-458	334	98	2,251	125
December	1,974	216	-630	344	131	2,345	106
Average	2,252	183	-42	247	67	2,163	106
2003 January	1,922	194	-959	304	113	2,657	76
February	2,021	210	-634	265	130	2,470	58
March	2,135	162	-43	197	43	2,101	57
April	2,272	156	225	175	51	1,977	64
May	2,157	179	510	176	67	1,582	79
June	2,151	279	663	179	45	1,542	99
July	2,204	294	530	186	47	1,735	116
August	2,247	230	269	194	5	2,009	124
September	2,103	242	2	212	29	2,101	124
October	2,040	230	-47	249	25	2,042	123
November	1,997	217	-271	295	31	2,159	115
11-Month Average	2,114	217	27	221	53	2,031	115
2002 11-Month Average	2,277	179	13	237	61	2,146	125
2001 11-Month Average	2,249	205	148	232	44	2,029	132

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

^b Stocks are at end of period.

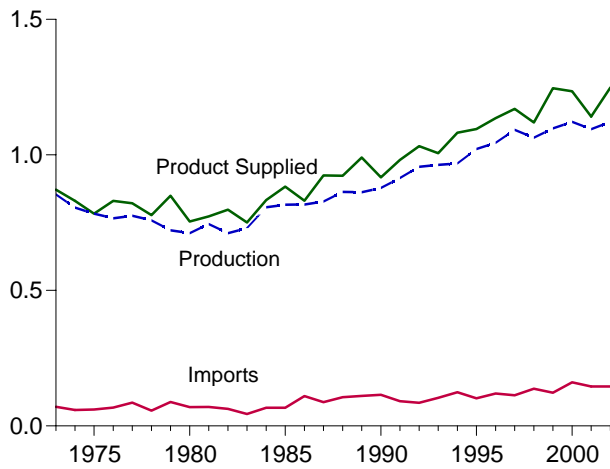
^c See Note 4 at end of section.

^d See Note 6 at end of section.

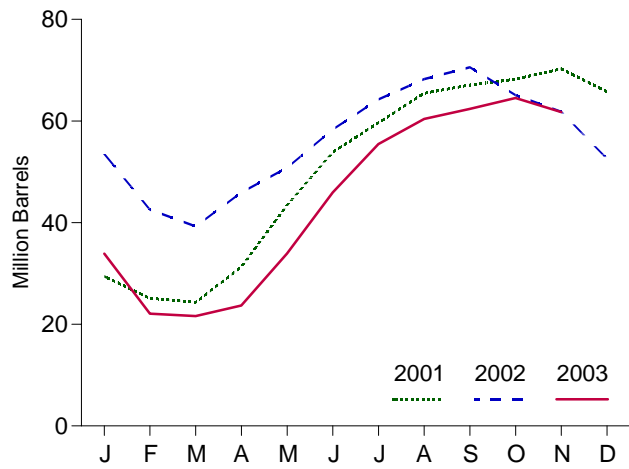
Web Page: <http://www.eia.doe.gov/emeu/mer/petro.html>.
 Sources: • **1973-1991:** Energy Information Administration (EIA), *Petroleum Supply Annual 1992, Volume 1*, May 1993, Table S8. • **1992 forward:** EIA, *Petroleum Supply Monthly*, January 2004, Table S9.

Figure 3.7 Propane and Propylene
(Million Barrels per Day, Except as Noted)

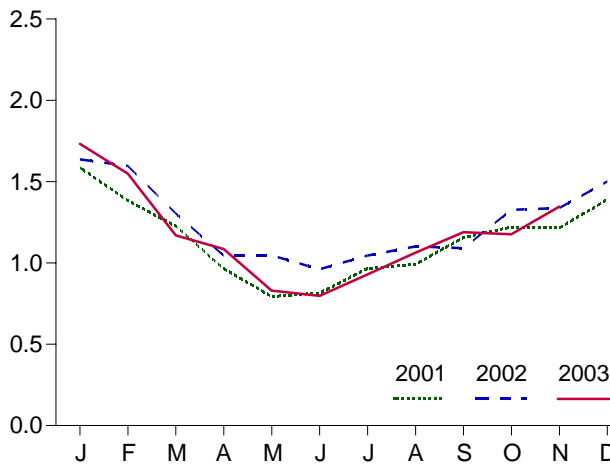
Overview, 1973-2002



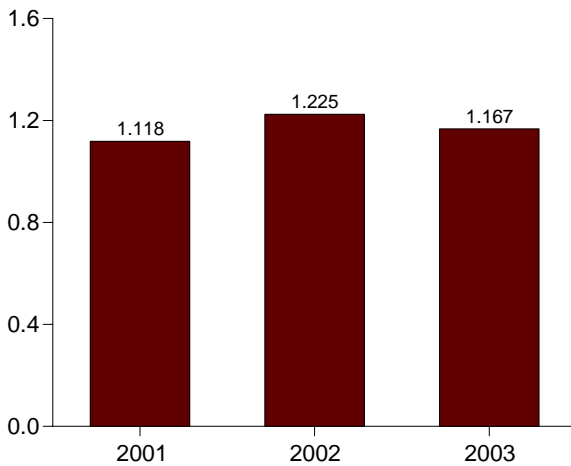
Stocks, End of Month



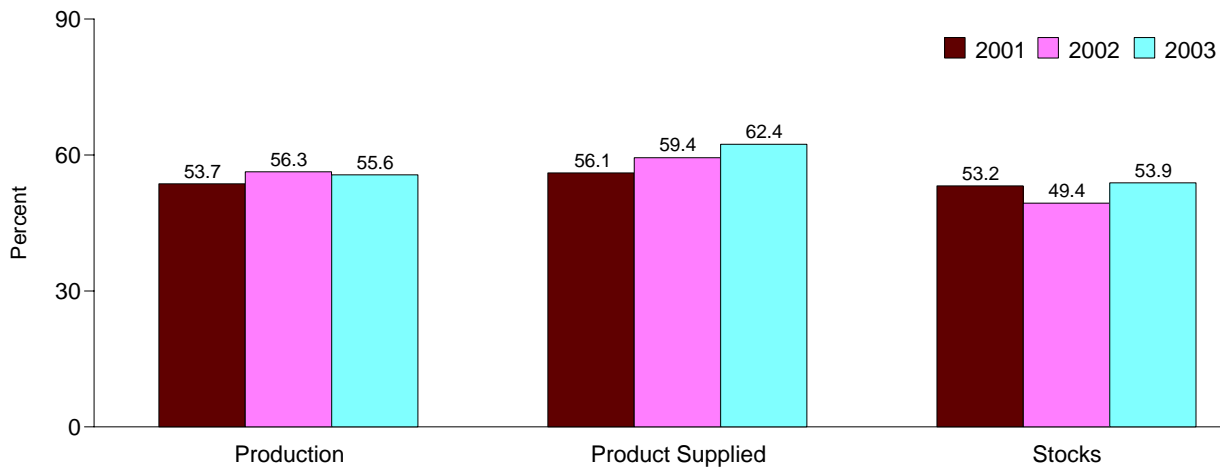
Product Supplied, Monthly



Product Supplied, January-November



Share of Liquefied Petroleum Gases, November



Note: Because vertical scales differ, graphs should not be compared.
Web Page: <http://www.eia.doe.gov/emeu/mer/petro.html>.
Source: Table 3.9 and, for calculation of shares, data prior to rounding.

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

	Supply		Disposition				Stocks ^b
	Total Production	Imports	Stock Change ^a	Refinery Inputs	Exports	Product Supplied	
	Thousand Barrels per Day						
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 Average	1,021	102	-10	0	38	1,096	43
1996 Average	1,044	119	(s)	0	28	1,136	43
1997 Average	1,092	113	3	0	32	1,170	44
1998 Average	1,064	137	56	0	25	1,120	65
1999 Average	1,097	122	-59	0	33	1,246	43
2000 Average	1,122	161	-5	0	53	1,235	41
2001 January	957	312	-379	0	62	1,586	29
February	1,048	222	-155	0	41	1,383	25
March	1,072	151	-25	0	22	1,226	24
April	1,110	105	232	0	18	965	31
May	1,121	80	392	0	15	794	43
June	1,093	103	348	0	32	816	54
July	1,102	92	186	0	42	966	60
August	1,111	95	187	0	27	992	65
September	1,146	92	54	0	27	1,157	67
October	1,138	146	38	0	26	1,220	68
November	1,135	175	68	0	26	1,216	70
December	1,104	176	-145	0	35	1,390	66
Average	1,095	145	67	0	31	1,142	66
2002 January	1,082	201	-396	0	42	1,636	53
February	1,114	179	-391	0	87	1,597	43
March	1,111	147	-106	0	60	1,304	39
April	1,135	157	222	0	25	1,046	46
May	1,159	87	157	0	43	1,046	51
June	1,133	101	252	0	23	960	58
July	1,137	120	190	0	22	1,045	64
August	1,142	116	129	0	28	1,101	68
September	1,091	131	78	0	54	1,091	71
October	1,080	144	-176	0	74	1,327	65
November	1,143	170	-109	0	85	1,337	62
December	1,127	193	-299	0	119	1,501	53
Average	1,121	145	-36	0	55	1,248	53
2003 January	1,063	161	-602	0	95	1,732	34
February	1,068	176	-422	0	116	1,550	22
March	1,061	124	-15	0	31	1,169	22
April	1,080	94	69	0	20	1,086	24
May	1,063	119	331	0	22	829	34
June	1,046	179	400	0	27	798	46
July	1,054	200	307	0	18	929	55
August	1,070	154	159	0	3	1,063	60
September	1,092	182	66	0	19	1,189	62
October	1,088	178	69	0	20	1,176	65
November	1,111	167	-93	0	24	1,347	62
11-Month Average	1,072	158	28	0	35	1,167	62
2002 11-Month Average	1,121	141	-12	0	49	1,225	62
2001 11-Month Average	1,094	143	87	0	31	1,118	70

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

^b Stocks are at 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.

Web Page: <http://www.eia.doe.gov/emeu/mer/petro.html>.

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." • **1981-1991:** EIA, *Petroleum Supply Annual 1992, Volume 1*, May 1993, Table S8. • **1992 forward:** EIA, *Petroleum Supply Monthly*, January 2004, Table S8.

Table 3.10 Other Petroleum Products Supply and Disposition

	Supply		Disposition				Stocks ^b
	Total Production	Imports	Stock Change ^a	Refinery Inputs	Exports	Products Supplied	
	Thousand Barrels per Day						
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 Average	3,031	708	-23	958	348	2,457	206
1996 Average	3,108	879	-11	1,014	376	2,608	202
1997 Average	3,204	945	30	985	402	2,733	213
1998 Average	3,253	888	18	1,002	380	2,741	219
1999 Average	3,211	943	-64	1,061	338	2,819	196
2000 Average	3,154	938	30	991	429	2,642	207
2001 January	2,802	1,266	438	544	483	2,604	221
February	3,045	1,111	551	597	499	2,509	236
March	2,883	1,174	180	902	424	2,550	242
April	2,984	1,126	23	984	451	2,651	242
May	3,120	1,177	-57	1,103	465	2,787	241
June	3,229	1,126	-243	1,388	430	2,780	233
July	3,214	998	-382	1,432	393	2,769	221
August	3,197	1,062	-287	1,162	492	2,893	213
September	3,140	1,094	261	1,048	334	2,591	220
October	3,061	1,038	-236	1,060	473	2,802	213
November	3,107	1,066	119	965	402	2,686	217
December	2,858	910	-75	941	370	2,533	214
Average	3,053	1,095	20	1,013	434	2,681	214
2002 January	2,931	1,079	268	714	441	2,586	223
February	3,005	993	45	1,068	482	2,403	224
March	3,072	1,123	277	955	436	2,526	232
April	3,178	1,097	-53	1,195	472	2,660	231
May	3,140	1,322	-64	1,253	503	2,771	229
June	3,225	1,162	-164	1,204	445	2,903	224
July	3,295	1,246	-100	1,244	420	2,977	221
August	3,312	1,088	-309	1,240	550	2,918	211
September	3,261	1,078	-45	1,131	479	2,774	210
October	3,039	969	-59	1,005	471	2,592	208
November	3,109	1,014	16	1,024	503	2,581	209
December	3,071	844	-307	1,442	547	2,233	199
Average	3,137	1,085	-42	1,123	479	2,662	199
2003 January	3,071	1,095	468	850	526	2,323	213
February	2,959	865	-13	803	464	2,570	213
March	3,177	1,065	337	830	525	2,549	223
April	3,079	1,070	56	930	451	2,712	225
May	3,221	1,267	11	1,205	526	2,747	225
June	3,051	1,482	91	937	478	3,026	228
July	3,233	1,212	-306	1,143	456	3,152	219
August	3,170	1,123	-322	1,184	499	2,932	209
September	3,388	1,131	124	965	537	2,893	212
October	3,172	938	-72	958	510	2,715	210
November	3,172	1,043	54	913	507	2,740	212
11-Month Average	3,155	1,119	39	976	499	2,761	212
2002 11-Month Average	3,143	1,108	-17	1,094	473	2,701	209
2001 11-Month Average	3,071	1,113	29	1,020	440	2,695	217

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

^b Stocks are at 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.

Web Page: <http://www.eia.doe.gov/emeu/mer/petro.html>.

Sources: • 1973-1991: Energy Information Administration (EIA), *Petroleum Supply Annual 1992, Volume 1*, May 1993, Table S9. • 1992 forward: EIA, *Petroleum Supply Monthly*, January 2004, Table S10.

Petroleum

Note 1. Survey Respondents: 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*.

Note 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.

Note 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*.

Note 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: 108 for liquefied petroleum gases, 55 for propane and propylene, and 210 for other petroleum products.

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.

Note 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).

Note 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
3.1	Products Supplied	1982	1,857	1,856

Section 4. Natural Gas

Total dry natural gas production in the United States during October 2003 was forecast as 1.6 trillion cubic feet, 5 percent higher than production during October 2002.

Consumption of natural and supplemental gas in October 2003 was forecast as 1.6 trillion cubic feet, 4 percent lower than the level in October 2002.

Deliveries to residential consumers in October 2003 were forecast as 229 billion cubic feet, 9 percent lower than the previous October's deliveries. Total deliveries to industrial consumers during October 2003 were estimated as 676 billion cubic feet, slightly lower than the previous October's level. The electric power sector's use of natural gas in October 2003 was forecast as 428 billion cubic feet, 3

percent lower than the rate in October 2002.

Net imports of natural gas in October 2003 were forecast as 283 billion cubic feet, 6 percent lower than net imports in the previous October.

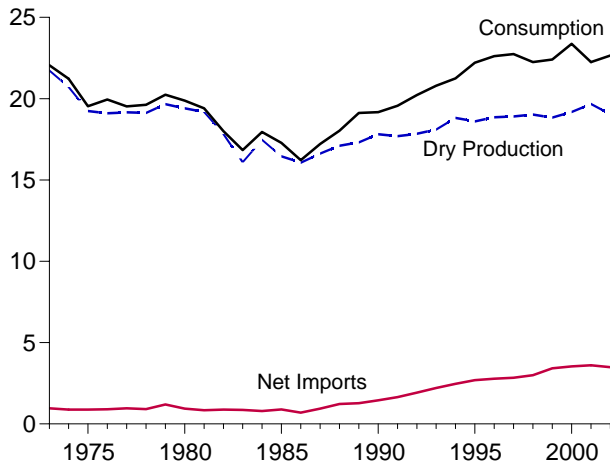
Stocks of working gas¹ in underground natural gas storage reservoirs at the end of October 2003 were forecast as 3,155 billion cubic feet, 1 percent higher than the level of stocks available 1 year earlier.

Net injections into underground storage during October 2003 were forecast as 249 billion cubic feet, 196 percent more than the amount of net injections during October 2002.

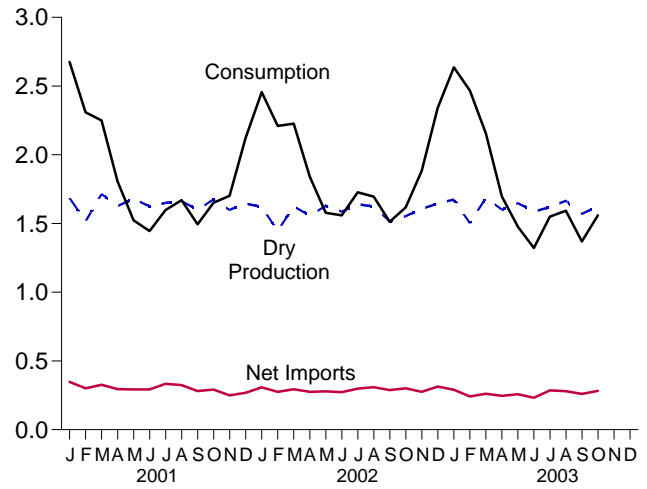
¹Gas available for withdrawal.

Figure 4.1 Natural Gas
(Trillion Cubic Feet)

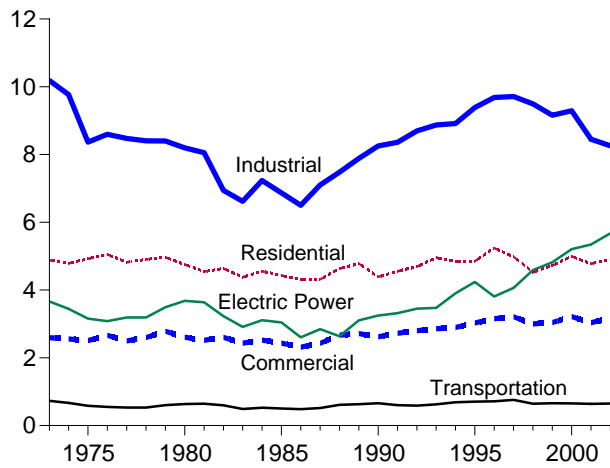
Overview, 1973-2002



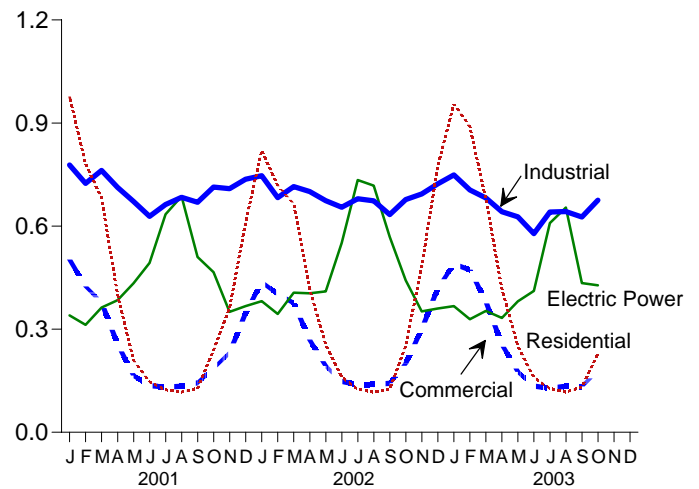
Overview, Monthly



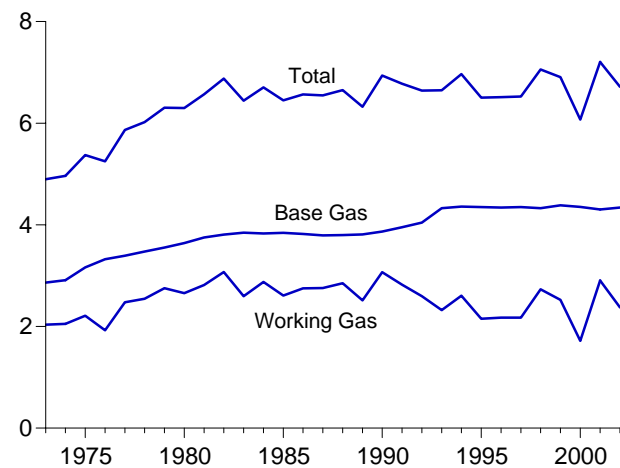
Consumption by Sector, 1973-2002



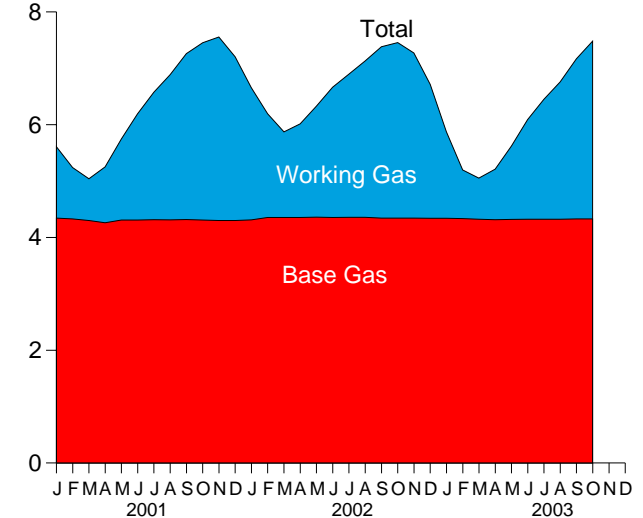
Consumption by Sector, Monthly



Underground Storage, End of Year, 1973-2002



Underground Storage, End of Month



Note: Because vertical scales differ, graphs should not be compared.
Web Page: <http://www.eia.doe.gov/emeu/mer/natgas.html>.
Sources: Tables 4.1, 4.4, and 4.5.

Table 4.1 Natural Gas Overview
(Billion Cubic Feet)

	Dry Gas Production ^a	Supplemental Gaseous Fuels ^b	Imports	Exports	Withdrawals From Storage ^c	Additions to Storage ^c	Balancing Item ^d	Consumption ^e
1973 Total	f21,731	NA	1,033	77	1,533	1,974	-196	22,049
1974 Total	f20,713	NA	959	77	1,701	1,784	-289	21,223
1975 Total	f19,236	NA	953	73	1,760	2,104	-235	19,538
1976 Total	f19,098	NA	964	65	1,921	1,756	-216	19,946
1977 Total	f19,163	NA	1,011	56	1,750	2,307	-41	19,521
1978 Total	f19,122	NA	966	53	2,158	2,278	-287	19,627
1979 Total	f19,663	NA	1,253	56	2,047	2,295	-372	20,241
1980 Total	19,403	155	985	49	1,972	1,949	-640	19,877
1981 Total	19,181	176	904	59	1,930	2,228	-500	19,404
1982 Total	17,820	145	933	52	2,164	2,472	d,-537	18,001
1983 Total	16,094	132	918	55	2,270	1,822	d,-703	16,835
1984 Total	17,466	110	843	55	2,098	2,295	-217	17,951
1985 Total	16,454	126	950	55	2,397	2,163	-428	17,281
1986 Total	16,059	113	750	61	1,837	1,984	-493	16,221
1987 Total	16,621	101	993	54	1,905	1,911	-444	17,211
1988 Total	17,103	101	1,294	74	2,270	2,211	-453	18,030
1989 Total	17,311	107	1,382	107	2,854	2,528	101	9 19,119
1990 Total	17,810	123	1,532	86	1,986	2,499	307	9 19,174
1991 Total	17,698	113	1,773	129	2,752	2,672	27	9 19,562
1992 Total	17,840	118	2,138	216	2,772	2,599	176	9 20,228
1993 Total	18,095	119	2,350	140	2,799	2,835	401	20,790
1994 Total	18,821	111	2,624	162	2,579	2,865	139	21,247
1995 Total	18,599	110	2,841	154	3,025	2,610	396	22,207
1996 Total	18,854	109	2,937	153	2,981	2,979	860	22,610
1997 Total	18,902	103	2,994	157	2,894	2,870	871	22,737
1998 Total	19,024	102	3,152	159	2,432	2,961	657	22,246
1999 Total	18,832	98	3,586	163	2,808	2,636	-119	22,405
2000 Total	19,182	90	3,782	244	3,550	2,721	-270	23,368
2001 January	1,685	9	373	26	600	92	126	2,676
February	1,515	7	328	27	422	74	138	2,310
March	1,714	8	358	32	303	116	14	2,250
April	1,626	6	319	24	70	354	163	1,807
May	1,681	6	322	29	41	528	31	1,524
June	1,624	6	317	25	49	498	-29	1,445
July	1,650	7	365	31	66	458	-1	1,598
August	1,661	6	353	29	79	392	-10	1,670
September	1,602	7	315	34	41	420	-17	1,494
October	1,674	7	326	34	93	286	-129	1,651
November	1,599	8	291	42	138	212	-81	1,701
December	1,645	8	310	42	441	80	-160	2,122
Total	19,676	86	3,977	373	2,344	3,509	45	22,246
2002 January	E 1,620	E 8	343	34	605	59	R -26	R 2,456
February	E 1,447	E 7	305	30	517	55	R 20	R 2,210
March	E 1,625	E 8	332	38	425	105	R -20	R 2,227
April	E 1,558	E 6	315	39	111	237	R 129	R 1,842
May	E 1,628	E 6	319	39	58	381	-11	1,578
June	E 1,586	E 5	317	45	56	395	R 35	R 1,560
July	E 1,641	E 7	344	45	101	341	R 20	R 1,727
August	E 1,624	E 6	355	47	89	322	R -10	R 1,696
September	E 1,513	E 6	335	47	72	364	R -2	R 1,513
October	E 1,554	E 7	343	42	145	229	R -159	R 1,618
November	E 1,608	E 7	330	55	322	124	R -205	R 1,883
December	E 1,644	E 8	369	55	624	66	R -182	R 2,342
Total	E 19,047	E 80	4,008	516	3,126	2,679	R -412	R 22,653
2003 January	E 1,675	E 8	346	56	886	44	-178	2,636
February	E 1,502	E 4	297	56	723	48	44	2,467
March	E 1,687	E 7	313	52	305	169	64	2,155
April	E 1,601	E 6	294	49	118	277	2	1,697
May	E 1,648	E 7	305	48	41	453	-24	1,477
June	E 1,587	E 6	283	51	36	506	-34	1,321
July	E 1,619	E 7	344	E 59	64	426	(s)	1,550
August	E 1,665	E 7	336	E 56	62	371	-51	1,593
September	RF 1,569	F 6	323	E 63	31	441	R -56	R 1,369
October	F 1,627	F 6	F 343	F 60	F 85	F 334	-107	F 1,560
10-Month Total	E 16,182	E 64	E 3,186	E 549	E 2,350	E 3,067	-340	E 17,825
2002 10-Month Total	E 15,795	E 64	3,308	407	2,180	2,488	-25	18,427
2001 10-Month Total	16,433	70	3,376	290	1,765	3,218	286	18,423

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

^b See Note 1 at end of section.

^c Data for 1980-2001 cover underground storage and liquefied natural gas storage. All other time periods cover underground storage only. See Note 2 at end of section.

^d See Note 3 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).

^e See Note 4 at end of section.

^f May include unknown quantities of nonhydrocarbon gases.

^g For 1989-1992, a small amount of consumption at independent power producers may be counted in both "Other Industrial" and "Electric Power Sector" on Table 4.4. See Note 5 at end of section.

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

Web Page: <http://www.eia.doe.gov/emeu/mer/natgas.html>.

Sources: • **Dry Gas Production:** Table 4.2. • **Supplemental Gaseous Fuels: 1980-1996:** Energy Information Administration (EIA), *Natural Gas Annual*, annual reports. • **1997 forward:** EIA, *Natural Gas Monthly*, November 2003, Table 2. • **Imports and Exports:** Table 4.3. • **Withdrawals From Storage and Additions to Storage: 1973-1996:** EIA, *Natural Gas Annual 2000*, Table 94. • **1997-2001:** EIA, *Natural Gas Annual 2001*, Table 1. • **2002 forward:** Table 4.5. • **Consumption:** Table 4.4. • **Balancing Item:** Calculated as the sum of consumption, exports, and additions to storage minus dry gas production, supplemental gaseous fuels, imports, and withdrawals from storage. • **Forecast values:** EIA, Short-Term Integrated Forecasting System. See Note 10 at end of section.

Table 4.2 Natural Gas Production
(Billion Cubic Feet)

	Gross Withdrawals ^a	Repressuring ^b	Nonhydrocarbon Gases Removed ^c	Vented and Flared ^d	Marketed Production ^e	Extraction Loss ^f	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 Total	23,744	3,565	388	284	19,506	908	18,599
1996 Total	24,114	3,511	518	272	19,812	958	18,854
1997 Total	24,213	3,492	599	256	19,866	964	18,902
1998 Total	24,108	3,427	617	103	19,961	938	19,024
1999 Total	23,823	3,293	615	110	19,805	973	18,832
2000 Total	24,174	3,380	505	91	20,198	1,016	19,182
2001 January	2,101	289	39	7	1,766	82	1,685
February	1,912	277	38	8	1,588	73	1,515
March	2,139	294	42	7	1,797	83	1,714
April	2,023	271	39	8	1,705	79	1,626
May	2,061	253	39	7	1,762	81	1,681
June	2,003	258	35	6	1,703	79	1,624
July	2,035	253	42	9	1,730	80	1,650
August	2,053	264	41	7	1,742	81	1,661
September	1,992	267	38	7	1,679	78	1,602
October	2,088	288	36	7	1,755	81	1,674
November	2,004	285	35	7	1,676	78	1,599
December	2,067	297	39	6	1,725	80	1,645
Total	24,476	3,296	464	86	20,630	954	19,676
2002 January	^E 2,066	^E 325	^E 35	^E 7	^E 1,698	^E 78	^E 1,620
February	^E 1,857	^E 306	^E 28	^E 6	^E 1,517	^E 70	^E 1,447
March	^E 2,077	^E 335	^E 31	^E 7	^E 1,704	^E 79	^E 1,625
April	^E 1,985	^E 314	^E 30	^E 7	^E 1,634	^E 75	^E 1,558
May	^E 2,063	^E 318	^E 32	^E 7	^E 1,706	^E 79	^E 1,628
June	^E 2,002	^E 302	^E 31	^E 7	^E 1,663	^E 77	^E 1,586
July	^E 2,040	^E 280	^E 32	^E 7	^E 1,720	^E 79	^E 1,641
August	^E 2,039	^E 298	^E 31	^E 7	^E 1,702	^E 79	^E 1,624
September	^E 1,901	^E 278	^E 30	^E 7	^E 1,586	^E 73	^E 1,513
October	^E 1,985	^E 317	^E 32	^E 7	^E 1,629	^E 75	^E 1,554
November	^E 2,010	^E 285	^E 32	^E 7	^E 1,685	^E 78	^E 1,608
December	^E 2,104	^E 340	^E 33	^E 7	^E 1,724	^E 80	^E 1,644
Total	^E 24,130	^E 3,699	^E 378	^E 84	^E 19,969	^E 922	^E 19,047
2003 January	^E 2,128	^E 332	^E 33	^E 7	^E 1,756	^E 81	^E 1,675
February	^E 1,920	^E 309	^E 29	^E 6	^E 1,575	^E 73	^E 1,502
March	^E 2,137	^E 329	^E 32	^E 7	^E 1,768	^E 82	^E 1,687
April	^E 2,021	^E 306	^E 30	^E 7	^E 1,678	^E 78	^E 1,601
May	^E 2,066	^E 301	^E 30	^E 7	^E 1,728	^E 80	^E 1,648
June	^E 1,997	^E 296	^E 31	^E 6	^E 1,664	^E 77	^E 1,587
July	^E 2,022	^E 286	^E 32	^E 6	^E 1,698	^E 78	^E 1,619
August	^E 2,087	^E 303	^E 32	^E 6	^E 1,746	^E 81	^E 1,665
September	^{RF} 2,004	^{RF} 292	^{RF} 41	^F 9	^{RF} 1,662	^{RF} 93	^{RF} 1,569
October	^F 2,074	^F 303	^F 43	^F 9	^F 1,720	^F 93	^F 1,627
10-Month Total	^E 20,455	^E 3,056	^E 333	^E 70	^E 16,997	^E 815	^E 16,182
2002 10-Month Total	^E 20,016	^E 3,073	^E 313	^E 70	^E 16,559	^E 765	^E 15,795
2001 10-Month Total	20,405	2,714	389	72	17,229	797	16,433

^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 6 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 7 at end of section.
^f See Note 8 at end of section.

^g "Marketed Production (Wet)" minus "Extraction Loss."
^h May include unknown quantities of nonhydrocarbon gases.
 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. Web Page: <http://www.eia.doe.gov/emeu/mer/natgas.html>.
 Sources: • 1973-1996: Energy Information Administration (EIA), *Natural Gas Annual 2000*, Table 93. • 1997 forward: EIA, *Natural Gas Monthly*, November 2003, Table 1. • Forecast values: EIA, Short-Term Integrated Forecasting System. See Note 10 at end of section.

Table 4.3 Natural Gas Trade by Country
(Billion Cubic Feet)

	Imports								Exports			
	Algeria ^a	Australia ^a	Canada ^b	Mexico ^b	Qatar ^a	Trinidad and Tobago ^a	Other ^c	Total	Canada ^b	Japan ^a	Mexico ^b	Total
1973 Total	3	0	1,028	2	0	0	0	1,033	15	48	14	77
1974 Total	0	0	959	(s)	0	0	0	959	13	50	13	77
1975 Total	5	0	948	0	0	0	0	953	10	53	9	73
1976 Total	10	0	954	0	0	0	0	964	8	50	7	65
1977 Total	11	0	997	2	0	0	0	1,011	(s)	52	4	56
1978 Total	84	0	881	0	0	0	0	966	(s)	48	4	53
1979 Total	253	0	1,001	0	0	0	0	1,253	(s)	51	4	56
1980 Total	86	0	797	102	0	0	0	985	(s)	45	4	49
1981 Total	37	0	762	105	0	0	(s)	904	(s)	56	3	59
1982 Total	55	0	783	95	0	0	(s)	933	(s)	50	2	52
1983 Total	131	0	712	75	0	0	(s)	918	(s)	53	2	55
1984 Total	36	0	755	52	0	0	(s)	843	(s)	53	2	55
1985 Total	24	0	926	0	0	0	0	950	(s)	53	2	55
1986 Total	0	0	749	0	0	0	2	750	9	50	2	61
1987 Total	0	0	993	0	0	0	0	993	3	49	2	54
1988 Total	17	0	1,276	0	0	0	0	1,294	20	52	2	74
1989 Total	42	0	1,339	0	0	0	0	1,382	38	51	17	107
1990 Total	84	0	1,448	0	0	0	0	1,532	17	53	16	86
1991 Total	64	0	1,710	0	0	0	0	1,775	15	54	60	129
1992 Total	43	0	2,094	0	0	0	0	2,138	68	53	96	216
1993 Total	82	0	2,267	2	0	0	0	2,350	45	56	40	140
1994 Total	51	0	2,566	7	0	0	0	2,624	53	63	47	162
1995 Total	18	0	2,816	7	0	0	0	2,841	28	65	61	154
1996 Total	35	0	2,883	14	0	0	5	2,937	52	68	34	153
1997 Total	66	10	2,899	17	0	0	2	2,994	56	62	38	157
1998 Total	69	12	3,052	15	0	0	5	3,152	40	66	53	159
1999 Total	76	12	3,368	55	20	51	5	3,586	39	64	61	163
2000 Total	47	6	3,544	12	46	99	28	3,782	73	66	106	244
2001 January	5	0	352	2	0	11	2	373	12	6	8	26
February	8	0	305	1	0	7	8	328	15	4	8	27
March	8	0	333	1	2	11	3	358	19	6	7	32
April	5	0	294	2	2	8	7	319	13	6	5	24
May	8	0	295	(s)	5	10	5	322	13	6	10	29
June	4	0	291	0	3	10	9	317	10	4	11	25
July	8	1	339	0	5	7	5	365	10	6	15	31
August	5	1	334	0	0	8	5	353	8	6	16	29
September	5	0	293	0	5	5	7	315	10	6	18	34
October	2	0	314	0	0	9	0	326	11	8	16	34
November	3	0	283	(s)	0	5	0	291	21	6	16	42
December	5	0	294	3	0	8	0	310	25	6	11	42
Total	65	2	3,729	10	23	98	50	3,977	167	66	141	373
2002 January	3	0	334	1	0	5	0	343	16	6	13	34
February	0	0	297	1	0	8	0	305	16	4	11	30
March	0	0	322	0	0	10	0	332	14	6	18	38
April	2	0	297	0	5	10	0	315	13	7	19	39
May	7	0	291	0	6	10	5	319	15	2	23	39
June	5	0	292	0	14	7	0	317	14	6	25	45
July	5	0	323	0	5	11	0	344	12	6	28	45
August	0	0	331	0	3	16	6	355	12	6	29	47
September	0	0	318	0	3	14	0	335	13	6	28	47
October	0	0	315	0	0	22	5	343	10	6	26	42
November	3	0	308	0	0	19	0	330	28	6	21	55
December	3	0	349	0	0	18	0	369	26	6	23	55
Total	27	0	3,777	2	35	151	16	4,008	189	63	263	516
2003 January	0	0	322	0	0	23	0	346	23	4	28	56
February	0	0	276	0	0	21	0	297	25	6	25	56
March	3	0	282	0	2	26	0	313	29	6	17	52
April	11	0	262	0	0	19	3	294	23	6	20	49
May	4	0	260	0	0	30	11	305	15	4	29	48
June	3	0	235	0	0	34	11	283	18	3	30	51
July	5	0	283	0	3	45	8	344	22	7	E 30	E 59
August	3	0	287	0	0	35	11	336	21	5	E 30	E 56
September	8	0	269	0	6	29	11	323	27	5	E 30	E 63
October	NA	NA	NA	NA	NA	NA	NA	F 343	NA	NA	NA	F 60
10-Month Total	NA	NA	NA	NA	NA	NA	NA	E 3,186	NA	NA	NA	E 549
2002 10-Month Total	21	0	3,120	2	35	114	16	3,308	136	52	219	407
2001 10-Month Total	57	2	3,152	7	23	85	50	3,376	121	55	115	290

^a As liquefied natural gas.

^b By pipeline, except for very small amounts of liquefied natural gas imported from Canada in 1973, 1977, and 1981 and exported to Mexico beginning in 1998. See Note 9 at end of section.

^c Indonesia 1986 and 2000; the United Arab Emirates 1996-2000; Malaysia 1999 and 2002; Nigeria 2000 forward; Oman 2000-2002; and Brunei 2002.

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

Notes: • See Note 9 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.

Web Page: <http://www.eia.doe.gov/emeu/mer/natgas.html>.

Sources: • 1973-1996: Energy Information Administration (EIA), Form FPC-14, "Annual Report for Importers and Exporters of Natural Gas."
• 1997-September 2003: EIA, *Natural Gas Monthly*, November 2003, Tables 5 and 6; and Department of Energy, Office of Fossil Energy, "Natural Gas Imports and Exports." See Note 10 at end of section. • Forecast values: EIA, Short-Term Integrated Forecasting System. See Note 10 at end of section.

Table 4.4 Natural Gas Consumption by Sector
(Billion Cubic Feet)

	End-Use Sectors										Electric Power Sector ^{e,f}	Total
	Residential	Commercial ^a	Lease and Plant Fuel	Industrial			Transportation					
				Other Industrial		Total	Pipeline Fuel ^d	Vehicle Fuel	Total			
				CHP ^b	Non-CHP ^c					Total		
1973 Total	4,879	2,597	1,496	(g)	8,689	8,689	10,185	728	NA	728	3,660	22,049
1974 Total	4,786	2,556	1,477	(g)	8,292	8,292	9,769	669	NA	669	3,443	21,223
1975 Total	4,924	2,508	1,396	(g)	6,968	6,968	8,365	583	NA	583	3,158	19,538
1976 Total	5,051	2,668	1,634	(g)	6,964	6,964	8,598	548	NA	548	3,081	19,946
1977 Total	4,821	2,501	1,659	(g)	6,815	6,815	8,474	533	NA	533	3,191	19,521
1978 Total	4,903	2,601	1,648	(g)	6,757	6,757	8,405	530	NA	530	3,188	19,627
1979 Total	4,965	2,786	1,499	(g)	6,899	6,899	8,398	601	NA	601	3,491	20,241
1980 Total	4,752	2,611	1,026	(g)	7,172	7,172	8,198	635	NA	635	3,682	19,877
1981 Total	4,546	2,520	928	(g)	7,128	7,128	8,055	642	NA	642	3,640	19,404
1982 Total	4,633	2,606	1,109	(g)	5,831	5,831	6,941	596	NA	596	3,226	18,001
1983 Total	4,381	2,433	978	(g)	5,643	5,643	6,621	490	NA	490	2,911	16,835
1984 Total	4,555	2,524	1,077	(g)	6,154	6,154	7,231	529	NA	529	3,111	17,951
1985 Total	4,433	2,432	966	(g)	5,901	5,901	6,867	504	NA	504	3,044	17,281
1986 Total	4,314	2,318	923	(g)	5,579	5,579	6,502	485	NA	485	2,602	16,221
1987 Total	4,315	2,430	1,149	(g)	5,953	5,953	7,103	519	NA	519	2,844	17,211
1988 Total	4,630	2,670	1,096	(g)	6,383	6,383	7,479	614	NA	614	2,636	18,030
1989 Total	4,781	2,718	1,070	914	5,903	h 6,816	7,886	629	NA	629	f,h 3,105	h 19,119
1990 Total	4,391	2,623	1,236	1,055	5,963	h 7,018	8,255	660	(s)	660	h 3,245	h 19,174
1991 Total	4,556	2,729	1,129	1,061	6,170	h 7,231	8,360	601	(s)	602	h 3,316	h 19,562
1992 Total	4,690	2,803	1,171	1,108	6,419	h 7,527	8,698	588	2	590	h 3,448	h 20,228
1993 Total	4,956	2,862	1,172	1,125	6,575	7,700	8,872	624	3	627	3,473	20,790
1994 Total	4,848	2,895	1,124	1,178	6,611	7,790	8,913	685	3	689	3,903	21,247
1995 Total	4,850	3,031	1,220	1,260	6,904	8,164	9,384	700	5	705	4,237	22,207
1996 Total	5,241	3,158	1,250	1,289	7,146	8,435	9,685	711	6	718	3,807	22,610
1997 Total	4,984	3,215	1,203	1,282	7,229	8,511	9,714	751	8	760	4,065	22,737
1998 Total	4,520	2,999	1,173	1,355	6,965	8,320	9,493	635	9	645	4,588	22,246
1999 Total	4,726	3,045	1,079	1,401	6,678	8,079	9,158	645	12	657	4,820	22,405
2000 Total	4,996	3,218	1,151	1,386	6,757	8,142	9,293	642	13	655	5,206	23,368
2001 January	977	503	93	111	573	684	778	76	E 1	77	340	2,676
February	781	425	85	98	541	640	724	66	E 1	67	313	2,310
March	682	378	95	108	559	667	762	64	E 1	65	363	2,250
April	401	257	90	101	522	623	713	51	E 1	52	384	1,807
May	209	165	92	103	476	579	672	42	E 1	43	434	1,524
June	147	136	89	105	434	539	628	40	E 1	41	493	1,445
July	124	131	91	114	458	572	663	44	E 1	46	634	1,598
August	117	134	92	119	474	592	684	47	E 1	48	687	1,670
September	128	144	89	112	468	581	669	41	E 1	43	510	1,494
October	239	186	93	114	506	621	713	46	E 1	47	466	1,651
November	361	232	89	109	511	620	709	48	E 1	49	351	1,701
December	610	347	92	116	529	645	736	60	E 1	61	367	2,122
Total	4,776	3,037	1,089	1,310	6,053	7,363	8,452	624	15	638	5,342	22,246
2002 January	820	437	E 90	R 114	R 543	657	747	69	E 1	70	R 381	R 2,456
February	718	403	E 80	R 100	R 503	603	683	62	E 1	63	R 344	R 2,210
March	665	376	E 90	R 107	R 518	625	715	62	E 1	64	R 407	R 2,227
April	416	268	E 86	R 97	R 517	615	701	52	E 1	53	R 404	R 1,842
May	255	193	E 90	R 107	R 477	584	674	44	E 1	46	R 410	R 1,578
June	161	148	E 88	R 102	R 465	567	655	44	E 1	45	R 551	R 1,560
July	125	139	E 91	R 111	R 478	589	680	48	E 1	50	R 734	R 1,734
August	117	139	E 90	R 108	R 476	584	673	48	E 1	49	R 718	R 1,696
September	124	143	E 84	R 101	R 449	550	634	42	E 1	44	R 569	R 1,513
October	251	201	E 86	R 97	R 494	591	677	45	E 1	47	R 442	R 1,618
November	484	301	E 89	R 97	R 507	605	694	53	E 1	54	R 352	R 1,883
December	773	419	E 91	R 98	R 534	632	723	66	E 1	67	R 360	R 2,342
Total	4,909	3,166	E 1,053	R 1,240	R 5,963	7,203	8,255	635	E 15	650	R 5,672	R 22,653
2003 January	955	490	E 93	106	550	656	749	74	E 1	75	367	2,636
February	889	473	E 83	93	529	622	705	69	E 1	70	329	2,467
March	678	380	E 93	98	491	589	682	60	E 1	62	353	2,155
April	417	256	E 88	87	466	553	642	48	E 1	49	333	1,697
May	250	176	E 91	85	451	536	627	41	E 1	43	381	1,477
June	159	135	E 88	93	398	490	578	37	E 1	38	411	1,321
July	127	128	E 89	99	453	551	641	43	E 1	45	609	1,550
August	117	134	E 92	104	446	550	642	45	E 1	46	654	1,593
September	RF 131	RF 133	F 87	R 83	R 457	RF 540	RE 627	RF 42	E 1	RE 43	R 434	R 1,369
October	F 229	F 181	F 91	F 93	F 492	F 585	F 676	F 46	E 1	E 47	F 428	F 1,560
10-Month Total	E 3,955	E 2,485	E 895	E 940	E 4,733	E 5,673	E 6,568	E 506	E 13	E 519	E 4,299	E 17,825
2002 10-Month Total	3,653	2,446	E 873	1,045	4,921	5,966	6,839	517	E 12	529	4,960	18,427
2001 10-Month Total	3,805	2,459	908	1,085	5,013	6,098	7,007	517	E 12	529	4,625	18,423

^a All commercial sector fuel use, including that at commercial combined-heat-and-power (CHP) and commercial electricity-only plants. See note at end of Section 7. See Table 7.3c for CHP fuel use.

^b Industrial combined-heat-and-power (CHP) and a small number of industrial electricity-only plants. See note at end of Section 7.

^c All industrial sector fuel use other than that in "Lease and Plant Fuel" and "CHP."

^d Natural gas consumed in the operation of pipelines, primarily in compressors.

^e The electric power sector comprises electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public.

^f Through 1988, data are for consumption at electric utilities only. Beginning in 1989, data

also include consumption at independent power producers.

^g Included in "Non-CHP."

^h For 1989-1992, a small amount of consumption at independent power producers may be counted in both "Other Industrial" and "Electric Power Sector." See Note 5 at end of section.

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

Web Page: <http://www.eia.doe.gov/emeu/mer/natgas.html>.

Sources: See end of section.

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 ^b	Injections ^b	Net ^c
1973 Total	2,864	2,034	4,898	305	17.6	1,533	1,974	-441
1974 Total	2,912	2,050	4,962	16	.8	1,701	1,784	-83
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	-305
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 Total	4,349	2,153	6,503	-453	-17.4	2,974	2,566	408
1996 Total	4,341	2,173	6,513	19	.9	2,911	2,906	6
1997 Total	4,350	2,175	6,525	2	.1	2,824	2,800	24
1998 Total	4,326	2,730	7,056	554	25.5	2,379	2,905	-526
1999 Total	4,383	2,523	6,906	-207	-7.6	2,772	2,598	174
2000 Total	4,352	1,719	6,071	-806	-31.9	3,498	2,684	814
2001 January	4,344	1,265	5,609	-495	-28.1	588	92	496
February	4,328	912	5,241	-391	-30.0	414	74	339
March	4,300	742	5,042	-412	-35.7	298	116	183
April	4,261	992	5,253	-210	-17.5	70	349	-279
May	4,309	1,440	5,749	7	.5	41	520	-479
June	4,310	1,882	6,193	165	9.6	49	490	-441
July	4,315	2,261	6,576	258	12.9	66	451	-385
August	4,313	2,576	6,889	377	17.1	79	386	-307
September	4,318	2,944	7,262	450	18.0	41	413	-372
October	4,310	3,144	7,454	412	15.1	93	282	-190
November	4,301	3,254	7,555	812	33.2	138	210	-73
December	4,301	2,904	7,204	1,185	68.9	432	80	352
Total	4,301	2,904	7,204	1,185	68.9	2,309	3,464	-1,156
2002 January	4,313	2,344	6,657	1,078	85.2	605	59	546
February	4,356	1,838	6,194	925	101.4	517	55	462
March	4,355	1,518	5,873	776	104.7	425	105	320
April	4,355	1,659	6,014	666	67.1	111	237	-126
May	4,361	1,968	6,329	528	36.7	58	381	-323
June	4,355	2,308	6,663	426	22.6	56	395	-339
July	4,358	2,539	6,896	278	12.3	101	341	-239
August	4,357	2,773	7,130	198	7.7	89	322	-234
September	4,342	3,042	7,384	97	3.3	72	364	-292
October	4,342	3,116	7,458	-28	-9	145	229	-84
November	4,344	2,929	7,273	-325	-10.0	322	124	198
December	4,340	2,375	6,715	-528	-18.2	624	66	558
Total	4,340	2,375	6,715	-528	-18.2	3,126	2,679	447
2003 January	4,342	1,534	5,876	-810	-34.5	886	44	841
February	4,334	864	5,198	-974	-53.0	723	48	676
March	4,324	730	5,054	-788	-51.9	305	169	136
April	4,315	896	5,211	-763	-46.0	118	277	-158
May	4,322	1,300	5,622	-668	-33.9	41	453	-412
June	4,323	1,768	6,091	-540	-23.4	36	506	-470
July	4,323	2,129	6,451	-410	-16.1	64	426	-361
August	4,324	2,435	6,760	-338	-12.2	62	371	-309
September	4,328	2,843	7,171	-199	-6.5	31	441	-411
October	F 4,328	F 3,155	F 7,483	F 39	F 1.3	F 85	F 334	F -249

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

^b For 1980-2001, 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 2 at end of section.

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.

Web Page: <http://www.eia.doe.gov/emeu/mer/natgas.html>.

Sources: See end of section.

Natural Gas

Note 1. 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 Energy Information Administration (EIA) *Natural Gas Annual (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.

Note 2. 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.

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	1984 ... 8,043	1993 ... 7,989
1976 ... 6,544	1985 ... 8,087	1994 ... 8,043
1977 ... 6,678	1986 ... 8,145	1995 ... 7,953
1978 ... 6,890	1987 ... 8,124	1996 ... 7,980
1979 ... 6,929	1988 ... 8,124	1997 ... 8,332
1980 ... 7,434	1989 ... 8,124	1998 ... 8,179
1981 ... 7,805	1990 ... 8,125	1999 ... 8,229
1982 ... 7,915	1991 ... 7,993	2000 ... 8,241
1983 ... 7,985	1992 ... 7,932	2001 ... 8,415

Monthly underground storage data are collected from the Federal Energy Regulatory Commission (FERC) Form FERC-8 (interstate data) and EIA Form 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 1980–2001 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.

Note 3. 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 Energy Information Administration (EIA) *Natural Gas Monthly NGM*, which was published in July 1985.

Note 4. Consumption: Consumption includes pipeline fuel use, lease and plant fuel use, and deliveries to consuming sectors.

Final data for series other than "Other Industrial CHP" and "Electric Power Sector" 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*.

Note 5. Consumption, 1989-1992: Prior to 1993, deliveries to nonutility generators were not separately collected from natural gas companies on Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition." As a result, for 1989 through 1992, those volumes are probably included in both the industrial and electric power sectors and double-counted in total consumption. In 1993, 0.28 trillion cubic feet was reported as delivered to nonutility generators.

Note 6. Nonhydrocarbon Gases Removed: Annual data on nonhydrocarbon gases removed from marketed production—carbon dioxide, helium, hydrogen sulfide, and nitrogen—are from the EIA *NGA*. 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 *NGM*.

Note 7. 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.

Note 8. 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*.

Note 9. Imports and Exports: The United States imports natural gas via pipeline from Canada and Mexico and imports liquefied natural gas (LNG) via tanker from Algeria, Australia, Indonesia, Nigeria, Oman, Qatar, Trinidad and Tobago, and the United Arab Emirates. In addition, 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 exports LNG via tanker to Japan. Also, small amounts of LNG have gone to Mexico since 1998.

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*.

Note 10. 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 monthly 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.

Table 4.4 Sources

Residential, Commercial, Lease and Plant Fuel, and Pipeline Fuel

1973–1996: Energy Information Administration (EIA), *Natural Gas Annual 2000*, Table 95.

1997 forward: EIA, *Natural Gas Monthly*, November 2003, Table 3.

Other Industrial Total

1973–1992: EIA, *Natural Gas Annual 2000*, Table 95.

1993–1996: EIA, Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers."

1997 forward: EIA, *Natural Gas Monthly*, November 2003, Table 3.

Other Industrial CHP

Table 7.3c.

Electric Power Sector

1973–1988: Table 7.3e.

1989 forward: Table 7.3b.

Vehicle Fuel

Annual Data:

1990 and 1991: EIA, *Natural Gas Annual 2000*, Table 95.

1992–1995: Science Applications International Corporation, "Alternative Transportation Fuels and Vehicles Data Development," unpublished final report prepared for EIA (McLean, VA, July 1996) and U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy.

1996–2002: EIA, Office of Coal, Nuclear, Electric, and

Alternative Fuels.

Monthly Estimates: Derived by dividing the annual value by the number of days in the year and then multiplying by the number of days in the month.

All Other Series: Calculated.

Forecast Values: EIA, Short-Term Integrated Forecasting System. See Note 10.

Table 4.5 Sources

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.

1980-1995: EIA, *Historical Natural Gas Annual 1930 Through 2000*, Table 11.

1996: EIA, *Natural Gas Monthly*, February 2003, Table 9.

1997 forward: EIA, *Natural Gas Monthly*, November 2003, Table 9.

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."

1979-1995: EIA, Form EIA-191, "Underground Gas Storage Report," and FERC, Form FERC-8, "Underground Gas Storage Report."

1996: EIA, *Natural Gas Monthly*, February 2003, Table 9.

1997 forward: EIA, *Natural Gas Monthly*, November 2003, Table 9.

Forecast Values: EIA, Short-Term Integrated Forecasting System. See Note 10.

Section 5. Crude Oil and Natural Gas Resource Development

The December 2003 rotary rig count was 1,114, less than 1 percent higher than the count in November 2003 but 30 percent higher than the count in December 2002. Of the total number of rigs in operation, 1,010 were onshore and 104 were offshore. For December 2003, the number of onshore rigs was up 36 percent but the number of offshore rigs was down 9 percent from the December 2002 count. Rotary rigs drilling for natural gas as a share of total rigs stood at 86 percent in December 2003.

Total footage drilled in December 2003 was 19.2 million feet, less than 1 percent lower than the footage drilled in November 2003 but up 51 percent from that drilled in December 2002.

The number of exploratory and development crude oil and natural gas wells drilled during December 2003 was 2,298, down less than 1 percent from the number drilled in November 2003 but up 25 percent from the number

drilled in December 2002. The number of crude oil wells drilled was 461, and the number of natural gas wells was 1,837, 3 percent lower and 34 percent higher, respectively, than their December 2002 levels.

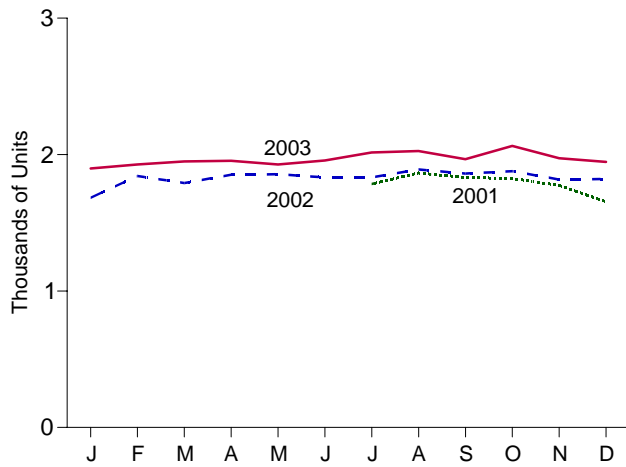
The number of dry holes drilled in December 2003 was 394, the same as the number drilled in November 2003 but up 28 percent from the number drilled in December 2002.

There were 1.9 thousand well service rigs active in December 2003, 1 percent lower than the previous month but 7 percent more than the count a year ago.

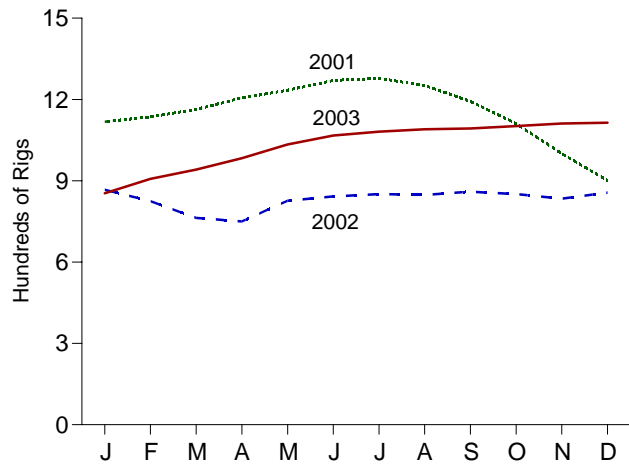
The number of seismic crews active in the 48 States onshore in December 2003 was 32, 1 more than a year earlier. The number of crews active in the 48 States offshore was 10, 1 less than a year earlier. No crews were active in Alaska in December 2003, compared with 1 crew active a year ago.

Figure 5.1 Crude Oil and Natural Gas Resource Development Indicators

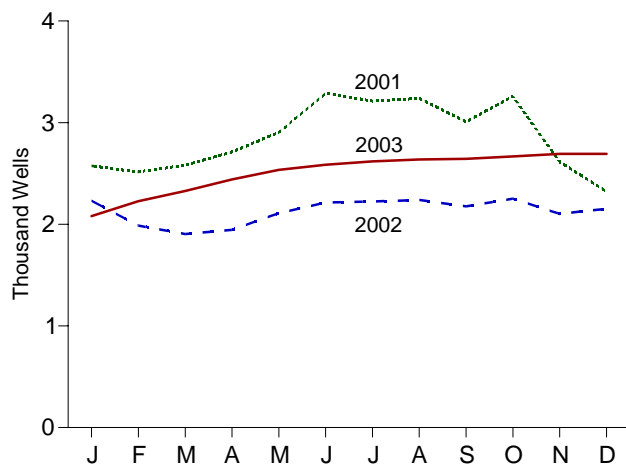
Active Well Service Rig Count



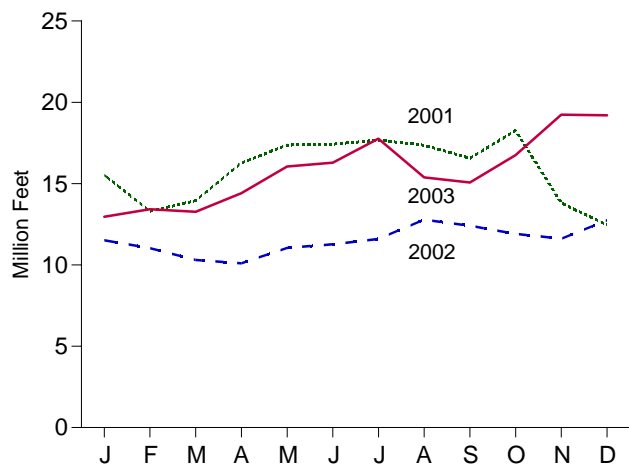
Rotary Rigs in Operation



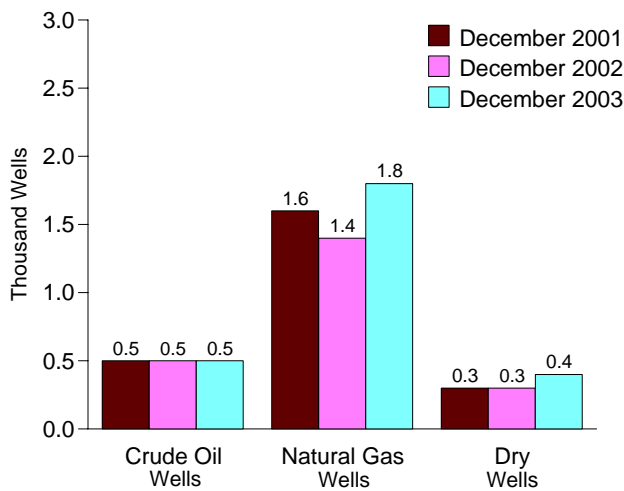
Wells Drilled



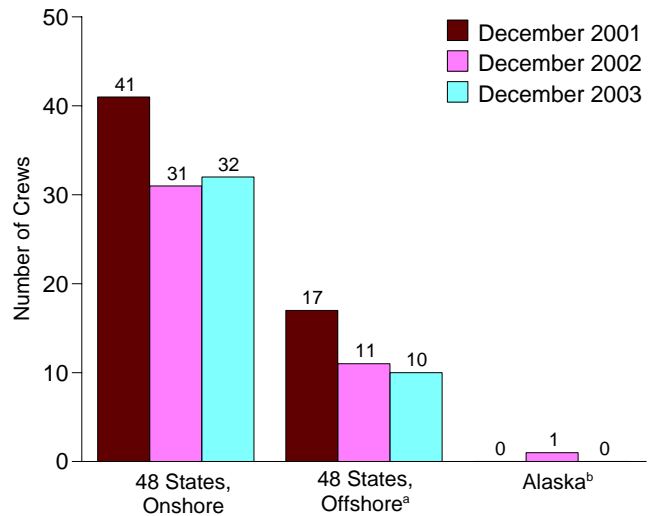
Footage Drilled



Wells Drilled by Type



Maximum U.S. Active Seismic Crew Counts



^aFederal and State Jurisdiction waters of Gulf of Mexico.
^bAll onshore.

Web Page: <http://www.eia.doe.gov/emeu/mer/resource.html>.
 Sources: Tables 5.1-5.3.

Table 5.1 Crude Oil and Natural Gas Drilling Activity Measurements

	Rotary Rigs in Operation ^a					Total Footage Drilled ^c	Active Well Service Rig Count ^d
	By Site		By Objective		Total ^b		
	Onshore	Offshore	Crude Oil	Natural Gas			
	Average						
1973 Average	1,110	84	NA	NA	1,194	138,223	NA
1974 Average	1,378	94	NA	NA	1,472	153,374	NA
1975 Average	1,554	106	NA	NA	1,660	180,494	NA
1976 Average	1,529	129	NA	NA	1,658	186,982	NA
1977 Average	1,834	167	NA	NA	2,001	215,866	NA
1978 Average	2,074	185	NA	NA	2,259	238,669	NA
1979 Average	1,970	207	NA	NA	2,177	244,798	NA
1980 Average	2,678	231	NA	NA	2,909	314,654	NA
1981 Average	3,714	256	NA	NA	3,970	413,112	NA
1982 Average	2,862	243	NA	NA	3,105	378,295	NA
1983 Average	2,033	199	NA	NA	2,232	317,986	NA
1984 Average	2,215	213	NA	NA	2,428	371,392	NA
1985 Average	1,774	206	NA	NA	1,980	313,045	NA
1986 Average	865	99	NA	NA	964	181,856	NA
1987 Average	841	95	NA	NA	936	162,178	NA
1988 Average	813	123	554	354	936	156,354	NA
1989 Average	764	105	453	401	869	134,439	NA
1990 Average	902	108	532	464	1,010	153,701	NA
1991 Average	779	81	482	351	860	143,021	NA
1992 Average	669	52	373	331	721	121,124	NA
1993 Average	672	82	373	364	754	135,118	NA
1994 Average	673	102	335	427	775	124,809	NA
1995 Average	622	101	323	385	723	117,832	NA
1996 Average	671	108	306	464	779	129,045	NA
1997 Average	821	122	376	564	943	156,661	NA
1998 Average	703	123	264	560	827	143,454	NA
1999 Average	519	106	128	496	625	99,410	NA
2000 Average	778	140	197	720	918	141,392	NA
2001 January	944	174	239	879	1,118	15,525	NA
February	973	163	237	898	1,136	13,296	NA
March	996	167	248	913	1,163	13,953	NA
April	1,037	169	247	957	1,206	16,268	NA
May	1,063	171	235	997	1,234	17,374	NA
June	1,107	163	219	1,050	1,270	17,418	NA
July	1,121	157	219	1,058	1,278	17,672	1,784
August	1,105	147	219	1,032	1,252	17,363	1,865
September	1,049	144	220	972	1,193	16,563	1,832
October	978	133	198	913	1,111	18,264	1,824
November	866	134	174	825	1,000	13,806	1,774
December	778	123	147	754	901	12,465	1,654
Average	1,003	153	217	939	1,156	189,967	NA
2002 January	741	126	141	725	867	11,513	1,683
February	702	123	144	679	825	11,031	1,843
March	649	114	144	617	763	10,303	1,791
April	645	105	136	612	750	10,102	1,852
May	721	105	134	690	826	11,039	1,856
June	732	110	138	704	842	11,274	1,832
July	740	111	133	716	851	11,590	1,832
August	737	111	125	721	848	12,782	1,891
September	746	114	122	736	860	12,410	1,861
October	740	111	140	709	851	11,907	1,878
November	725	109	146	683	834	11,612	1,817
December	742	114	137	714	856	12,747	1,821
Average	717	113	137	691	830	138,310	1,830
2003 January	743	111	132	718	854	12,962	1,898
February	797	110	153	750	907	13,429	1,928
March	836	105	171	767	941	13,269	1,950
April	877	106	185	795	983	14,409	1,954
May	921	113	167	864	1,034	16,047	1,927
June	958	109	152	910	1,067	16,287	1,957
July	974	107	153	924	1,081	17,767	2,016
August	979	111	153	932	1,090	15,380	2,026
September	984	109	154	936	1,093	15,071	1,966
October	997	105	158	941	1,102	16,751	2,064
November	1,005	106	158	952	1,111	19,238	1,973
December	1,010	104	153	959	1,114	19,197	1,946
Average	924	108	157	872	1,032	189,807	1,967

^a Rotary rigs in operation are reported weekly. Monthly data are averages of 4- or 5-week reporting periods, not calendar months. Multi-month data are averages of the reported data over the covered months, not averages of the weekly data. Annual data are averages over 52 or 53 weeks, not calendar years. Published data are rounded to the nearest whole number.

^b Sum of rigs drilling for crude oil, rigs drilling for natural gas, and other rigs (not shown) drilling for miscellaneous purposes, such as service wells, injection wells, and stratigraphic tests.

^c Values shown are totals.

^d See Glossary.

NA=Not available.

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

Web Page: <http://www.eia.doe.gov/emeu/mer/resource.html>.

Sources: • **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 Service Rig Count:** Weatherford International, Inc., Houston, Texas.

Table 5.2 Crude Oil and Natural Gas Wells Drilled
(Number of Wells)

	Exploratory				Development				Total			
	Crude Oil	Natural Gas	Dry	Total	Crude Oil	Natural Gas	Dry	Total	Crude Oil	Natural Gas	Dry	Total
1973 Total	642	1,067	5,952	7,661	9,525	5,866	4,368	19,759	10,167	6,933	10,320	27,420
1974 Total	859	1,190	6,833	8,882	12,788	5,948	5,283	24,019	13,647	7,138	12,116	32,901
1975 Total	982	1,248	7,129	9,359	15,966	6,879	6,517	29,362	16,948	8,127	13,646	38,721
1976 Total	1,086	1,346	6,772	9,204	16,602	8,063	6,986	31,651	17,688	9,409	13,758	40,855
1977 Total	1,164	1,548	7,283	9,995	17,581	10,574	7,702	35,857	18,745	12,122	14,985	45,852
1978 Total	1,171	1,771	7,965	10,907	18,010	12,642	8,586	39,238	19,181	14,413	16,551	50,145
1979 Total	1,321	1,907	7,437	10,665	19,530	13,347	8,662	41,539	20,851	15,254	16,099	52,204
1980 Total	1,764	2,081	9,039	12,884	30,875	15,252	11,599	57,726	32,639	17,333	20,638	70,610
1981 Total	2,636	2,514	12,349	17,499	40,962	17,652	15,440	74,054	43,598	20,166	27,789	91,553
1982 Total	2,431	2,125	11,247	15,803	36,768	16,854	14,972	68,594	39,199	18,979	26,219	84,397
1983 Total	2,023	1,593	10,148	13,764	35,097	12,971	14,005	62,073	37,120	14,564	24,153	75,837
1984 Total	2,198	1,521	11,278	14,997	40,407	15,606	14,403	70,416	42,605	17,127	25,681	85,413
1985 Total	1,679	1,190	8,924	11,793	33,439	12,978	12,132	58,549	35,118	14,168	21,056	70,342
1986 Total	1,084	793	5,549	7,426	18,013	7,723	7,129	32,865	19,097	8,516	12,678	40,291
1987 Total	925	753	5,049	6,728	15,239	7,301	6,063	28,603	16,164	8,055	11,112	35,331
1988 Total	855	743	4,693	6,291	12,781	7,812	5,348	25,941	13,636	8,555	10,041	32,232
1989 Total	607	705	3,924	5,236	9,597	8,834	4,264	22,695	10,204	9,539	8,188	27,931
1990 Total	654	689	3,715	5,058	11,544	10,355	4,598	26,497	12,198	11,044	8,313	31,555
1991 Total	592	534	3,314	4,440	11,178	8,992	4,282	24,452	11,770	9,526	7,596	28,892
1992 Total	493	423	2,513	3,429	8,264	7,786	3,605	19,655	8,757	8,209	6,118	23,084
1993 Total	502	548	2,469	3,519	7,905	9,469	3,859	21,233	8,407	10,017	6,328	24,752
1994 Total	570	726	2,405	3,701	6,151	8,812	2,902	17,865	6,721	9,538	5,307	21,566
1995 Total	542	570	2,198	3,310	7,085	7,784	2,877	17,746	7,627	8,354	5,075	21,056
1996 Total	483	570	2,136	3,189	7,831	8,732	3,146	19,709	8,314	9,302	5,282	22,898
1997 Total	428	536	2,110	3,074	10,008	10,791	3,592	24,391	10,436	11,327	5,702	27,465
1998 Total	291	504	1,647	2,442	6,773	10,804	3,193	20,770	7,064	11,308	4,840	23,212
1999 Total	154	539	1,195	1,888	4,022	10,338	2,169	16,529	4,176	10,877	3,364	18,417
2000 Total	264	609	1,288	2,161	7,094	15,846	2,737	25,677	7,358	16,455	4,025	27,838
2001 January	19	74	101	194	669	1,480	231	2,380	688	1,554	332	2,574
February	29	76	94	199	599	1,511	206	2,316	628	1,587	300	2,515
March	28	51	90	169	661	1,563	188	2,412	689	1,614	278	2,581
April	28	81	127	236	649	1,610	217	2,476	677	1,691	344	2,712
May	28	84	136	248	736	1,678	241	2,655	764	1,762	377	2,903
June	31	89	128	248	717	2,067	258	3,042	748	2,156	386	3,290
July	31	89	153	273	651	2,070	218	2,939	682	2,159	371	3,212
August	27	104	132	263	670	2,056	248	2,974	697	2,160	380	3,237
September	21	95	119	235	616	1,912	246	2,774	637	2,007	365	3,009
October	34	104	144	282	759	1,997	220	2,976	793	2,101	364	3,258
November	20	88	131	239	549	1,651	175	2,375	569	1,739	306	2,614
December	26	53	103	182	462	1,500	178	2,140	488	1,553	281	2,322
Total	322	988	1,458	2,768	7,738	21,095	2,626	31,459	8,060	22,083	4,084	34,227
2002 January	13	60	108	181	515	1,328	207	2,050	528	1,388	315	2,231
February	16	72	103	191	418	1,231	148	1,797	434	1,303	251	1,988
March	16	62	96	174	419	1,126	185	1,730	435	1,188	281	1,904
April	29	39	94	162	459	1,142	182	1,783	488	1,181	276	1,945
May	24	48	103	175	447	1,287	199	1,933	471	1,335	302	2,108
June	15	49	86	150	532	1,310	222	2,064	547	1,359	308	2,214
July	22	45	83	150	522	1,323	228	2,073	544	1,368	311	2,223
August	14	59	105	178	540	1,322	200	2,062	554	1,381	305	2,240
September	18	61	106	185	440	1,349	203	1,992	458	1,410	309	2,177
October	16	58	106	180	569	1,300	203	2,072	585	1,358	309	2,252
November	20	56	84	160	519	1,252	171	1,942	539	1,308	255	2,102
December	20	59	106	185	455	1,309	203	1,967	475	1,368	309	2,152
Total	223	668	1,180	2,071	5,835	15,279	2,351	23,465	6,058	15,947	3,531	25,536
2003 January	15	59	106	180	383	1,316	202	1,901	398	1,375	308	2,081
February	17	62	113	192	444	1,375	216	2,035	461	1,437	329	2,227
March	19	63	118	200	496	1,406	226	2,128	515	1,469	344	2,328
April	21	65	123	209	536	1,458	238	2,232	557	1,523	361	2,441
May	19	72	129	220	486	1,582	247	2,315	505	1,654	376	2,535
June	17	76	132	225	442	1,667	252	2,361	459	1,743	384	2,586
July	17	76	133	226	444	1,694	255	2,393	461	1,770	388	2,619
August	17	77	134	228	444	1,708	257	2,409	461	1,785	391	2,637
September	17	77	131	225	447	1,716	256	2,419	464	1,793	387	2,644
October	18	78	132	228	458	1,724	258	2,440	476	1,802	390	2,668
November	18	78	134	230	458	1,745	260	2,463	476	1,823	394	2,693
December	17	79	134	230	444	1,758	260	2,462	461	1,837	394	2,692
Total	212	862	1,519	2,593	5,482	19,149	2,927	27,558	5,694	20,011	4,446	30,151

Notes: • These well counts include only the original drilling of a hole intended to discover or further develop already discovered crude oil or natural gas resources. Other drilling activities, such as drilling an old well deeper, drilling of laterals from the original well, drilling of service and injection wells, and drilling for resources other than crude oil or natural gas are excluded. Due to the methodology used to estimate ultimate well counts from the available partially reported data, the counts shown on this page are frequently

revised. See notes at end of section. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: <http://www.eia.doe.gov/emeu/mer/resource.html>
Sources: Energy Information Administration computations, which are based on well reports submitted by the Petroleum Information Corporation, Denver, Colorado.

Table 5.3 Maximum U.S. Active Seismic Crew Counts
(Number of Crews)

	48 States, Onshore				48 States, Offshore ^a				Alaska ^b				Total	
	Dimensions ^c			Total ^d	Dimensions ^c			Total ^d	Dimensions ^c			Total ^d		
	2	3	4		2	3	4		2	3	4			
2000														
March	4	36	1	41	7	11	0	19	1	1	0	2	62	
April	4	36	1	41	7	11	0	19	1	2	0	3	63	
May	3	34	1	38	6	11	0	18	1	2	0	3	59	
June	5	37	1	43	7	9	0	17	1	2	0	3	63	
July	4	39	1	44	6	6	0	13	0	1	0	1	58	
August	4	40	1	45	7	7	0	15	0	1	0	1	61	
September	3	39	1	43	7	8	0	16	0	0	0	0	59	
October	4	41	1	46	7	9	0	17	0	0	0	0	63	
November	4	40	1	46	7	8	0	16	0	0	0	0	62	
December	5	41	1	48	8	8	0	17	0	0	0	0	65	
2001														
January	5	38	1	44	9	7	0	17	0	0	0	0	61	
February	6	38	1	45	8	7	0	16	0	0	0	0	61	
March	6	38	1	45	9	9	0	18	0	0	0	0	63	
April	7	39	1	47	9	9	0	18	0	0	0	0	65	
May	7	37	1	45	9	8	0	17	1	1	0	2	64	
June	6	35	1	42	9	7	0	16	1	1	0	2	60	
July	6	35	1	42	8	8	0	16	0	0	0	0	58	
August	8	32	1	41	7	8	0	15	0	0	0	0	56	
September	8	30	1	39	6	9	0	15	0	0	0	0	54	
October	5	33	1	39	9	10	0	19	0	0	0	0	58	
November	7	34	1	42	7	10	0	17	0	0	0	0	59	
December	7	33	1	41	8	9	0	17	0	0	0	0	58	
2002														
January	6	32	0	38	8	6	0	14	1	1	0	2	54	
February	9	31	0	40	9	6	0	15	1	1	0	2	57	
March	9	26	0	35	10	7	0	17	1	1	0	2	54	
April	7	25	0	32	9	7	0	16	1	1	0	2	50	
May	8	24	0	32	9	8	0	17	1	1	0	2	51	
June	9	23	0	32	9	7	0	16	1	1	0	2	50	
July	8	26	0	34	8	8	0	16	1	1	0	2	52	
August	7	26	0	33	8	7	0	15	1	1	0	2	50	
September	9	28	0	37	10	7	0	17	1	1	0	2	56	
October	8	30	0	38	10	7	0	17	1	1	0	2	57	
November	8	27	0	35	8	5	0	13	1	1	0	2	50	
December	8	22	0	31	7	4	0	11	1	0	0	1	43	
2003														
January	8	19	1	28	8	4	0	12	0	0	0	0	40	
February	9	20	0	29	8	4	0	12	0	0	0	0	41	
March	8	20	0	28	7	4	0	11	1	1	0	2	41	
April	7	20	0	27	7	4	0	11	1	1	0	2	40	
May	7	17	0	24	8	4	0	12	1	1	0	2	38	
June	7	18	0	25	8	4	0	12	1	1	0	2	39	
July	7	21	0	28	7	4	0	11	1	1	0	2	41	
August	8	22	0	30	7	4	0	11	1	1	0	2	43	
September	8	22	0	30	7	2	0	9	0	0	0	0	39	
October	7	24	0	31	5	3	0	8	0	0	0	0	39	
November	7	24	0	31	4	3	0	7	0	0	0	0	38	
December	7	25	0	32	5	5	0	10	0	0	0	0	42	

^a Federal and State Jurisdiction waters of the Gulf of Mexico.

^b All onshore.

^c In **two-dimensional** (2D) reflection seismic surveying both the sound source and the sound detectors (numbering up to a hundred or more per shot) are moved along a straight line. The resultant product can be thought of as a vertical sonic cross-section of the subsurface beneath the survey line. It is constructed by summing many compressional (pressure) wave reflections from the various sound source and sound detector locations at the halfway sound path points beneath each location (common depth point stacking). In **three-dimensional** (3D) reflection seismic surveying the sound detectors (numbering up to a thousand or more) are spread out over an area and the sound source is moved from location to location through the area. The resultant product can be thought of as a cube of common depth point stacked reflections. Advantages over 2D include the additional dimension, the fact that many more reflections are available for stacking at each point, which provides greatly improved resolution of subsurface

features, and elimination of the "ghost" or "side swipe" reflections from nearby offline features that 2D surveys are prone to (except, of course, along the outer faces of the cube). **Four dimensional** (4D) reflection seismic surveying is the exact repetition of a 3D survey at two or more time intervals. The primary application of 4D is mapping the movement of fluid interfaces in producing oil and gas reservoirs.

^d Includes crews with unknown survey dimension.

Notes: • "48 States" is the United States excluding Alaska and Hawaii.
• Data are reported on the first and fifteenth of each month, except January when they are reported only on the fifteenth. When semi-monthly values differ for the month, the larger of the two values is shown here. Consequently this table reflects the maximum number of crews at work at any time during the month.

Web Page: <http://www.eia.doe.gov/emeu/mer/resource.html>.

Source: *World Geophysical News*, IHS Energy Group, Denver, CO. used with permission.

Crude Oil and Natural Gas Resource Development

Table 5.2 Notes

Three well types are considered in the *Monthly Energy Review (MER)* drilling statistics: “completed for crude oil,” “completed for natural gas,” and “dry hole.” Wells that productively encounter both crude oil and natural gas are categorized as “completed for crude 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 (EIA) estimates produced by statistically imputing well counts and footage based on the partial data available from the API. These estimates are subject to continuous revision as new data, some of which pertain to earlier months and years, become available. Additional information about the EIA estimation methodology may be found in “Estimating Well Completions,” the feature article published in the March 1985 *MER*.

Users of the well completion and footage figures published by the Energy Information Administration (EIA) prior to August 1998 should be aware that these data have been revised. The published well completion and footage figures are produced by the Well Completion Estimation Procedure (WELCOM) based on drilling records provided under contract to the EIA. Problems in the files received by EIA necessitated revision of the historical series for well completions and footage drilled. Queries regarding this matter may be directed to William Trapmann (202-586-6408 or william.trapmann@eia.doe.gov).

Section 6. Coal

Coal production in December 2003 totaled 94 million short tons, 3 percent higher than in December 2002.

Coal consumed by the electric power sector in October 2003 was forecast as 78 million short tons, 4 percent lower than the level in October 2002.

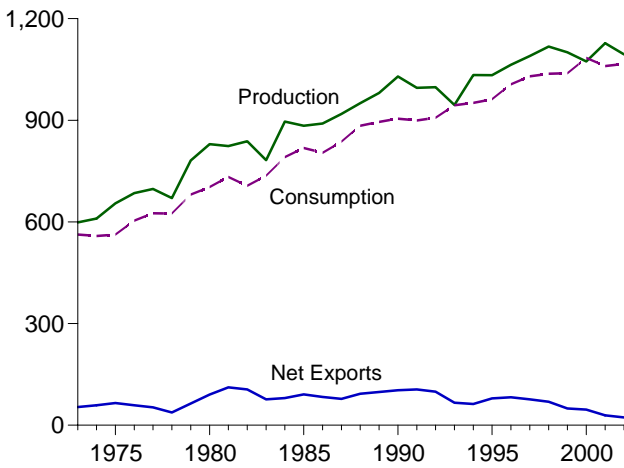
Electric power sector coal stocks were forecast as 134

million short tons at the end of October 2003, 5 percent lower than the level a year earlier.

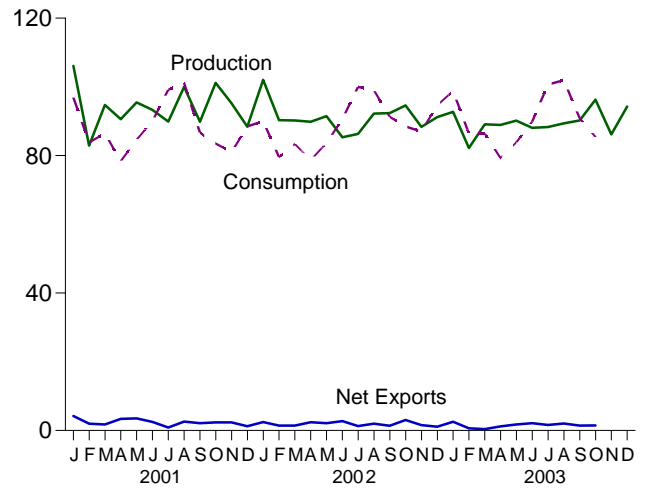
Coal exports in October 2003 totaled 4 million short tons, 9 percent lower than exports in October 2002. Coal imports in October 2003 totaled 3 million short tons, 86 percent higher than imports in October 2002.

Figure 6.1 Coal
(Million Short Tons)

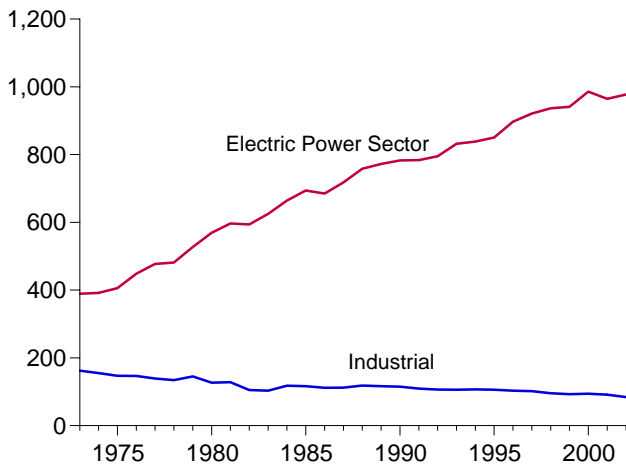
Overview, 1973-2002



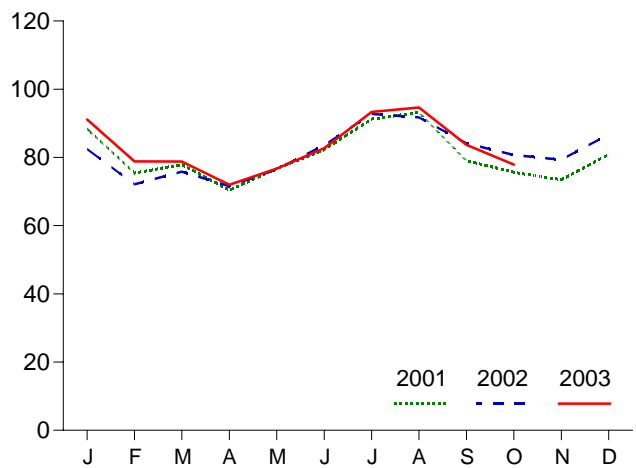
Overview, Monthly



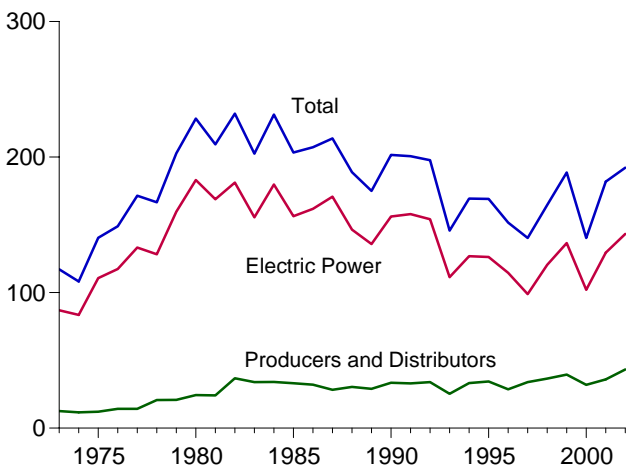
Consumption by Sector, 1973-2002



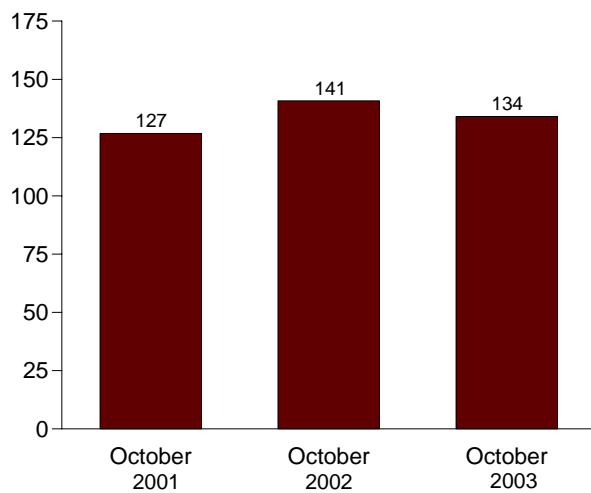
Electric Power Sector Consumption, Monthly



Stocks, End of Year, 1973-2002



Electric Power Sector Stocks, End of Month



Note: Because vertical scales differ, graphs should not be compared.
Web Page: <http://www.eia.doe.gov/emeu/mer/coal.html>.
Sources: Tables 6.1, 6.2, and 6.3.

Table 6.1 Coal Overview
(Thousand Short Tons)

	Production ^a	Waste Coal ^{b,c}	Imports	Exports	Stock Change ^d	Losses and Unaccounted for ^e	Consumption
1973 Total	598,568	NA	127	53,587	(^f)	^g -17,476	562,584
1974 Total	610,023	NA	2,080	60,661	-8,918	1,958	558,402
1975 Total	654,641	NA	940	66,309	32,154	-5,522	562,640
1976 Total	684,913	NA	1,203	60,021	8,508	13,797	603,790
1977 Total	697,205	NA	1,647	54,312	22,644	-3,395	625,291
1978 Total	670,164	NA	2,953	40,714	-4,938	12,116	625,225
1979 Total	781,134	NA	2,059	66,042	36,206	421	680,524
1980 Total	829,700	NA	1,194	91,742	25,595	10,827	702,730
1981 Total	823,775	NA	1,043	112,541	-18,983	-1,366	732,627
1982 Total	838,112	NA	742	106,277	22,614	3,052	706,911
1983 Total	782,091	NA	1,271	77,772	-29,453	-1,629	736,672
1984 Total	895,921	NA	1,286	81,483	28,716	-4,288	791,296
1985 Total	883,638	NA	1,952	92,680	-27,934	2,796	818,049
1986 Total	890,315	NA	2,212	85,518	3,953	-1,175	804,231
1987 Total	918,762	NA	1,747	79,607	6,461	-2,499	836,941
1988 Total	950,265	NA	2,134	95,023	-24,949	-1,316	883,642
1989 Total	980,729	1,407	2,851	100,815	-13,744	2,916	895,000
1990 Total	1,029,076	3,339	2,699	105,804	26,542	-1,730	904,498
1991 Total	995,984	3,950	3,390	108,969	-947	-3,925	899,227
1992 Total	997,545	6,287	3,803	102,516	-2,997	461	907,655
1993 Total	945,424	8,137	8,181	74,519	-51,943	-4,916	944,081
1994 Total	1,033,504	8,227	8,870	71,359	4,340	4,340	951,286
1995 Total	1,032,974	8,561	9,473	88,547	-275	632	962,104
1996 Total	1,063,856	8,778	8,115	90,473	-17,456	1,411	1,006,321
1997 Total	1,089,932	8,096	7,487	83,545	-11,253	3,678	1,029,544
1998 Total	1,117,535	8,690	8,724	78,048	24,228	-4,430	1,037,103
1999 Total	1,100,431	8,683	9,089	58,476	23,988	-2,906	1,038,647
2000 Total	1,073,612	9,089	12,513	58,489	-48,309	938	1,084,095
2001							
January	106,110	(^c)	1,303	5,512	-2,118	7,122	96,897
February	82,900	(^c)	1,252	3,236	3,824	-6,680	83,772
March	94,761	(^c)	1,355	3,094	12,607	-6,084	86,499
April	90,578	(^c)	1,253	4,623	10,439	-1,603	78,372
May	95,505	(^c)	1,435	4,966	8,320	-950	84,605
June	93,310	(^c)	1,436	3,911	-1,833	2,644	90,025
July	89,884	(^c)	2,289	3,166	-6,626	-3,524	99,157
August	100,000	(^c)	1,772	4,364	-6,805	3,108	101,105
September	89,845	(^c)	1,986	4,125	-871	1,872	86,705
October	101,145	(^c)	1,649	4,002	9,947	5,334	83,511
November	95,244	(^c)	2,057	4,413	8,420	3,455	81,013
December	88,407	(^c)	2,001	3,256	6,325	-7,658	88,485
Total	1,127,689	(^c)	19,787	48,666	41,630	-2,966	1,060,146
2002							
January	102,056	(^c)	1,439	3,873	^R 4,081	^R 5,537	^R 90,004
February	90,311	(^c)	1,222	2,630	^R 5,364	^R 3,970	^R 79,569
March	90,206	(^c)	1,339	2,749	^R 1,572	^R 3,829	^R 83,395
April	89,849	(^c)	1,208	3,584	^R 11,722	^R -2,938	^R 78,688
May	91,478	(^c)	1,227	3,330	^R 1,035	^R 4,681	^R 83,658
June	85,341	(^c)	1,422	4,128	^R -5,678	^R -2,301	^R 90,613
July	86,326	(^c)	1,573	2,843	^R -10,022	^R -4,898	^R 99,977
August	92,203	(^c)	1,555	3,529	^R -9,241	^R 457	^R 99,012
September	92,368	(^c)	1,526	2,884	^R -1,726	^R 1,431	^R 91,305
October	94,608	(^c)	1,369	4,407	^R 4,288	^R -1,186	^R 88,469
November	88,352	(^c)	1,393	2,930	^R 5,490	^R -5,690	^R 87,016
December	91,184	(^c)	1,602	2,712	^R 3,330	^R -7,905	^R 94,648
Total	1,094,283	(^c)	16,875	39,601	^R 10,215	^R -5,012	^R 1,066,355
2003							
January	92,757	(^c)	1,134	3,680	^R -13,361	^R 4,787	98,784
February	82,228	(^c)	1,804	2,428	-6,442	1,618	86,428
March	89,092	(^c)	2,017	2,410	3,509	-1,205	86,396
April	88,935	(^c)	2,390	3,571	10,183	-1,743	79,314
May	90,169	(^c)	2,109	3,875	309	4,260	83,834
June	88,089	(^c)	1,894	4,003	-682	-3,195	89,856
July	88,328	(^c)	2,619	4,223	-11,499	-2,494	100,716
August	89,380	(^c)	2,133	4,164	-10,112	-4,499	101,960
September	90,231	(^c)	2,300	3,707	^R -677	^R -1,406	^R 90,908
October	96,287	(^c)	2,545	3,997	^E 13,458	^E -4,034	^F 85,411
November	86,171	(^c)	NA	NA	NA	NA	NA
December	94,278	(^c)	NA	NA	NA	NA	NA
Total	1,075,944	(^c)	NA	NA	NA	NA	NA

^a Beginning in 2001, includes bituminous refuse.

^b Waste coal (including anthracite culm, bituminous gob, fine coal, and lignite waste) consumed by independent power producers. For 1989-2000, waste coal is counted as a supply-side item to balance the same amount of waste coal included in "Consumption."

^c Beginning in 2001, bituminous refuse is included in "Production"; to avoid double counting, waste coal is not counted as a separate supply-side item for 2001 forward.

^d A negative value indicates a decrease in stocks; a positive value indicates an increase.

^e "Losses and Unaccounted for" is calculated as the sum of production, imports,

and waste coal, minus exports, stock change, and consumption.

^f Included in "Losses and Unaccounted for."

^g Includes stock change.

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

• For methodology used to calculate production, consumption, and stock, see Notes 1, 2, and 3 at end of section.

Web Page: <http://www.eia.doe.gov/emeu/mer/coal.html>.

Sources: See end of section.

Table 6.2 Coal Consumption by Sector
(Thousand Short Tons)

	End-Use Sectors											Total
	Residential	Commercial			Coke Plants	Industrial			Transportation	Electric Power Sector ^{e,f}		
		CHP ^a	Other ^b	Total		Other Industrial	Total	Total				
											CHP ^c	
1973 Total	4,113	(g) 7,004	7,004	94,101	(h) 68,038	68,038	162,139	116	389,212	562,584		
1974 Total	3,653	(g) 7,764	7,764	90,191	(h) 64,903	64,903	155,094	80	391,811	558,402		
1975 Total	2,823	(g) 6,587	6,587	83,598	(h) 63,646	63,646	147,244	24	405,962	562,640		
1976 Total	2,586	(g) 6,330	6,330	84,704	(h) 61,787	61,787	146,911	12	448,371	603,790		
1977 Total	2,507	(g) 6,447	6,447	77,739	(h) 61,463	61,463	139,202	9	477,126	625,291		
1978 Total	2,188	(g) 7,323	7,323	71,394	(h) 63,085	63,085	134,479	(h)	481,235	625,225		
1979 Total	1,678	(g) 6,710	6,710	77,368	(h) 67,717	67,717	145,085	(h)	527,051	680,524		
1980 Total	1,355	(g) 5,097	5,097	66,657	(h) 60,347	60,347	127,004	(h)	569,274	702,730		
1981 Total	1,336	(g) 6,085	6,085	61,014	(h) 67,395	67,395	128,409	(h)	596,797	732,627		
1982 Total	1,401	(g) 6,839	6,839	40,908	(h) 64,097	64,097	105,005	(h)	593,666	706,911		
1983 Total	1,352	(g) 7,096	7,096	37,033	(h) 65,980	65,980	103,013	(h)	625,211	736,672		
1984 Total	1,735	(g) 7,395	7,395	44,022	(h) 73,745	73,745	117,767	(h)	664,399	791,296		
1985 Total	1,711	(g) 6,068	6,068	41,056	(h) 75,372	75,372	116,429	(h)	693,841	818,049		
1986 Total	1,763	(g) 5,904	5,904	35,924	(h) 75,583	75,583	111,508	(h)	685,056	804,231		
1987 Total	1,590	(g) 5,324	5,324	36,957	(h) 75,175	75,175	112,132	(h)	717,894	836,941		
1988 Total	1,569	(g) 5,561	5,561	41,888	(h) 76,252	76,252	118,140	(h)	758,372	883,642		
1989 Total	1,295	1,125	3,747	40,508	24,867	51,268	76,134	116,643	772,190	895,000		
1990 Total	1,345	1,191	4,189	38,877	27,781	48,549	76,330	115,207	782,567	904,498		
1991 Total	1,097	1,228	3,769	4,997	33,854	27,021	48,384	75,405	109,259	783,874		
1992 Total	1,107	1,175	3,871	5,045	32,366	28,244	45,799	74,042	106,408	795,094		
1993 Total	1,120	1,373	3,729	5,101	31,323	28,886	46,006	74,892	106,215	831,645		
1994 Total	902	1,344	3,767	5,111	31,740	29,707	45,471	75,179	106,919	838,354		
1995 Total	755	1,419	3,633	5,052	33,011	29,363	43,693	73,055	106,067	850,230		
1996 Total	721	1,660	3,625	5,285	31,706	29,434	42,254	71,689	103,395	896,921		
1997 Total	711	1,738	4,015	5,752	30,203	29,853	41,661	71,515	101,718	921,364		
1998 Total	534	1,443	2,879	4,322	28,189	28,553	38,887	67,439	95,628	936,619		
1999 Total	585	1,490	2,803	4,293	28,108	27,763	36,975	64,738	92,846	940,922		
2000 Total	454	1,547	2,126	3,673	28,939	28,031	37,177	65,208	94,147	985,821		
2001 January	57	131	332	463	2,176	2,424	3,381	5,805	7,981	88,395	96,897	
February	45	132	235	367	2,145	2,012	3,802	5,813	7,958	75,401	83,772	
March	42	129	207	336	2,466	2,220	3,517	5,737	8,202	77,919	86,499	
April	41	99	234	333	2,320	2,047	3,246	5,293	7,613	70,384	78,372	
May	26	105	105	209	2,337	1,965	3,327	5,292	7,629	76,741	84,605	
June	29	117	118	235	2,268	2,123	3,123	5,247	7,515	82,246	90,025	
July	36	144	144	288	2,206	2,267	3,117	5,385	7,591	91,242	99,157	
August	36	162	130	293	2,249	2,318	3,021	5,339	7,588	93,189	101,105	
September	24	122	75	197	2,145	2,115	3,204	5,319	7,464	79,020	86,705	
October	31	100	153	253	2,203	2,081	3,307	5,388	7,592	75,635	83,511	
November	42	97	243	340	1,846	2,041	3,314	5,355	7,201	73,431	81,013	
December	71	110	464	574	1,715	2,141	3,153	5,294	7,010	80,831	88,485	
Total	481	1,448	2,441	3,888	26,075	25,755	39,514	65,268	91,344	964,433	1,060,146	
2002 January	54	R 127	R 313	440	1,861	R 2,278	R 2,946	5,224	7,085	R 82,424	R 90,004	
February	47	R 102	R 282	384	1,763	R 1,990	R 3,240	5,230	6,993	R 72,144	R 79,569	
March	45	R 124	R 239	363	1,917	R 2,150	R 3,097	5,247	7,164	R 75,823	R 83,395	
April	40	R 100	R 222	322	1,932	R 2,115	R 2,721	4,835	6,767	R 71,560	R 78,688	
May	30	R 105	R 139	245	1,995	R 2,110	R 2,750	4,860	6,856	R 76,528	R 83,658	
June	28	R 112	R 113	225	1,910	R 2,101	R 2,785	4,886	6,796	R 83,565	R 90,613	
July	39	R 126	R 187	313	1,973	R 2,439	R 2,448	4,887	6,860	R 92,766	R 99,977	
August	34	R 127	R 151	279	2,054	R 2,153	R 2,739	4,893	6,947	R 91,752	R 99,012	
September	25	R 116	R 84	200	2,041	R 2,150	R 2,745	4,895	6,936	R 84,144	R 91,305	
October	33	R 114	R 150	264	2,186	R 2,231	R 3,041	5,272	7,458	R 80,714	R 88,469	
November	49	R 116	R 281	397	2,015	R 2,237	R 3,016	5,253	7,268	R 79,301	R 87,016	
December	65	R 134	R 391	525	2,009	R 2,279	R 2,986	5,265	7,274	R 86,784	R 94,648	
Total	489	R 1,405	R 2,551	3,956	23,656	R 26,232	R 34,515	60,747	84,403	R 977,507	R 1,066,355	
2003 January	60	146	337	484	1,940	2,484	2,708	5,191	7,132	91,109	98,784	
February	50	127	278	405	1,957	2,169	3,009	5,178	7,135	78,838	86,428	
March	37	125	173	298	2,103	2,254	2,934	5,188	7,291	78,770	86,396	
April	42	110	228	338	2,047	2,089	2,805	4,893	6,941	71,993	79,314	
May	30	94	147	241	1,964	1,952	2,934	4,886	6,850	76,714	83,834	
June	26	118	94	212	2,059	2,139	2,761	4,900	6,959	82,659	89,856	
July	37	137	164	301	2,079	2,391	2,582	4,973	7,052	93,326	100,716	
August	37	144	155	299	2,007	2,397	2,571	4,968	6,975	94,649	101,960	
September	24	R 121	R 70	192	2,024	R 1,995	R 2,979	4,974	6,998	R 83,695	R 90,908	
October	F 29	F 92	F 141	F 232	F 2,027	F 2,131	F 3,110	F 5,241	F 7,268	F 77,882	F 85,411	
10-Month Total ...	E 371	E 1,215	E 1,787	E 3,002	E 20,208	E 22,000	E 28,392	E 50,392	E 70,600	E 829,633	E 903,606	
2002 10-Month Total ...	375	1,155	1,879	3,034	19,632	21,716	28,512	50,229	69,861	811,422	884,691	
2001 10-Month Total ...	368	1,241	1,734	2,975	22,514	21,573	33,046	54,619	77,133	810,171	890,647	

^a Commercial combined-heat-and-power (CHP) and a small number of commercial electricity-only plants, such as those at hospitals and universities. See note at end of Section 7.
^b All commercial sector fuel use other than that in "Commercial CHP."
^c Industrial combined-heat-and-power (CHP) and a small number of industrial electricity-only plants. See note at end of Section 7.
^d All industrial sector fuel use other than that in "Coke Plants" and "Industrial CHP."
^e The electric power sector comprises electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public.
^f Through 1988, data are for consumption at electric utilities only. Beginning in 1989, data also include consumption at independent power producers.

^g Included in "Commercial Other."
^h Included in "Industrial Non-CHP."
R=Revised. E=Estimate. F=Forecast.
Notes: • CHP monthly data are from Table 7.3c; electric power sector monthly data are from Table 7.3b; all other monthly values are estimated. 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.
Web Page: <http://www.eia.doe.gov/emeu/mer/coal.html>.
Sources: See end of section. Forecast values: Energy Information Administration, Short-Term Integrated Forecasting System. See Note 4 at end of section.

Table 6.3 Coal Stocks by Sector
(Thousand Short Tons)

	Producers and Distributors	End-Use Sectors					Electric Power Sector ^{b,c}	Total
		Residential and Commercial	Industrial			Total		
			Coke Plants	Other ^a	Total			
1973 Year	12,530	290	6,998	10,370	17,368	17,658	86,967	117,155
1974 Year	11,634	280	6,209	6,605	12,814	13,094	83,509	108,237
1975 Year	12,108	233	8,797	8,529	17,326	17,559	110,724	140,391
1976 Year	14,221	240	9,902	7,100	17,002	17,242	117,436	148,899
1977 Year	14,225	220	12,816	11,063	23,879	24,099	133,219	171,543
1978 Year	20,695	360	8,278	9,048	17,326	17,686	128,225	166,606
1979 Year	20,826	340	10,155	11,777	21,932	22,272	159,714	202,812
1980 Year	24,379	NA	9,067	11,951	21,018	21,018	183,010	228,407
1981 Year	24,149	NA	6,475	9,906	16,381	16,381	168,893	209,423
1982 Year	36,784	NA	4,642	9,479	14,121	14,121	181,132	232,038
1983 Year	33,931	NA	4,346	8,710	13,056	13,056	155,598	202,584
1984 Year	34,090	NA	6,166	11,317	17,483	17,483	179,727	231,300
1985 Year	33,133	NA	3,420	10,438	13,857	13,857	156,376	203,367
1986 Year	32,093	NA	2,992	10,429	13,420	13,420	161,806	207,319
1987 Year	28,321	NA	3,884	10,777	14,662	14,662	170,797	213,780
1988 Year	30,418	NA	3,137	8,768	11,906	11,906	146,507	188,831
1989 Year	29,000	NA	2,864	7,363	10,227	10,227	135,860	175,087
1990 Year	33,418	NA	3,329	8,716	12,044	12,044	156,166	201,629
1991 Year	32,971	NA	2,773	7,061	9,835	9,835	157,876	200,682
1992 Year	33,993	NA	2,597	6,965	9,562	9,562	154,130	197,685
1993 Year	25,284	NA	2,401	6,716	9,117	9,117	111,341	145,742
1994 Year	33,219	NA	2,657	6,585	9,243	9,243	126,897	169,358
1995 Year	34,444	NA	2,632	5,702	8,334	8,334	126,304	169,083
1996 Year	28,648	NA	2,667	5,688	8,355	8,355	114,623	151,627
1997 Year	33,973	NA	1,978	5,597	7,576	7,576	98,826	140,374
1998 Year	36,530	NA	2,026	5,545	7,571	7,571	120,501	164,602
1999 Year	39,475	NA	1,943	5,569	7,511	7,511	141,604	188,590
2000 Year	31,905	NA	1,494	4,587	6,081	6,081	102,296	140,282
2001 January	35,489	NA	1,630	4,500	6,130	6,130	96,545	138,164
February	37,589	NA	1,766	4,413	6,178	6,178	98,220	141,987
March	39,214	NA	1,902	4,325	6,227	6,227	109,154	154,595
April	40,265	NA	1,813	4,433	6,246	6,246	118,523	165,034
May	39,568	NA	1,724	4,540	6,265	6,265	127,521	173,354
June	38,554	NA	1,635	4,648	6,283	6,283	126,683	171,521
July	39,485	NA	1,616	4,789	6,405	6,405	119,005	164,895
August	38,498	NA	1,597	4,930	6,526	6,526	113,066	158,090
September	34,822	NA	1,577	5,070	6,647	6,647	115,750	157,219
October	33,531	NA	1,506	5,382	6,888	6,888	126,747	167,166
November	32,956	NA	1,508	5,694	7,202	7,202	135,428	175,586
December	35,900	NA	1,510	6,006	7,516	7,516	138,496	181,912
2002 January	39,548	NA	1,427	5,618	7,045	7,045	R 139,400	R 185,992
February	41,589	NA	1,387	5,230	6,616	6,616	R 143,151	R 191,356
March	40,284	NA	1,360	4,842	6,202	6,202	R 146,443	R 192,929
April	44,961	NA	1,399	4,916	6,314	6,314	R 153,375	R 204,651
May	43,946	NA	1,437	4,990	6,427	6,427	R 155,313	R 205,686
June	41,288	NA	1,522	5,064	6,586	6,586	R 152,134	R 200,008
July	40,496	NA	1,535	5,321	6,856	6,856	R 142,634	R 189,985
August	36,489	NA	1,548	5,578	7,125	7,125	R 137,130	R 180,745
September	35,662	NA	1,561	5,834	7,395	7,395	R 135,962	R 179,019
October	35,191	NA	1,495	5,820	7,315	7,315	R 140,800	R 183,307
November	36,954	NA	1,430	5,806	7,236	7,236	R 144,608	R 188,797
December	43,257	NA	1,364	5,792	7,156	7,156	R 141,714	R 192,127
2003 January	F 36,498	NA	1,186	5,311	6,497	6,497	135,771	178,766
February	F 37,456	NA	1,210	4,830	6,040	6,040	128,828	172,324
March	F 38,994	NA	1,327	4,349	5,676	5,676	131,162	175,833
April	F 41,456	NA	1,376	4,288	5,664	5,664	138,895	186,016
May	F 36,789	NA	1,425	4,226	5,652	5,652	143,884	186,325
June	F 37,678	NA	1,474	4,165	5,639	5,639	142,325	185,642
July	F 35,435	NA	1,345	4,400	5,745	5,745	132,964	174,144
August	F 32,456	NA	1,215	4,636	5,850	5,850	125,725	164,031
September	F 34,973	NA	1,085	4,871	5,956	5,956	R 122,425	R 163,354
October	F 36,456	NA	F 1,424	F 4,852	F 6,277	F 6,277	F 134,079	F 176,812

^a Through 1977, data are for stocks held by the manufacturing and transportation sectors. Beginning in 1978, data are for stocks held at manufacturing plants only.

^b The electric power sector comprises electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public.

^c Through 1998, data are for stocks at electric utilities only. Beginning in 1999, data also include stocks at independent power producers.

R=Revised. NA=Not available. F=Forecast.

Notes: • Stocks are at end of period. • Producer and distributor monthly values

are estimates derived from collected quarterly and annual data; end-use sector monthly values are estimates derived from collected quarterly data; and electric power sector monthly values are data from Table 7.4. See Note 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.

Web Page: <http://www.eia.doe.gov/emeu/mer/coal.html>.

Sources: See end of section. **Forecast values:** Energy Information Administration, Short-Term Integrated Forecasting System. See Note 4 at end of section.

Coal

Note 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.

Note 2. Consumption: Coal consumption data are reported by major end-use sector. Forecast data for the most recent months (designated by an “F”) are derived from forecasted values shown in the EIA *Short-Term Energy Outlook* (DOE/EIA-0202) table titled “U.S. Coal Supply and Demand: Mid World Oil Price Case.” The monthly estimates are based on the quarterly values, which are released in March, June, September, and December. The estimates are revised quarterly as collected data become available from the data sources. Sector-specific information follows.

Residential and Commercial—Coal consumption by the residential and commercial sectors is reported to the Energy Information Administration (EIA) for the two sectors combined; EIA estimates the amount consumed by the sectors individually. To create the estimates, it is first assumed that an occupied coal-heated housing unit

consumes fuel at the same Btu rate as an oil-heated housing unit. Then, for the years in which data are available on the number of occupied housing units by heating source (1973-1981 and subsequent odd-numbered years), residential consumption of coal is estimated by the following steps: a ratio is created of the number of occupied housing units heated by coal to the number of occupied housing units heated by oil; that ratio is then multiplied times the Btu quantity of oil consumed by the residential sector to derive an estimate of the Btu quantity of coal consumed by the residential sector; and, finally, the amount estimated as the residential sector consumption is subtracted from the residential and commercial sectors’ combined consumption to derive the commercial sector’s estimated consumption. The 1999 share is applied to 2000 and succeeding years, and the other missing years’ shares are interpolated.

Industrial 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.

Industrial Other—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: food manufacturing, which is North American Industry Classification System (NAICS) code 333; paper manufacturing, NAICS 322; chemical manufacturing, NAICS 325; petroleum and coal products, NAICS 324;

nonmetallic mineral products manufacturing, NAICS 327; and primary metal manufacturing, NAICS 331. 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 Power Sector—Monthly consumption data for electric power plants are taken directly from reported data.

Note 3. Stocks: Coal stocks data are reported by major end-use sector. Forecast data for the most recent months (designated by an “F”) are derived from forecasted values shown in the EIA *Short-Term Energy Outlook* (DOE/EIA-0202) table titled “U.S. Coal Supply and Demand: Mid World Oil Price Case.” The monthly estimates are based on the quarterly values, which are released in March, June, September, and December. The estimates are revised quarterly as collected data become available from the data sources. Sector-specific information follows.

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.

Residential and Commercial—Prior to 1980, stock estimates for the residential and commercial sector were taken directly from reported data. Beginning in 1980, stock estimates for the sector were considered to be statistically insignificant and are no longer collected.

Industrial 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.

Industrial Other—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 Power—Monthly stocks data at electric power plants are taken directly from reported data.

Other Power Producers—Annual stocks data are taken directly from reported data. Monthly data are estimated by EIA based on industry analysis.

Note 4. 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 coal forecast relies on other variables as well, such as alternative fuel prices (natural gas and oil) and power generation by sources other than fossil fuels, including nuclear and hydroelectric power. Each month, EIA staff review the model output and make adjustments, if appropriate, based on their knowledge of developments in the coal industry.

The STIFS model results are published monthly 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.

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

Table 6.1 Sources

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 (EIA), *Weekly Coal Production*.

Waste Coal

EIA, Form EIA-860B, “Annual Electric Generator Report-Nonutility” and predecessor form.

Imports and Exports

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

Stocks Change

Calculated from data in Table 6.3.

Losses and Unaccounted for

Calculated.

Consumption

Table 6.2.

Table 6.2 Sources

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.”

1980–1997: EIA, Form EIA-6, “Coal Distribution Report,” quarterly.

1998 forward: DOI, Mine Safety and Health Administration, Form 7000-2, “Quarterly Mine Employment and Coal Production.”

Industrial 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.”

Industrial Other

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.

Transportation

1973–1976: DOI, BOM, *Minerals Yearbook*.

January–September 1977: DOI, BOM, Form 6-1400, “Monthly Coal Report, Retail Dealers-Upper Lake Docks.”

October–December 1977: EIA, Form EIA-6, “Coal Distribution Report,” quarterly.

Electric Power

1973–September 1977: DOI, BOM, *Minerals Yearbook* and *Minerals Industry Surveys*.

October 1977–1988: EIA, Form EIA-759 (formerly Form FPC-4), “Monthly Power Plant Report.”

1989–2000: Table 7.3b

2001 forward: EIA, Form EIA-906, “Power Plant Report.”

Table 6.3 Sources

Producers and Distributors

1973–1979: DOI, BOM, Form 6-1419Q, “Distribution of Bituminous Coal and Lignite Shipments.”

1980 forward: Energy Information Administration (EIA), Form EIA-6, “Coal Distribution Report,” quarterly.

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: EIA, Form EIA-2, “Monthly Coal Report, Retail Dealers-Upper Lake Docks.”

Industrial 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.”

Industrial Other

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.”

Electric Power

Table 7.4.

Section 7. Electricity

Overview. In 2002, net generation of electricity totaled 3.9 trillion kilowatthours, up 3 percent compared with the total in 2001. Of the total generated, 96 percent came from the electric power sector; 4 percent was generated by combined-heat-and power plants and electricity-only plants in the industrial and commercial sectors. The Nation imported 36 billion kilowatthours and exported 13 billion kilowatthours of electricity in 2002.

Net Generation. In October 2003, total net generation of electricity was forecast as 300 billion kilowatthours, 2 percent lower than in October 2002.

Consumption of Combustible Fuels. The consumption of coal for electricity generation and useful thermal output by all sectors was forecast as 80 million short tons in October 2003, 4 percent lower than in October 2002. Total petroleum consumption was forecast as 13 million barrels, 19 percent lower than a year earlier, and natural gas consumption was forecast as 526 billion cubic feet, 4 percent lower

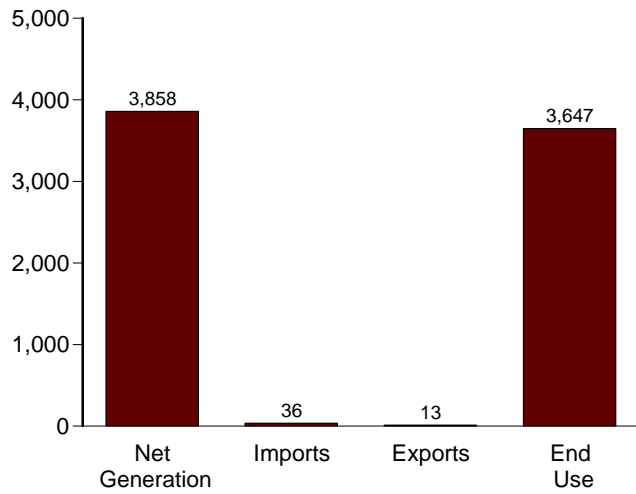
than a year ago.

Stocks of Coal and Petroleum. Stocks of coal held by the electric power sector in October 2003 were forecast as 134 million short tons, 5 percent below the level held a year earlier. Total petroleum was forecast as 49 million barrels in October 2003, 2 percent lower than a year earlier.

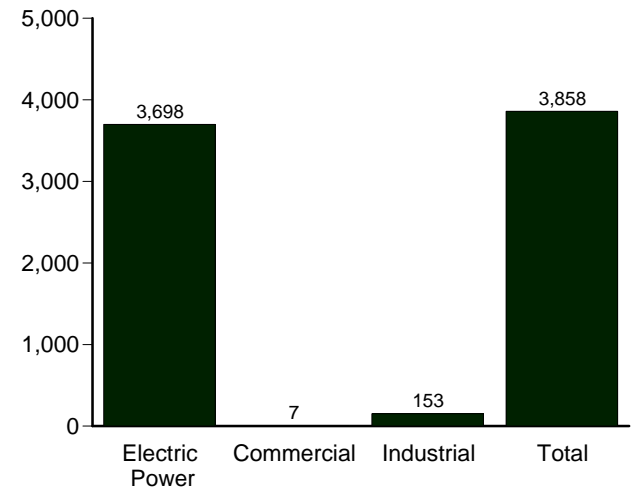
Retail Sales of Electricity. Total retail sales of electricity in October 2003 were forecast as 278 billion kilowatthours, 2 percent less than sales in October 2002. Sales to residential users in October 2003 were forecast as 92 billion kilowatt-hours, 2 percent lower than a year ago; commercial sector sales were forecast as 92 billion kilowatt-hours, 4 percent lower than a year ago; and industrial sector sales were forecast as 85 billion kilowatthours, 2 percent higher than a year ago.

Figure 7.1 Electricity Overview
(Billion Kilowatthours)

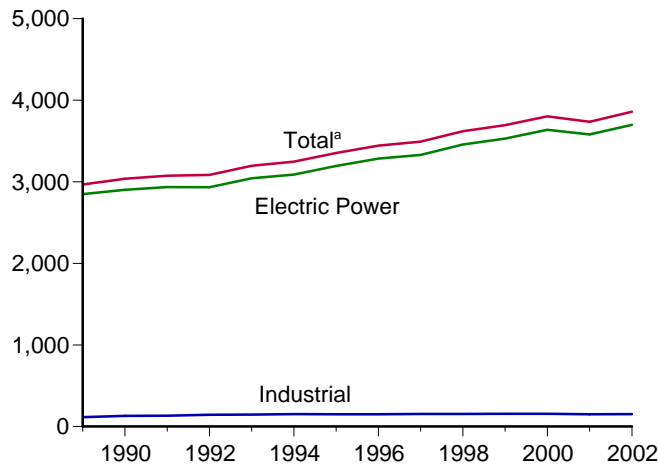
Overview, 2002



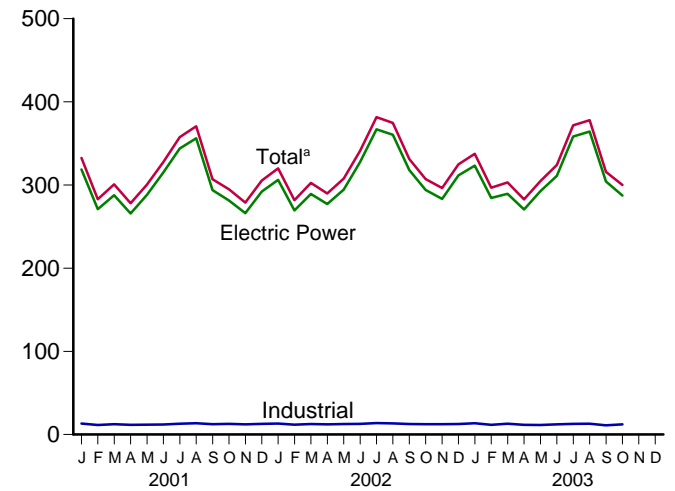
Net Generation, 2002



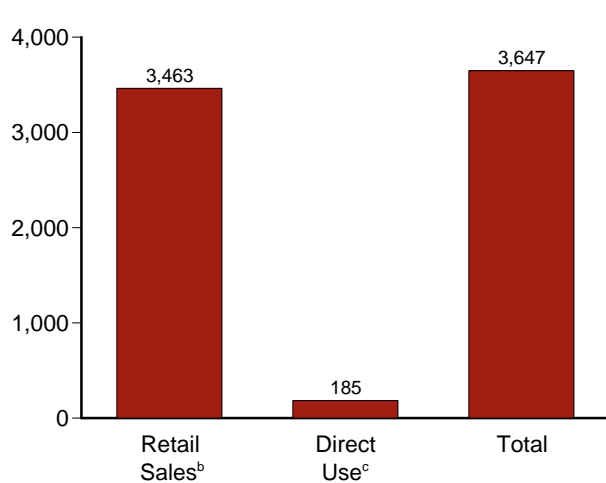
Net Generation by Sector, 1989-2002



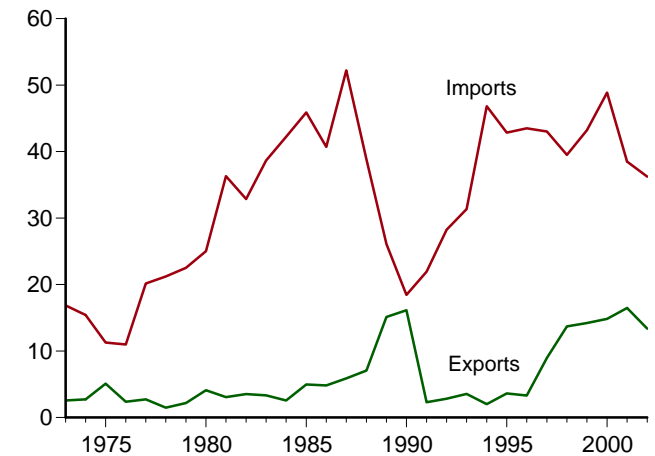
Net Generation by Sector, Monthly



End Use, 2002



Trade, 1973-2002



^aIncludes commercial sector.

^bElectricity retail sales to ultimate customers reported by electric utilities and other energy service providers.

^cCommercial and industrial facility use of onsite net electricity generation;

and electricity sales among adjacent or co-located facilities for which revenue information is not available.

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

Web Page: <http://www.eia.doe.gov/emeu/mer/elect.html>.

Sources: Table 7.1.

Table 7.1 Electricity Overview
(Billion Kilowatthours)

	Net Generation				Imports ^d	Exports ^d	Losses and Unaccounted for ^e	End Use		
	Electric Power Sector ^a	Commercial Sector ^b	Industrial Sector ^c	Total				Retail Sales ^f	Direct Use ^g	Total
1973 Total	1,861	NA	3	1,864	17	3	165	1,713	NA	1,713
1974 Total	1,867	NA	3	1,870	15	3	177	1,706	NA	1,706
1975 Total	1,918	NA	3	1,921	11	5	180	1,747	NA	1,747
1976 Total	2,038	NA	3	2,041	11	2	194	1,855	NA	1,855
1977 Total	2,124	NA	3	2,127	20	3	197	1,948	NA	1,948
1978 Total	2,206	NA	3	2,209	21	1	211	2,018	NA	2,018
1979 Total	2,247	NA	3	2,251	23	2	200	2,071	NA	2,071
1980 Total	2,286	NA	3	2,290	25	4	216	2,094	NA	2,094
1981 Total	2,295	NA	3	2,298	36	3	184	2,147	NA	2,147
1982 Total	2,241	NA	3	2,244	33	4	187	2,086	NA	2,086
1983 Total	2,310	NA	3	2,313	39	3	198	2,151	NA	2,151
1984 Total	2,416	NA	3	2,419	42	3	173	2,286	NA	2,286
1985 Total	2,470	NA	3	2,473	46	5	190	2,324	NA	2,324
1986 Total	2,487	NA	3	2,490	41	5	158	2,369	NA	2,369
1987 Total	2,572	NA	3	2,575	52	6	164	2,457	NA	2,457
1988 Total	2,704	NA	3	2,707	39	7	161	2,578	NA	2,578
1989 Total	2,848	4	115	2,967	26	15	223	2,647	108	2,755
1990 Total	2,901	6	131	3,038	18	16	214	2,713	114	2,827
1991 Total	2,936	6	133	3,074	22	2	213	2,762	118	2,880
1992 Total	2,934	6	143	3,084	28	3	224	2,763	122	2,886
1993 Total	3,044	7	146	3,197	31	4	236	2,861	128	2,989
1994 Total	3,089	8	151	3,248	47	2	224	2,935	134	3,069
1995 Total	3,194	8	151	3,353	43	4	235	3,013	144	3,157
1996 Total	3,284	9	151	3,444	43	3	237	3,101	146	3,247
1997 Total	3,329	9	154	3,492	43	9	232	3,146	148	3,294
1998 Total	3,457	9	154	3,620	40	14	221	3,264	161	3,425
1999 Total	3,530	9	156	3,695	43	14	229	3,312	183	3,495
2000 Total	3,638	8	157	3,802	49	15	231	3,421	183	3,605
2001 January	319	1	13	332	3	2	9	309	E 16	325
February	271	1	11	283	3	3	-2	271	E 14	285
March	288	1	12	301	4	2	20	267	E 16	283
April	266	1	12	278	4	1	13	253	E 15	268
May	288	1	12	300	4	2	26	261	E 16	277
June	315	1	12	328	4	1	27	288	E 15	303
July	344	1	13	358	4	1	31	314	E 16	329
August	356	1	14	371	4	1	28	330	E 16	346
September	294	1	12	307	2	1	-1	294	E 15	309
October	281	1	13	295	2	1	15	265	E 16	281
November	266	1	12	279	2	1	14	251	E 15	267
December	292	1	13	305	3	1	26	266	E 16	282
Total	3,580	7	149	3,737	39	16	205	3,370	E 184	3,554
2002 January	R 306	1	R 13	R 320	3		R 15	R 292	E 16	R 308
February	R 269	R (s)	12	R 282	3	1	R 5	R 264	E 14	R 278
March	R 289	1	13	R 303	3	2	R 21	R 267	E 16	R 283
April	R 277	1	12	R 290	3	1	R 18	R 259	E 15	R 274
May	R 295	1	13	R 308	2	2	R 24	R 269	E 16	R 285
June	R 328	1	13	R 341	3	1	R 30	R 298	E 15	R 313
July	R 367	1	14	R 382	4	1	R 32	R 337	E 16	R 353
August	R 360	1	R 13	R 375	4	1	R 24	R 338	E 16	R 354
September	R 318	1	13	R 331	3	1	R 8	R 309	E 15	R 325
October	R 294	1	12	R 307	2	1	R 10	R 283	E 16	R 298
November	R 283	1	12	R 296	2	1	R 20	R 262	E 15	R 277
December	R 312	1	R 13	R 325	2	1	R 26	R 284	E 16	R 299
Total	R 3,698	R 7	R 153	R 3,858	36	13	R 234	R 3,463	E 185	R 3,647
2003 January	323	1	14	338	3	1	15	308	E 16	324
February	284	1	12	297	3	2	1	283	E 14	297
March	289	1	13	303	3	3	13	274	E 16	290
April	270	1	12	283	3	2	12	256	E 15	271
May	292	1	11	305	3	2	20	269	E 16	285
June	311	1	12	324	3	2	20	289	E 15	305
July	358	1	13	372	4	1	25	334	E 16	349
August	364	1	13	378	4	1	23	341	E 16	357
September	R 304	1	R 11	R 316	2	2	R -7	307	E 15	323
October	F 287	F 1	F 12	F 300	1	3	F 4	F 278	E 16	F 294
10-Month Total	E 3,085	E 7	E 123	E 3,214	26	20	E 127	E 2,940	E 154	E 3,094
2002 10-Month Total	3,104	6	128	3,237	32	11	188	2,917	E 154	3,071
2001 10-Month Total	3,022	6	124	3,152	33	15	165	2,852	E 153	3,005

^a The electric power sector comprises electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public.

^b Commercial combined-heat-and-power (CHP) and commercial electricity-only plants. See note at end of section.

^c Industrial combined-heat-and-power (CHP) and industrial electricity-only plants. See note at end of section. Through 1988, includes industrial hydroelectric power only.

^d Electricity transmitted across U.S. borders with Canada and Mexico.

^e Energy losses that occur between the point of generation and delivery to the customer, and data collection frame differences and nonsampling error. See Note 12 at end of Section 2 for discussion on electrical system energy losses.

^f Electricity retail sales to ultimate customers reported by electric utilities and other energy

service providers.

^g Commercial and industrial facility use of onsite net electricity generation; and electricity sales among adjacent or co-located facilities for which revenue information is not available.

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

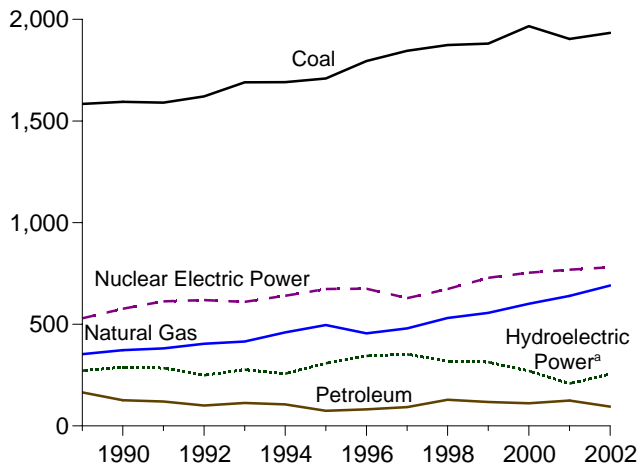
Web Page: <http://www.eia.doe.gov/emeu/mer/elect.html>.

Sources: • **Net Generation:** Tables 7.2a-7.2c. • **Imports and Exports:** See end of section.

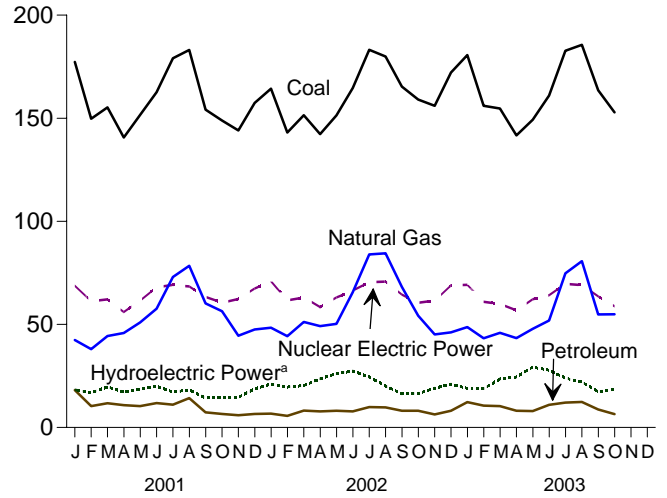
• **Losses and Unaccounted for:** Calculated as the sum of total net generation and imports minus total end use and exports. • **End Use:** Table 7.5. • **Forecast Values:** Energy Information Administration, Short-Term Integrated Forecasting System. See Note 10 at end of Section 4 for related information.

Figure 7.2 Electricity Net Generation
(Billion Kilowatthours)

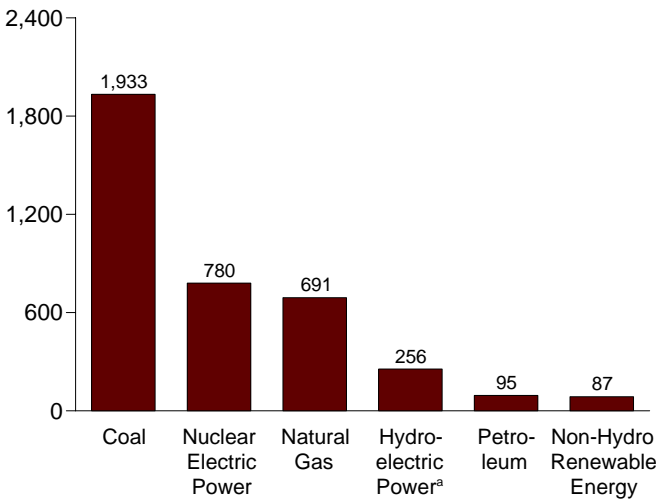
Total (All Sectors), Major Sources, 1989-2002



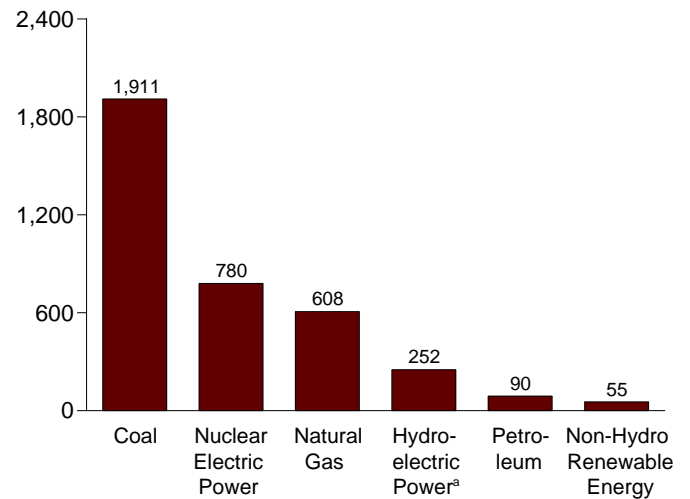
Total (All Sectors), Major Sources, Monthly



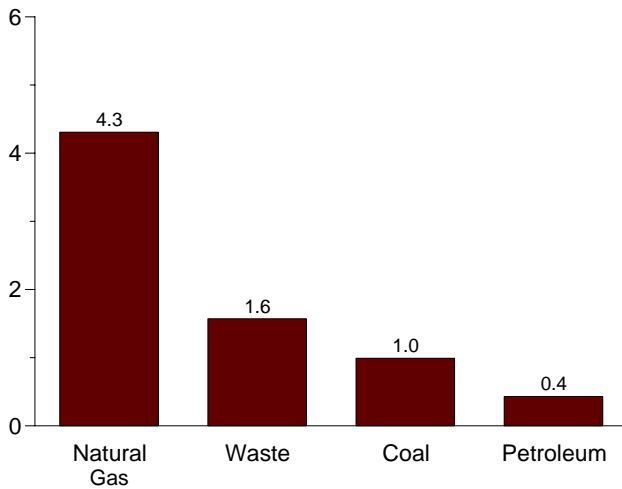
Total (All Sectors), Major Sources, 2002



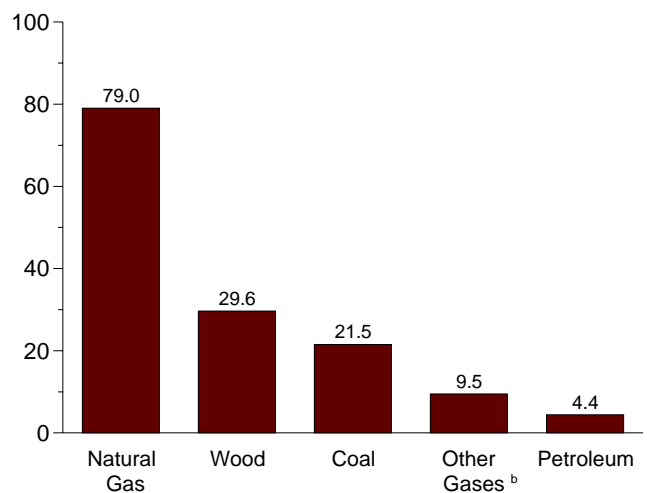
Electric Power Sector, Major Sources, 2002



Commercial Sector, Major Sources, 2002



Industrial Sector, Major Sources, 2002



^aConventional and pumped storage hydroelectric power.

^bBlast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

Note: Because vertical scales differ, graphs should not be compared.
Web Page: <http://www.eia.doe.gov/emeu/mer/elect.html>
Sources: Tables 7.2a, 7.2b, and 7.2c.

Table 7.2a Electricity Net Generation: Total (All Sectors)
(Million Kilowatthours)

	Fossil Fuels				Nuclear Electric Power	Hydro- electric Pumped Storage ^e	Renewable Energy					Total ⁱ	
	Coal ^a	Petro- leum ^b	Natural Gas ^c	Other Gases ^d			Conven- tional Hydro- electric Power	Wood ^f	Waste ^g	Geo- thermal	Solar ^h		Wind
1973 Total	847,651	314,343	340,858	NA	83,479	(j)	275,431	130	198	1,966	NA	NA	1,864,057
1974 Total	828,433	300,931	320,065	NA	113,976	(j)	304,212	69	182	2,453	NA	NA	1,870,319
1975 Total	852,786	289,095	299,778	NA	172,505	(j)	303,153	18	174	3,246	NA	NA	1,920,755
1976 Total	944,391	319,988	294,624	NA	191,104	(j)	286,924	84	182	3,616	NA	NA	2,040,914
1977 Total	985,219	358,179	305,505	NA	250,883	(j)	223,599	308	173	3,582	NA	NA	2,127,447
1978 Total	975,742	365,060	305,391	NA	276,403	(j)	283,465	197	140	2,978	NA	NA	2,209,377
1979 Total	1,075,037	303,525	329,485	NA	255,155	(j)	283,076	300	198	3,889	NA	NA	2,250,665
1980 Total	1,161,562	245,994	346,240	NA	251,116	(j)	279,182	275	158	5,073	NA	NA	2,289,600
1981 Total	1,203,203	206,421	345,777	NA	272,674	(j)	263,845	245	123	5,686	NA	NA	2,297,973
1982 Total	1,192,004	146,797	305,260	NA	282,773	(j)	312,374	196	125	4,843	NA	NA	2,244,372
1983 Total	1,259,424	144,499	274,098	NA	293,677	(j)	335,291	216	163	6,075	NA	3	2,313,446
1984 Total	1,341,681	119,808	297,394	NA	327,634	(j)	324,311	461	425	7,741	5	6	2,419,465
1985 Total	1,402,128	100,202	291,946	NA	383,691	(j)	284,311	743	640	9,325	11	6	2,473,002
1986 Total	1,385,831	136,585	248,508	NA	414,038	(j)	294,005	492	685	10,308	14	4	2,490,471
1987 Total	1,463,781	118,493	272,621	NA	455,270	(j)	252,856	783	694	10,775	10	4	2,575,288
1988 Total	1,540,653	148,900	252,801	NA	526,973	(j)	226,101	936	738	10,300	9	1	2,707,411
1989 Total ^k	1,583,779	164,518	352,629	7,862	529,355	(j)	271,977	27,237	9,163	14,593	251	2,112	2,967,306
1990 Total	1,594,011	126,621	372,765	10,383	576,862	-3,508	292,866	32,522	13,260	15,434	367	2,789	3,037,988
1991 Total	1,590,623	119,752	381,553	11,336	612,565	-4,541	288,994	33,725	15,665	15,966	472	2,951	3,073,799
1992 Total	1,621,206	100,154	404,074	13,270	618,776	-4,177	253,088	36,529	17,816	16,138	400	2,888	3,083,882
1993 Total	1,690,070	112,788	414,927	12,956	610,291	-4,036	280,494	37,623	18,333	16,789	462	3,006	3,197,191
1994 Total	1,690,694	105,901	460,219	13,319	640,440	-3,378	260,126	37,937	19,129	15,535	487	3,447	3,247,522
1995 Total	1,709,426	74,554	496,058	13,870	673,402	-2,725	310,833	36,521	20,405	13,378	497	3,164	3,353,487
1996 Total	1,795,196	81,411	455,056	14,356	674,729	-3,088	347,162	36,800	20,911	14,329	521	3,234	3,444,188
1997 Total	1,845,016	92,555	479,399	13,351	628,644	-4,040	356,453	36,948	21,709	14,726	511	3,288	3,492,172
1998 Total	1,873,516	128,800	531,257	13,492	673,702	-4,467	323,336	36,338	22,448	14,774	502	3,026	3,620,295
1999 Total	1,881,087	118,061	556,396	14,126	728,254	-6,097	319,536	37,041	22,572	14,827	495	4,488	3,694,810
2000 Total	1,966,265	111,221	601,038	13,955	753,893	-5,539	275,573	37,595	23,131	14,093	493	5,593	3,802,105
2001 January	177,287	18,112	42,389	718	68,707	-589	18,852	3,191	1,819	1,229	7	389	332,493
February	149,735	10,342	37,967	676	61,272	-707	17,473	2,697	1,636	1,073	13	431	282,940
March	155,269	11,733	44,364	769	62,141	-773	20,477	2,853	1,779	1,190	31	532	300,707
April	140,671	10,863	45,843	698	56,003	-796	18,013	2,821	1,783	1,095	39	685	278,079
May	151,593	10,390	50,934	785	61,512	-623	19,176	2,740	1,826	1,071	81	635	300,492
June	162,616	11,823	57,603	733	68,023	-774	20,728	2,891	1,841	1,088	91	670	327,694
July	179,060	11,042	73,030	840	69,166	-871	18,079	3,053	1,913	1,179	92	635	357,614
August	183,116	14,229	78,410	848	68,389	-715	18,914	3,179	1,905	1,167	85	577	370,533
September	154,158	7,342	60,181	767	63,378	-928	15,256	2,874	1,788	1,139	65	490	306,929
October	148,931	6,534	56,376	737	60,461	-615	15,235	3,046	1,809	1,162	21	607	294,734
November	144,117	5,931	44,491	699	62,342	-811	15,413	2,879	1,784	1,157	14	470	278,934
December	157,402	6,539	47,541	770	67,431	-623	19,346	2,975	1,882	1,190	4	616	305,696
Total	1,903,956	124,880	639,129	9,039	768,826	-8,823	216,961	35,200	21,765	13,741	543	6,737	3,736,444
2002 January	R 164,358	R 6,690	R 48,413	R 923	70,926	R -750	R 21,795	R 3,255	R 1,879	R 1,287	11	R 811	R 319,941
February	R 143,049	R 5,664	R 44,308	R 760	61,658	R -586	R 20,192	R 2,844	R 1,666	R 1,132	24	R 714	R 281,826
March	R 151,486	R 8,217	R 51,214	R 904	63,041	R -684	R 21,009	R 2,961	R 1,901	R 1,245	R 44	R 852	R 302,549
April	R 142,305	R 7,834	R 49,146	R 890	58,437	R -585	R 24,247	R 3,196	R 1,771	R 1,115	46	R 1,024	R 289,848
May	R 151,406	R 8,127	R 50,275	R 910	63,032	R -539	R 26,663	R 3,161	R 1,925	R 1,216	58	R 1,078	R 307,675
June	R 164,668	R 7,796	R 65,631	R 1,009	66,372	R -863	R 28,213	R 3,395	R 1,969	R 1,151	96	R 1,126	R 341,023
July	R 183,195	R 9,913	R 83,917	R 1,071	70,421	R -998	R 25,471	R 3,440	R 2,088	R 1,262	86	R 890	R 381,542
August	R 179,955	R 9,737	R 84,477	R 1,117	70,778	R -935	R 21,084	R 3,369	R 2,096	R 1,227	75	R 977	R 374,586
September	R 165,366	R 8,075	R 68,161	R 1,053	64,481	R -777	R 17,887	R 3,313	R 1,941	R 1,195	53	R 736	R 331,279
October	R 159,099	R 8,116	R 54,201	R 908	60,493	R -681	R 17,171	R 3,346	R 1,837	R 1,235	31	R 734	R 307,059
November	R 156,054	R 6,287	R 45,161	R 894	61,520	R -666	R 19,730	R 3,161	R 1,849	R 1,189	28	R 656	R 296,290
December	R 172,190	R 8,112	R 46,100	R 1,025	68,905	R -680	R 21,669	R 3,222	R 1,934	R 1,236	4	R 755	R 324,834
Total	R 1,933,130	R 94,567	R 691,006	R 11,463	780,064	R -8,743	R 264,329	R 38,665	R 22,857	R 14,491	R 555	R 10,354	R 3,858,452
2003 January	180,632	12,338	48,684	908	69,211	-760	19,714	2,976	1,741	1,144	13	558	337,504
February	156,063	10,560	43,291	730	60,942	-774	19,630	2,681	1,619	1,028	18	692	296,735
March	154,690	10,323	45,901	900	59,933	-797	24,349	3,151	1,928	1,118	50	1,008	303,087
April	141,676	8,148	43,341	734	56,776	-554	25,002	2,992	1,905	1,043	60	1,099	282,721
May	149,296	7,971	47,854	757	62,194	-619	29,928	2,792	1,923	1,035	68	891	304,550
June	161,009	10,968	51,899	863	64,181	-780	28,500	2,942	1,917	1,092	91	964	324,042
July	182,761	12,102	74,809	898	69,653	-755	24,681	3,109	2,027	1,099	63	917	371,782
August	185,595	12,345	80,665	818	69,024	-818	22,837	3,009	1,965	1,096	62	779	377,929
September	R 163,589	R 8,716	R 54,833	R 830	R 63,584	R -785	R 18,215	R 2,714	R 1,770	R 1,086	56	R 824	R 315,800
October	F 152,840	F 6,492	F 54,925	F 843	F 58,814	F -780	F 19,200	F 2,954	F 1,879	F 1,118	F 27	F 973	F 300,026
10-Month Total	E 1,628,152	E 99,963	E 546,203	E 8,281	E 634,311	E -7,423	E 232,056	E 29,318	E 18,674	E 10,859	E 508	E 8,703	E 3,214,173
2002 10-Month Total	1,604,887	80,169	599,744	9,543	649,638	-7,397	222,930	32,281	19,073	12,066	522	8,943	3,237,329
2001 10-Month Total	1,602,437	112,410	547,098	7,571	639,054	-7,390	182,202	29,345	18,099	11,393	524	5,651	3,152,213

^a Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.
^b Distillate fuel oil, residual fuel oil, petroleum coke, jet fuel, kerosene, other petroleum, and waste oil.
^c Natural gas, including a small amount of supplemental gaseous fuels.
^d Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.
^e Pumped storage facility production minus energy used for pumping.
^f Wood, black liquor, and other wood waste.
^g Municipal solid waste, landfill gas, sludge waste, tires, agricultural byproducts, and other biomass.
^h Solar thermal and photovoltaic energy.
ⁱ "Total" includes batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, and

miscellaneous technologies, which are not separately displayed.
^j Included in "Conventional Hydroelectric Power."
^k Hydroelectric data through 1988 are for generation at electric utilities and industrial plants only; beginning in 1989, data also include generation at independent power producers and commercial plants. For all other series, data through 1988 are for generation at electric utilities only; beginning in 1989, data also include generation at independent power producers, commercial plants, and industrial plants.
 R=Revised, E=Estimate, NA=Not available, 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.
 Web Page: <http://www.eia.doe.gov/emeu/mer/elect.html>
 Sources: See sources for Tables 7.2b and 7.2c.

Table 7.2b Electricity Net Generation: Electric Power Sector
(Million Kilowatthours)

	Fossil Fuels				Nuclear Electric Power	Hydroelectric Pumped Storage ^e	Renewable Energy						Total ⁱ
	Coal ^a	Petroleum ^b	Natural Gas ^c	Other Gases ^d			Conventional Hydroelectric Power	Wood ^f	Waste ^g	Geothermal	Solar ^h	Wind	
1973 Total	847,651	314,343	340,858	NA	83,479	()	272,083	130	198	1,966	NA	NA	1,860,710
1974 Total	828,433	300,931	320,065	NA	113,976	()	301,032	69	182	2,453	NA	NA	1,867,139
1975 Total	852,786	289,095	299,778	NA	172,505	()	300,047	18	174	3,246	NA	NA	1,917,649
1976 Total	944,391	319,988	294,624	NA	191,104	()	283,707	84	182	3,616	NA	NA	2,037,696
1977 Total	985,219	358,179	305,505	NA	250,883	()	220,475	308	173	3,582	NA	NA	2,124,323
1978 Total	975,742	365,060	305,391	NA	276,403	()	280,419	197	140	2,978	NA	NA	2,206,331
1979 Total	1,075,037	303,525	329,485	NA	255,155	()	279,783	300	198	3,889	NA	NA	2,247,372
1980 Total	1,161,562	245,994	346,240	NA	251,116	()	276,021	275	158	5,073	NA	NA	2,286,439
1981 Total	1,203,203	206,421	345,777	NA	272,674	()	260,684	245	123	5,686	NA	NA	2,294,812
1982 Total	1,192,004	146,797	305,260	NA	282,773	()	309,213	196	125	4,843	NA	NA	2,241,211
1983 Total	1,259,424	144,499	274,098	NA	293,677	()	332,130	216	163	6,075	NA	3	2,310,285
1984 Total	1,341,681	119,808	297,394	NA	327,634	()	321,150	461	425	7,741	5	6	2,416,304
1985 Total	1,402,128	100,202	291,946	NA	383,691	()	281,149	743	640	9,325	11	6	2,469,841
1986 Total	1,385,831	136,585	248,508	NA	414,038	()	290,844	492	685	10,308	14	4	2,487,310
1987 Total	1,463,781	118,493	272,621	NA	455,270	()	249,695	783	694	10,775	10	4	2,572,127
1988 Total	1,540,653	148,900	252,801	NA	526,973	()	222,940	936	738	10,300	9	1	2,704,250
1989 Total ^k	1,562,366	159,005	297,295	454	529,355	()	269,189	5,582	7,743	14,593	251	2,112	2,848,227
1990 Total	1,572,109	118,864	309,486	621	576,862	-3,508	289,753	7,032	11,500	15,434	367	2,789	2,901,322
1991 Total	1,568,846	112,798	317,773	719	612,565	-4,541	286,019	7,736	13,854	15,966	472	2,951	2,935,561
1992 Total	1,597,714	92,238	334,274	1,212	618,776	-4,177	250,016	8,491	15,924	16,138	400	2,888	2,934,374
1993 Total	1,665,464	105,425	342,222	967	610,291	-4,036	277,524	9,152	16,223	16,789	462	3,006	3,043,897
1994 Total	1,666,276	98,677	385,689	1,092	640,440	-3,378	254,005	9,232	16,984	15,535	487	3,447	3,088,725
1995 Total	1,686,056	68,146	419,179	1,927	673,402	-2,725	305,410	7,597	17,986	13,378	497	3,164	3,194,230
1996 Total	1,771,973	74,783	378,757	1,341	674,729	-3,088	341,159	8,386	17,816	14,329	521	3,234	3,284,141
1997 Total	1,820,762	86,479	399,596	1,533	628,644	-4,040	350,648	8,680	18,485	14,726	511	3,288	3,329,375
1998 Total	1,850,193	122,211	449,293	2,315	673,702	-4,467	317,867	8,608	19,233	14,774	502	3,026	3,457,416
1999 Total	1,858,618	111,539	472,996	1,607	728,254	-6,097	314,663	8,961	19,493	14,827	495	4,488	3,529,982
2000 Total	1,943,111	105,192	517,978	2,028	753,893	-5,539	271,338	8,916	20,307	14,093	493	5,593	3,637,529
2001 January	175,303	17,396	35,261	40	68,707	-589	18,611	757	1,624	1,229	7	389	318,736
February	148,059	9,817	31,636	42	61,272	-707	17,232	625	1,478	1,073	13	431	270,971
March	153,452	11,207	37,453	45	62,141	-773	20,133	678	1,611	1,190	31	532	287,700
April	139,034	10,416	39,413	43	56,003	-796	17,723	616	1,585	1,095	39	685	265,855
May	150,043	9,934	44,283	51	61,512	-623	18,875	659	1,643	1,071	81	635	288,166
June	160,888	11,413	50,854	51	68,023	-774	20,430	756	1,658	1,088	91	670	315,148
July	177,142	10,587	65,546	59	69,166	-871	17,832	748	1,719	1,179	92	635	343,834
August	181,053	13,771	70,693	57	68,389	-715	18,593	767	1,714	1,167	85	577	356,152
September	152,450	6,926	53,012	47	63,378	-928	15,009	702	1,592	1,139	65	490	293,882
October	147,218	6,081	49,147	44	60,461	-615	15,024	631	1,610	1,162	21	607	281,391
November	142,473	5,520	37,494	46	62,342	-811	15,211	655	1,584	1,157	14	470	266,155
December	155,711	6,082	40,147	60	67,431	-623	19,076	701	1,667	1,190	4	616	292,063
Total	1,882,826	119,149	554,940	586	768,826	-8,823	213,749	8,294	19,486	13,741	543	6,737	3,580,053
2002 January	R 162,521	R 6,265	R 40,827	R 201	70,926	R -750	R 21,498	R 805	R 1,665	R 1,287	11	R 811	R 306,171
February	R 141,430	R 5,300	R 37,533	R 107	61,658	R -586	R 19,912	R 652	R 1,481	R 1,132	24	R 714	R 269,476
March	R 149,724	R 7,826	R 43,875	R 160	63,041	R -684	R 20,732	R 776	R 1,688	R 1,245	R 44	R 852	R 289,322
April	R 140,498	R 7,463	R 42,701	R 131	58,437	R -585	R 23,929	R 661	R 1,562	R 1,115	46	R 1,024	R 277,126
May	R 149,646	R 7,767	R 43,200	R 128	63,032	R -539	R 26,375	R 702	R 1,694	R 1,216	58	R 1,078	R 294,517
June	R 162,736	R 7,428	R 58,686	R 140	66,372	R -863	R 27,957	R 749	R 1,742	R 1,151	96	R 1,126	R 327,553
July	R 181,001	R 9,504	R 76,391	R 198	70,421	R -998	R 25,196	R 801	R 1,840	R 1,262	86	R 890	R 366,980
August	R 177,962	R 9,350	R 76,936	R 202	70,778	R -935	R 20,806	R 779	R 1,836	R 1,227	75	R 977	R 360,351
September	R 163,497	R 7,703	R 61,381	R 181	64,481	R -777	R 16,839	R 808	R 1,699	R 1,195	53	R 736	R 317,976
October	R 157,195	R 7,690	R 47,932	R 171	60,493	R -681	R 16,828	R 739	R 1,624	R 1,235	31	R 734	R 294,096
November	R 154,172	R 5,817	R 38,737	R 165	61,520	R -666	R 19,282	R 756	R 1,619	R 1,189	28	R 656	R 283,374
December	R 170,231	R 7,620	R 39,484	R 186	68,905	R -680	R 21,138	R 782	R 1,732	R 1,236	4	R 755	R 311,516
Total	R 1,910,613	R 89,733	R 607,683	R 1,970	780,064	R -8,743	R 260,491	R 9,009	R 20,180	R 14,491	R 555	R 10,354	R 3,698,458
2003 January	178,525	11,653	41,058	111	69,211	-760	19,295	820	1,534	1,144	13	558	323,210
February	154,267	10,021	36,778	97	60,942	-774	19,263	700	1,429	1,028	18	692	284,466
March	152,801	9,805	39,085	99	59,933	-797	23,816	754	1,673	1,118	50	1,008	289,424
April	139,899	7,743	37,302	123	56,776	-554	24,577	703	1,657	1,043	60	1,099	270,496
May	147,568	7,541	41,967	105	62,194	-619	29,367	604	1,670	1,035	68	891	292,431
June	159,239	10,500	45,284	94	64,181	-780	27,995	688	1,671	1,092	91	964	311,065
July	180,771	11,630	67,944	92	69,653	-755	24,173	819	1,782	1,099	63	917	358,244
August	183,600	11,895	73,491	90	69,024	-818	22,331	835	1,706	1,096	62	779	364,220
September	R 161,900	R 8,346	R 49,084	R 94	R 63,584	R -785	R 17,783	R 721	R 1,517	R 1,086	56	R 824	R 304,244
October	F 151,070	F 6,117	F 48,592	F 134	F 58,814	F -780	F 18,835	F 680	F 1,652	F 1,118	F 27	F 973	F 287,282
10-Month Total	E 1,609,640	E 95,252	E 480,585	E 1,039	E 634,311	E -7,423	E 227,435	E 7,324	E 16,291	E 10,859	E 508	E 8,703	E 3,085,083
2002 10-Month Total	1,586,210	76,296	529,463	1,619	649,638	-7,397	220,072	7,471	16,830	12,066	522	8,943	3,103,569
2001 10-Month Total	1,584,642	107,547	477,299	480	639,054	-7,390	179,462	6,938	16,235	11,393	524	5,651	3,021,835

a Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.
 b Distillate fuel oil, residual fuel oil, petroleum coke, jet fuel, kerosene, other petroleum, and waste oil.
 c Natural gas, including a small amount of supplemental gaseous fuels.
 d Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.
 e Pumped storage facility production minus energy used for pumping.
 f Wood, black liquor, and other wood waste.
 g Municipal solid waste, landfill gas, sludge waste, tires, agricultural byproducts, and other biomass.
 h Solar thermal and photovoltaic energy.
 i "Total" includes batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, and

miscellaneous technologies, which are not separately displayed.
 j Included in "Conventional Hydroelectric Power."
 k Through 1988, data are for generation at electric utilities only. Beginning in 1989, data also include generation at independent power producers.
 R=Revised, E=Estimate, NA=Not available, F=Forecast.
 Notes: • The electric power sector comprises electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia.
 Web Page: <http://www.eia.doe.gov/emeu/mer/elect.html>.
 Sources: See end of section.

Table 7.2c Electricity Net Generation: Commercial and Industrial Sectors
(Million Kilowatthours)

	Commercial Sector ^a					Industrial Sector ^b							
	Coal ^c	Petro-leum ^d	Natural Gas ^e	Waste ^f	Total ^g	Coal ^c	Petro-leum ^d	Natural Gas ^e	Other Gases ^h	Hydro-power ⁱ	Wood ^j	Waste ^f	Total ^k
1989 Total	736	558	2,155	527	4,251	20,677	4,955	53,179	7,297	2,722	21,557	893	114,828
1990 Total	796	589	3,272	812	5,837	21,107	7,169	60,007	9,641	2,975	25,379	949	130,830
1991 Total	775	413	3,213	883	5,659	21,002	6,540	60,567	10,501	2,844	25,863	927	132,579
1992 Total	749	302	3,867	961	6,228	22,743	7,615	65,933	11,953	2,950	27,916	932	143,280
1993 Total	864	334	4,471	1,018	7,000	23,742	7,028	68,234	11,890	2,871	28,358	1,092	146,294
1994 Total	850	417	4,929	1,162	7,619	23,568	6,808	69,600	12,112	6,028	28,650	983	151,178
1995 Total	998	379	5,162	1,519	8,232	22,372	6,030	71,717	11,943	5,304	28,868	900	151,025
1996 Total	1,051	369	5,249	2,176	9,030	22,172	6,260	71,049	13,015	5,878	28,354	919	151,017
1997 Total	1,040	427	4,725	2,342	8,701	23,214	5,649	75,078	11,814	5,685	28,225	882	154,097
1998 Total	985	383	4,879	2,335	8,748	22,337	6,206	77,085	11,170	5,349	27,693	880	154,132
1999 Total	995	434	4,607	2,393	8,563	21,474	6,088	78,793	12,519	4,758	28,060	686	156,264
2000 Total	1,097	432	4,262	1,985	7,903	22,056	5,597	78,798	11,927	4,135	28,652	839	156,673
2001 January	88	61	361	110	629	1,895	654	6,767	678	234	2,433	85	13,128
February	86	39	311	104	548	1,590	486	6,019	633	235	2,071	54	11,421
March	83	38	321	102	553	1,734	489	6,590	724	338	2,172	66	12,454
April	65	32	331	115	550	1,572	416	6,099	655	283	2,204	83	11,674
May	73	33	334	127	575	1,477	424	6,317	734	293	2,080	55	11,751
June	84	33	344	129	598	1,644	377	6,405	682	291	2,134	54	11,949
July	101	36	455	134	732	1,818	419	7,030	781	242	2,304	60	13,048
August	115	39	525	129	814	1,949	419	7,191	791	316	2,410	62	13,566
September	84	31	388	128	636	1,625	386	6,782	720	243	2,171	68	12,412
October	72	36	384	126	622	1,640	417	6,845	693	206	2,415	73	12,721
November	68	29	327	118	548	1,576	381	6,670	653	198	2,223	82	12,230
December	77	32	354	141	611	1,614	425	7,042	710	265	2,272	73	12,822
Total	995	438	4,434	1,464	7,416	20,135	5,293	79,755	8,454	3,145	26,888	815	149,175
2002 January	R 85	R 35	R 355	R 111	R 597	R 1,752	R 390	R 7,231	R 721	R 296	R 2,448	R 103	R 13,173
February	R 70	R 36	R 291	R 92	R 500	R 1,548	R 327	R 6,484	R 653	R 279	R 2,190	R 92	R 11,850
March	R 84	R 32	R 338	R 110	R 573	R 1,677	R 359	R 7,001	R 743	R 276	R 2,184	R 103	R 12,654
April	66	R 27	R 328	R 117	R 546	R 1,741	R 343	R 6,118	R 759	R 317	R 2,535	R 92	R 12,176
May	69	R 27	R 314	R 145	566	R 1,691	R 333	R 6,761	R 781	R 287	R 2,459	R 86	R 12,592
June	R 83	R 30	R 378	R 141	R 642	R 1,848	R 338	R 6,567	R 868	R 255	R 2,646	R 87	R 12,829
July	R 101	R 38	R 448	R 145	R 743	R 2,092	R 371	R 7,079	R 873	R 273	R 2,638	R 103	R 13,820
August	R 102	R 37	R 490	R 157	R 797	R 1,891	R 350	R 7,051	R 915	R 277	R 2,589	R 102	R 13,438
September	R 88	R 34	R 392	R 153	R 676	R 1,782	R 339	R 6,388	R 872	R 247	R 2,505	R 89	R 12,628
October	R 78	R 31	R 344	R 138	R 600	R 1,827	R 395	R 5,925	R 737	R 343	R 2,607	R 75	R 12,363
November	R 78	R 38	R 294	R 142	R 554	R 1,804	R 432	R 6,131	R 730	R 447	R 2,405	R 89	R 12,361
December	R 88	R 65	R 339	R 120	R 622	R 1,872	R 426	R 6,277	R 840	R 529	R 2,439	R 83	R 12,697
Total	R 992	R 431	R 4,310	R 1,572	R 7,415	R 21,525	R 4,403	R 79,013	R 9,493	R 3,825	R 29,643	R 1,104	R 152,580
2003 January	90	98	376	132	703	2,017	587	7,250	797	413	2,155	75	13,591
February	86	77	293	121	584	1,710	462	6,220	633	362	1,980	69	11,685
March	85	42	356	168	662	1,804	476	6,460	802	524	2,396	88	13,001
April	81	23	341	171	632	1,696	381	5,698	610	414	2,288	77	11,593
May	66	23	415	168	694	1,663	406	5,472	652	539	2,187	85	11,425
June	83	32	466	165	752	1,686	436	6,150	769	499	2,253	81	12,225
July	100	39	396	164	713	1,890	434	6,468	805	498	2,289	82	12,825
August	103	44	427	161	745	1,892	407	6,748	729	497	2,173	97	12,963
September	R 87	R 27	R 284	R 152	R 554	R 1,602	R 343	R 5,465	R 736	R 428	R 1,992	R 101	R 11,001
October	F 63	F 19	F 313	F 140	F 539	F 1,707	F 356	F 6,020	F 709	F 362	F 2,273	F 87	F 12,205
10-Month Total ...	E 845	E 423	E 3,667	E 1,543	E 6,578	E 17,667	E 4,288	E 61,950	E 7,241	E 4,535	E 21,987	E 840	E 122,512
2002 10-Month Total ...	826	328	3,677	1,310	6,238	17,850	3,545	66,605	7,924	2,848	24,799	933	127,522
2001 10-Month Total ...	850	377	3,754	1,204	6,256	16,944	4,487	66,045	7,091	2,683	22,393	660	124,122

^a Commercial combined-heat-and-power (CHP) and commercial electricity-only plants. See note at end of section.

^b Industrial combined-heat-and-power (CHP) and industrial electricity-only plants. See note at end of section.

^c Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.

^d Distillate fuel oil, residual fuel oil, petroleum coke, jet fuel, kerosene, other petroleum, and waste oil.

^e Natural gas, including a small amount of supplemental gaseous fuels.

^f Municipal solid waste, landfill gas, sludge waste, tires, agricultural byproducts, and other biomass.

^g Includes a small amount of other gases, wood, and other, which are not separately displayed.

^h Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

ⁱ Conventional hydroelectric power.

^j Wood, black liquor, and other wood waste.

^k Includes batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, and miscellaneous technologies, which are not separately displayed.

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

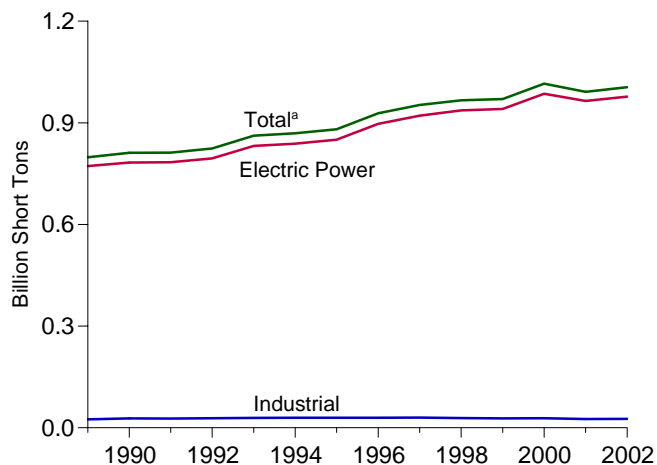
Notes: • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia.

Web Page: <http://www.eia.doe.gov/emeu/mer/elect.html>.

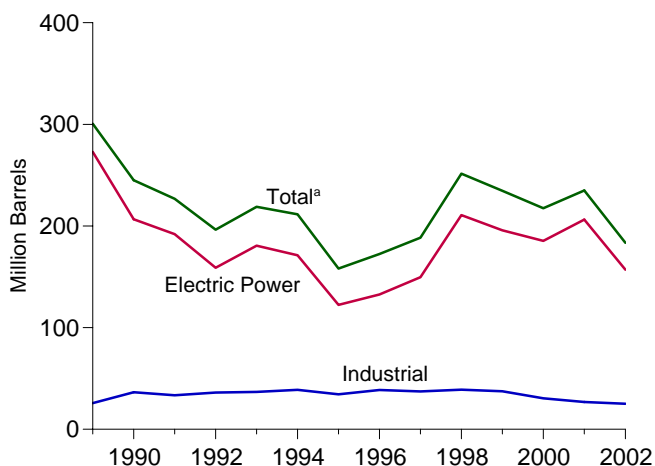
Sources: • 1989-1997: Energy Information Administration (EIA), Form EIA-867, "Annual Nonutility Power Producer Report." • 1998-2000: EIA, Form EIA-860B, "Annual Electric Generator Report-Nonutility." • 2001: EIA, Form EIA-860, "Annual Electric Generator Report" and Form EIA-906, "Power Plant Report." • 2002-September 2003: EIA, Form EIA-906, "Power Plant Report." • October 2003: EIA, Short-Term Integrated Forecasting System.

Figure 7.3a Consumption of Selected Combustible Fuels for Electricity Generation and Useful Thermal Output

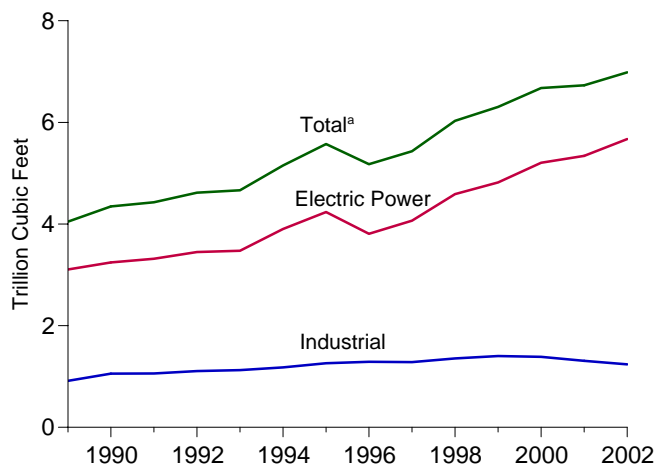
Coal by Sector, 1989-2002



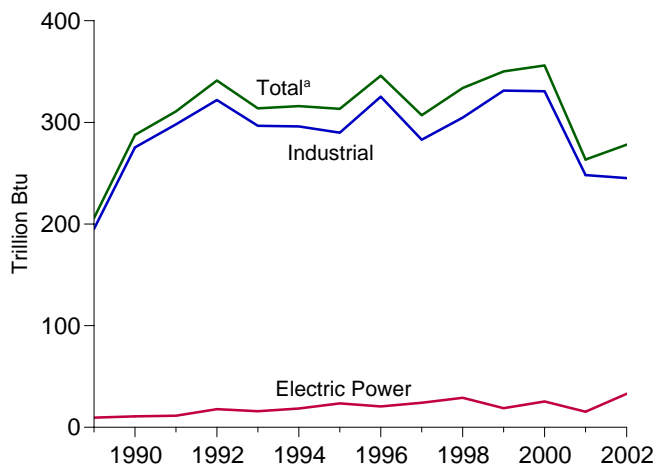
Petroleum by Sector, 1989-2002



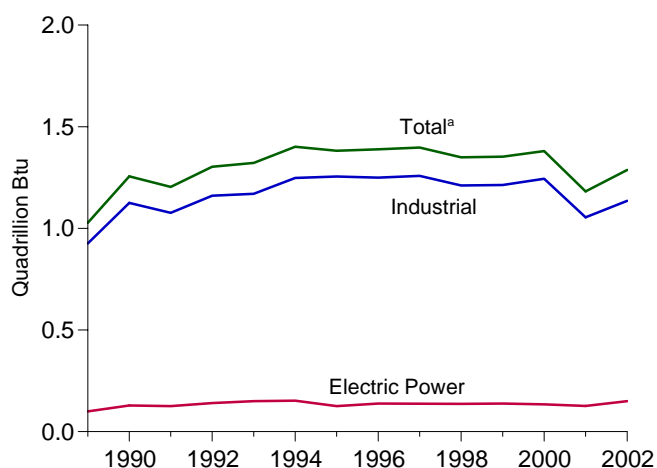
Natural Gas by Sector, 1989-2002



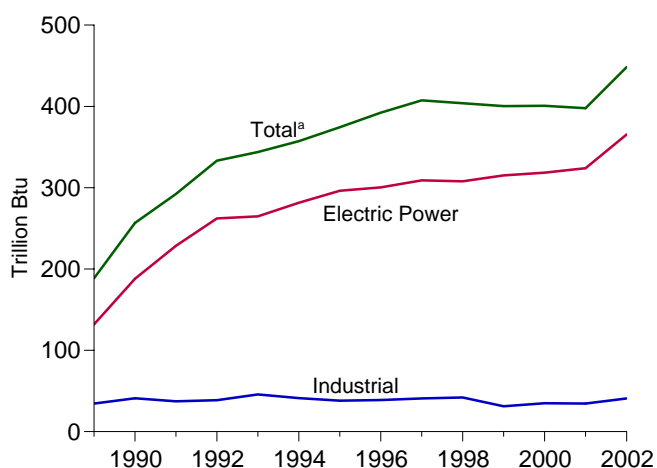
Other Gases^b by Sector, 1989-2002



Wood by Sector, 1989-2002



Waste by Sector, 1989-2002



^aIncludes commercial sector.

^bBlast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

Note: Because vertical scales differ, graphs should not be compared.
Web Page: <http://www.eia.doe.gov/emeu/mer/elect.html>
Sources: Tables 7.3a, 7.3b, and 7.3c.

Table 7.3a Consumption of Combustible Fuels for Electricity Generation and Useful Thermal Output: Total (All Sectors)

	Petroleum						Natural Gas ^f	Other Gases ^g	Wood ^h	Waste ⁱ	Other ^j
	Coal ^a	Distillate Fuel Oil ^b	Residual Fuel Oil ^c	Other Liquids ^d	Petroleum Coke ^e	Total ^e					
1989 Total	798,181	29,143	266,211	656	915	300,583	4,049	206	1,028	189	88
1990 Total	811,538	20,194	209,314	1,332	2,832	244,998	4,346	288	1,256	257	86
1991 Total	812,124	19,591	193,073	1,215	2,566	226,708	4,429	311	1,204	292	114
1992 Total	824,512	16,852	160,941	1,695	3,366	196,318	4,618	341	1,303	333	92
1993 Total	861,904	19,293	176,992	1,589	4,200	218,873	4,663	314	1,322	344	85
1994 Total	869,405	25,177	164,051	1,539	4,157	211,551	5,153	316	1,401	357	92
1995 Total	881,012	21,697	112,168	1,322	4,590	158,140	5,574	313	1,382	374	97
1996 Total	928,015	22,444	124,607	2,468	4,596	172,499	5,178	346	1,389	392	91
1997 Total	952,955	22,893	134,623	526	6,095	188,517	5,434	307	1,397	407	103
1998 Total	966,615	30,006	189,267	1,230	6,196	251,486	6,030	334	1,349	404	95
1999 Total	970,175	30,616	172,319	1,812	5,989	234,694	6,305	350	1,352	400	101
2000 Total	1,015,398	34,572	156,673	2,904	4,669	217,494	6,677	356	1,380	401	109
2001 January	90,951	8,634	23,486	230	393	34,316	458	21	106	34	8
February	77,545	3,112	14,659	144	357	19,701	417	21	93	29	7
March	80,268	3,439	16,644	157	354	22,010	477	23	98	33	8
April	72,530	2,941	16,015	103	297	20,545	491	20	96	33	7
May	78,810	2,521	15,051	90	346	19,389	543	22	91	33	7
June	84,486	2,135	17,885	92	359	21,905	604	22	96	34	7
July	93,653	2,063	15,922	103	425	20,214	756	25	99	35	8
August	95,669	2,931	20,845	116	414	25,964	814	24	103	35	9
September	81,256	1,477	10,425	95	386	13,929	629	22	96	32	8
October	77,816	1,617	8,846	89	408	12,593	587	21	104	33	8
November	75,568	1,318	8,492	89	343	11,613	465	21	98	33	9
December	83,082	1,538	8,867	110	449	12,759	489	22	100	35	9
Total	991,635	33,724	177,137	1,418	4,532	234,940	6,731	263	1,182	398	94
2002 January	R 84,830	R 2,073	R 8,147	R 295	R 570	R 13,365	R 501	R 23	R 109	R 37	R 7
February	R 74,236	R 1,343	R 6,768	R 185	R 566	R 11,125	R 449	R 20	R 94	R 33	R 8
March	R 78,096	R 2,078	R 10,451	R 267	R 603	R 15,812	R 520	R 22	R 99	R 37	R 8
April	R 73,775	R 1,904	R 9,743	R 259	R 575	R 14,779	R 508	R 21	R 100	R 35	R 7
May	R 78,744	R 2,261	R 9,748	R 297	R 634	R 15,475	523	R 22	R 108	R 37	R 6
June	R 85,778	R 1,853	R 9,761	R 216	R 693	R 15,296	R 660	R 24	R 101	R 38	R 6
July	R 95,331	R 2,849	R 12,533	R 309	R 654	R 18,963	R 852	R 25	R 116	R 40	9
August	R 94,033	R 2,637	R 12,336	R 283	R 709	R 18,798	R 833	R 24	R 103	R 40	7
September	R 86,410	R 1,862	R 10,086	R 211	R 651	R 15,414	R 676	R 25	R 113	R 37	9
October	R 83,060	R 2,172	R 10,271	R 261	R 572	R 15,563	R 546	R 23	R 120	R 37	R 9
November	R 81,654	R 1,689	R 8,045	R 285	R 533	R 12,686	R 454	R 24	R 108	R 37	R 8
December	R 89,198	R 2,028	R 10,747	R 388	R 594	R 16,132	R 464	R 25	R 114	R 39	R 7
Total	R 1,005,144	R 24,749	R 118,637	R 3,257	R 7,353	R 183,409	R 6,986	R 278	R 1,287	R 448	R 93
2003 January	93,739	5,235	15,522	398	527	23,791	480	21	97	32	4
February	81,134	4,228	13,434	542	438	20,395	427	19	92	30	4
March	81,148	3,704	13,768	400	395	19,845	457	23	110	36	5
April	74,192	1,783	11,277	353	538	16,103	425	20	103	35	5
May	78,760	3,192	9,724	465	516	15,963	472	18	99	36	5
June	84,916	3,410	13,330	537	624	20,396	510	22	105	36	4
July	95,854	2,531	15,918	623	710	22,623	715	23	110	39	4
August	97,190	2,265	16,990	494	684	23,171	766	22	106	38	4
September	R 85,811	R 1,333	R 11,095	R 454	R 658	R 16,173	R 522	R 19	R 99	R 34	R 4
October	F 80,104	F 1,460	F 8,587	F 125	F 501	F 12,677	F 526	F 21	F 101	F 35	F 9
10-Month Total ...	E 852,848	E 29,141	E 129,643	E 4,390	E 5,592	E 191,135	E 5,299	E 207	E 1,023	E 351	E 47
2002 10-Month Total ...	834,292	21,031	99,844	2,584	6,226	154,591	6,067	229	1,065	372	77
2001 10-Month Total ...	832,985	30,868	159,779	1,219	3,740	210,567	5,777	221	983	330	77

^a Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.

^b For 1989-2000, electric utility data are for light oil (fuel oil nos. 1 and 2, and small amounts of kerosene and jet fuel).

^c For 1989-2000, electric utility data are for heavy oil (fuel oil nos. 5 and 6, and small amounts of fuel oil no. 4).

^d Jet fuel, kerosene, other petroleum liquids, and waste oil.

^e Petroleum coke is converted from short tons to barrels by multiplying by 5.

^f Natural gas, including a small amount of supplemental gaseous fuels.

^g Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

^h Wood, black liquor, and other wood waste.

ⁱ Municipal solid waste, landfill gas, sludge waste, tires, agricultural byproducts, and other biomass.

^j Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, and miscellaneous technologies.

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

Notes: • Data are for fuels consumed to produce electricity and useful thermal output at electricity-only and combined-heat-and-power (CHP) plants. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: <http://www.eia.doe.gov/emeu/mer/elect.html>.

Sources: See sources for Tables 7.3b and 7.3c.

Table 7.3b Consumption of Combustible Fuels for Electricity Generation and Useful Thermal Output: Electric Power Sector

	Coal ^a	Petroleum					Natural Gas ^f	Other Gases ^g	Wood ^h	Waste ⁱ	Other ^j
		Distillate Fuel Oil ^b	Residual Fuel Oil ^c	Other Liquids ^d	Petroleum Coke ^e	Total ^e					
		Thousand Short Tons	Thousand Barrels			Thousand Short Tons					
1989 Total	772,190	26,156	244,179	10	517	272,931	3,105	9	100	132	3
1990 Total	782,567	16,567	184,915	26	1,008	206,550	3,245	11	129	188	(s)
1991 Total	783,874	14,359	172,625	59	974	191,911	3,316	11	126	229	4
1992 Total	795,094	12,623	138,726	128	1,494	158,948	3,448	18	140	262	5
1993 Total	831,645	14,849	152,481	239	2,611	180,625	3,473	16	150	265	5
1994 Total	838,354	20,612	138,222	771	2,315	171,178	3,903	19	152	282	3
1995 Total	850,230	18,553	90,023	499	2,674	122,447	4,237	24	125	296	2
1996 Total	896,921	18,780	99,951	653	2,642	132,593	3,807	20	138	300	2
1997 Total	921,364	18,989	113,669	152	3,372	149,668	4,065	24	137	309	1
1998 Total	936,619	23,300	166,528	431	4,102	210,769	4,588	29	137	308	2
1999 Total	940,922	24,058	152,493	544	3,735	195,769	4,820	19	138	315	1
2000 Total	985,821	30,016	138,513	454	3,275	185,358	5,206	25	134	318	1
2001 January	88,395	7,957	21,521	49	296	31,009	340	1	12	27	0
February	75,401	2,649	13,088	35	269	17,116	313	1	9	24	0
March	77,919	2,916	15,061	31	264	19,331	363	1	10	27	0
April	70,384	2,582	14,517	25	213	18,190	384	1	9	27	0
May	76,741	2,148	13,676	24	243	17,065	434	1	10	27	0
June	82,246	1,823	16,541	29	274	19,763	493	1	12	28	0
July	91,242	1,741	14,593	32	323	17,980	634	2	11	29	0
August	93,189	2,598	19,436	39	337	23,756	687	1	11	29	0
September	79,020	1,214	9,125	27	309	11,910	510	1	10	27	0
October	75,635	1,335	7,490	27	298	10,339	466	1	10	27	0
November	73,431	1,050	7,116	27	262	9,502	351	1	10	26	0
December	80,831	1,262	7,341	31	339	10,330	367	1	11	27	0
Total	964,433	29,274	159,504	377	3,427	206,291	5,342	15	126	324	0
2002 January	R 82,424	R 1,838	R 6,872	R 92	R 441	R 11,007	R 381	3	R 13	R 30	(s)
February	R 72,144	R 1,137	R 5,789	R 45	R 459	R 9,265	R 344	2	10	R 27	R 1
March	R 75,823	R 1,827	R 9,271	58	R 486	R 13,588	R 407	R 3	R 13	R 30	(s)
April	R 71,560	R 1,740	R 8,687	R 105	R 464	R 12,851	R 404	2	11	R 28	(s)
May	R 76,528	R 2,017	R 8,671	R 136	R 523	R 13,441	410	2	R 11	R 30	R 1
June	R 83,565	R 1,698	R 8,746	R 86	R 564	R 13,348	R 551	2	R 12	R 31	R 1
July	R 92,766	R 2,613	R 11,437	R 173	R 500	R 16,721	R 734	R 3	R 13	R 33	R 1
August	R 91,752	R 2,430	R 11,306	R 166	R 562	R 16,710	R 718	R 3	R 13	R 33	R 1
September	R 84,144	R 1,640	R 9,031	R 104	R 511	R 13,331	R 569	R 3	R 14	R 31	R 1
October	R 80,714	R 1,921	9,091	R 93	R 430	R 13,255	R 442	R 3	R 13	R 30	(s)
November	R 79,301	R 1,343	R 6,687	R 79	R 412	R 10,171	R 352	R 3	R 13	R 30	(s)
December	R 86,784	R 1,672	R 9,186	R 132	R 464	R 13,308	R 360	R 3	R 14	R 32	(s)
Total	R 977,507	R 21,876	R 104,773	R 1,267	R 5,816	R 156,996	R 5,672	R 33	R 150	R 365	R 7
2003 January	91,109	4,441	14,061	251	402	20,764	367	2	15	27	(s)
February	78,838	3,691	11,984	387	343	17,778	329	2	12	24	(s)
March	78,770	3,273	12,320	260	292	17,311	353	2	13	29	(s)
April	71,993	1,590	10,123	87	432	13,960	333	2	12	28	(s)
May	76,714	2,378	8,778	87	401	13,249	381	1	11	29	(s)
June	82,659	3,159	12,227	99	493	17,951	411	1	13	29	(s)
July	93,326	2,283	14,758	136	589	20,122	609	1	14	32	(s)
August	94,649	2,047	15,767	187	575	20,874	654	2	15	30	(s)
September	R 83,695	R 1,192	R 10,255	R 91	R 547	R 14,273	R 434	2	R 13	R 27	(s)
October	F 77,882	F 1,257	F 7,466	F 45	F 398	F 10,759	F 428	F 2	F 12	F 28	F 0
10-Month Total ...	E 829,633	E 25,312	E 117,739	E 1,630	E 4,472	E 167,042	E 4,299	E 16	E 129	E 282	E (s)
2002 10-Month Total ...	811,422	18,862	88,900	1,056	4,940	133,517	4,960	27	123	304	6
2001 10-Month Total ...	810,171	26,963	145,048	319	2,826	186,459	4,625	13	106	270	0

^a Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.

^b For 1989-2000, electric utility data are for light oil (fuel oil nos. 1 and 2, and small amounts of kerosene and jet fuel).

^c For 1989-2000, electric utility data are for heavy oil (fuel oil nos. 5 and 6, and small amounts of fuel oil no. 4).

^d Jet fuel, kerosene, other petroleum liquids, and waste oil.

^e Petroleum coke is converted from short tons to barrels by multiplying by 5.

^f Natural gas, including a small amount of supplemental gaseous fuels.

^g Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

^h Wood, black liquor, and other wood waste.

ⁱ Municipal solid waste, landfill gas, sludge waste, tires, agricultural byproducts, and other biomass.

^j Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, and miscellaneous technologies.

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

Notes: • Data are for fuels consumed to produce electricity and useful thermal output at electricity-only and combined-heat-and-power (CHP) plants. • The electric power sector comprises electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: <http://www.eia.doe.gov/emeu/mer/elect.html>.
Sources: • **1989-1997:** Energy Information Administration (EIA), Form EIA-759, "Monthly Power Plant Report" and Form EIA-867, "Annual Nonutility Power Producer Report." • **1998-2000:** EIA, Form EIA-759, "Monthly Power Plant Report" and Form EIA-860B, "Annual Electric Generator Report—Nonutility." • **2001:** EIA, Form EIA-860, "Annual Electric Generator Report" and Form EIA-906, "Power Plant Report." • **2002-September 2003:** EIA, Form EIA-906, "Power Plant Report." • **October 2003:** EIA, Short-Term Integrated Forecasting System.

Table 7.3c Consumption of Selected Combustible Fuels for Electricity Generation and Useful Thermal Output: Commercial and Industrial Sectors

	Commercial Sector ^a				Industrial Sector ^b						
	Coal ^c	Petroleum ^d	Natural Gas ^e	Waste ^f	Coal ^c	Petroleum ^d	Natural Gas ^e	Other Gases ^g	Wood ^h	Waste ^f	Other ⁱ
	Thousand Short Tons	Thousand Barrels	Billion Cubic Feet	Trillion Btu	Thousand Short Tons	Thousand Barrels	Billion Cubic Feet	Trillion Btu			
1989 Total	1,125	1,967	30	22	24,867	25,685	914	195	926	35	85
1990 Total	1,191	2,056	46	28	27,781	36,392	1,055	275	1,125	41	86
1991 Total	1,228	1,337	52	26	27,021	33,460	1,061	298	1,076	37	110
1992 Total	1,175	1,235	62	32	28,244	36,135	1,108	322	1,161	39	87
1993 Total	1,373	1,515	65	33	28,886	36,733	1,125	297	1,170	46	80
1994 Total	1,344	1,625	72	35	29,707	38,748	1,178	296	1,248	41	89
1995 Total	1,419	1,245	78	40	29,363	34,448	1,260	290	1,255	38	95
1996 Total	1,660	1,246	82	53	29,434	38,661	1,289	325	1,249	39	89
1997 Total	1,738	1,584	87	58	29,853	37,265	1,282	283	1,259	41	102
1998 Total	1,443	1,807	87	54	28,553	38,910	1,355	305	1,211	42	93
1999 Total	1,490	1,613	84	54	27,763	37,312	1,401	331	1,213	31	99
2000 Total	1,547	1,615	85	47	28,031	30,520	1,386	331	1,244	35	108
2001											
January	131	240	6	3	2,424	3,067	111	20	94	4	8
February	132	157	6	3	2,012	2,428	98	20	83	2	7
March	129	163	6	3	2,220	2,516	108	21	88	3	8
April	99	139	6	3	2,047	2,217	101	19	87	3	7
May	105	143	6	3	1,965	2,181	103	21	81	2	7
June	117	142	6	3	2,123	2,000	105	21	84	2	7
July	144	153	8	4	2,267	2,081	114	23	88	2	8
August	162	169	9	4	2,318	2,039	119	23	92	2	9
September	122	127	7	3	2,115	1,892	112	21	86	2	8
October	100	140	7	3	2,081	2,114	114	19	94	3	8
November	97	120	6	3	2,041	1,992	109	19	88	4	9
December	110	141	6	3	2,141	2,288	116	21	89	4	9
Total	1,448	1,832	79	39	25,755	26,817	1,310	248	1,054	35	94
2002											
January	R 127	R 99	6	R 3	R 2,278	R 2,259	R 114	R 20	97	4	R 7
February	R 102	R 92	5	3	R 1,990	R 1,768	R 100	R 18	R 84	3	7
March	R 124	R 88	R 6	R 3	R 2,150	R 2,136	R 107	R 20	R 86	4	R 7
April	R 100	R 84	6	R 3	R 2,115	R 1,844	R 97	R 19	R 89	3	7
May	R 105	R 81	R 5	4	R 2,110	R 1,953	107	R 20	R 96	3	R 6
June	R 112	87	R 6	4	R 2,101	R 1,861	R 102	R 22	R 89	3	R 5
July	R 126	R 115	R 7	4	R 2,439	R 2,127	R 111	R 22	R 103	3	R 8
August	R 127	R 114	R 8	4	R 2,153	R 1,974	R 108	R 21	R 90	3	6
September	R 116	R 90	R 7	4	R 2,150	R 1,993	R 101	R 22	R 99	3	9
October	R 114	R 89	6	4	R 2,231	R 2,219	R 97	R 20	R 107	R 3	R 9
November	R 116	R 130	5	4	R 2,237	R 2,385	R 97	21	R 95	4	R 8
December	R 134	R 181	6	R 3	R 2,279	R 2,643	R 98	R 22	R 100	4	R 7
Total	R 1,405	R 1,250	R 74	R 42	R 26,232	R 25,163	R 1,240	R 245	R 1,136	R 41	R 85
2003											
January	146	322	6	3	2,484	2,705	106	19	82	3	4
February	127	270	5	3	2,169	2,347	93	17	79	3	3
March	125	155	6	4	2,254	2,378	98	21	96	3	5
April	110	86	5	4	2,089	2,056	87	18	92	3	4
May	94	67	6	4	1,952	2,647	85	17	88	3	5
June	118	104	7	4	2,139	2,341	93	21	92	3	4
July	137	144	7	4	2,391	2,356	99	21	96	3	4
August	144	155	8	4	2,397	2,142	104	21	91	3	4
September	R 121	R 80	R 5	R 4	R 1,995	R 1,820	R 83	R 17	R 87	R 4	R 4
October	F 92	F 66	F 5	F 4	F 2,131	F 1,851	F 93	F 19	F 90	F 3	F 9
10-Month Total ...	E 1,215	E 1,449	E 60	E 39	E 22,000	E 22,645	E 940	E 191	E 894	E 30	E 46
2002 10-Month Total ...	1,155	940	63	35	21,716	20,134	1,045	202	941	32	70
2001 10-Month Total ...	1,241	1,571	67	33	21,573	22,537	1,085	208	877	26	77

^a Commercial combined-heat-and-power (CHP) and commercial electricity-only plants. See note at end of section.

^b Industrial combined-heat-and-power (CHP) and industrial electricity-only plants. See note at end of section.

^c Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.

^d Distillate fuel oil, residual fuel oil, petroleum coke, jet fuel, kerosene, other petroleum, and waste oil.

^e Natural gas, including a small amount of supplemental gaseous fuels.

^f Municipal solid waste, landfill gas, sludge waste, tires, agricultural byproducts, and other biomass.

^g Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

^h Wood, black liquor, and other wood waste.

ⁱ Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, and miscellaneous technologies.

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

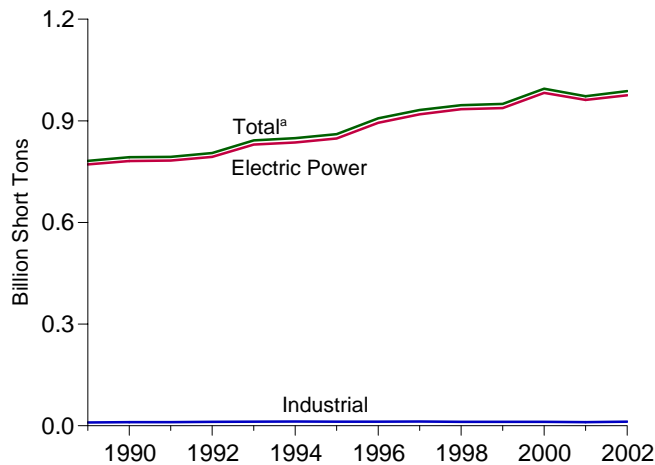
Notes: • Data are for fuels consumed to produce electricity and useful thermal output at electricity-only and combined-heat-and-power (CHP) plants. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: <http://www.eia.doe.gov/emeu/mer/elect.html>.

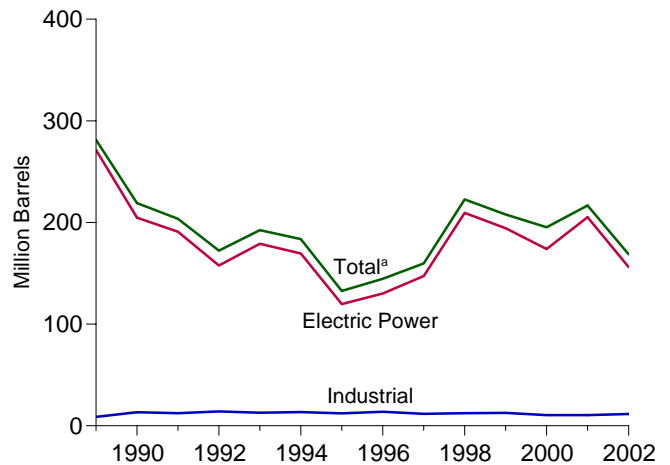
Sources: • **1989-1997:** Energy Information Administration (EIA), Form EIA-867, "Annual Nonutility Power Producer Report." • **1998-2000:** EIA, Form EIA-860B, "Annual Electric Generator Report—Nonutility." • **2001:** EIA, Form EIA-860, "Annual Electric Generator Report" and Form EIA-906, "Power Plant Report." • **2002-September 2003:** EIA, Form EIA-906, "Power Plant Report." • **October 2003:** EIA, Short-Term Integrated Forecasting System.

Figure 7.3b Consumption of Selected Combustible Fuels for Electricity Generation

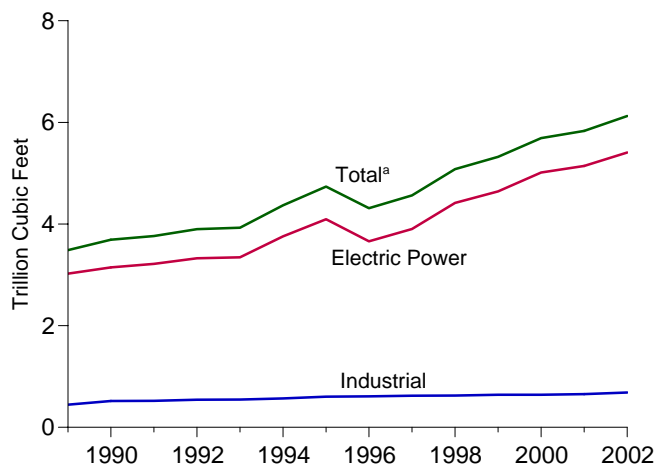
Coal by Sector, 1989-2002



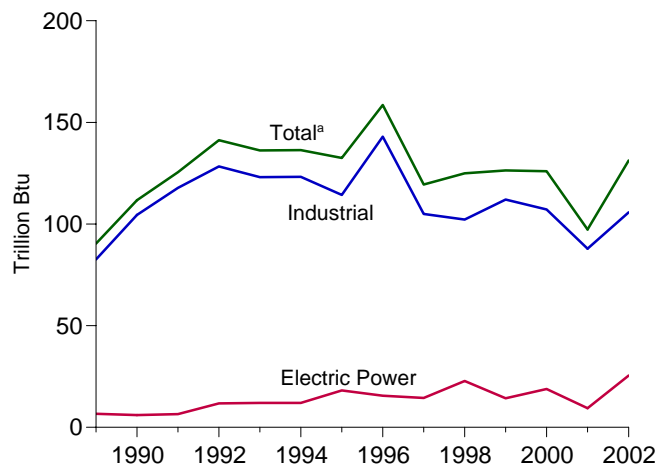
Petroleum by Sector, 1989-2002



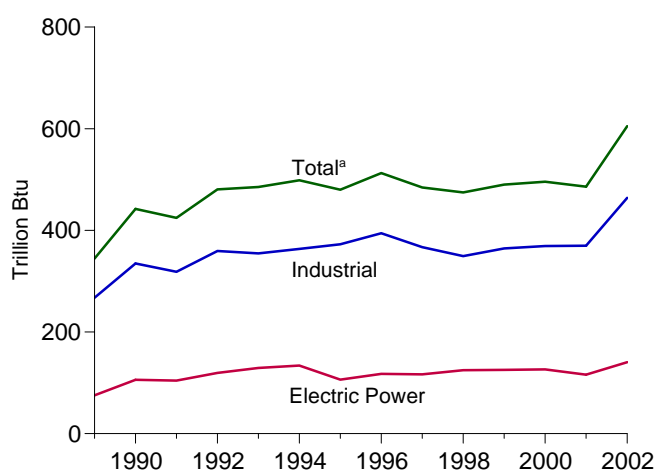
Natural Gas by Sector, 1989-2002



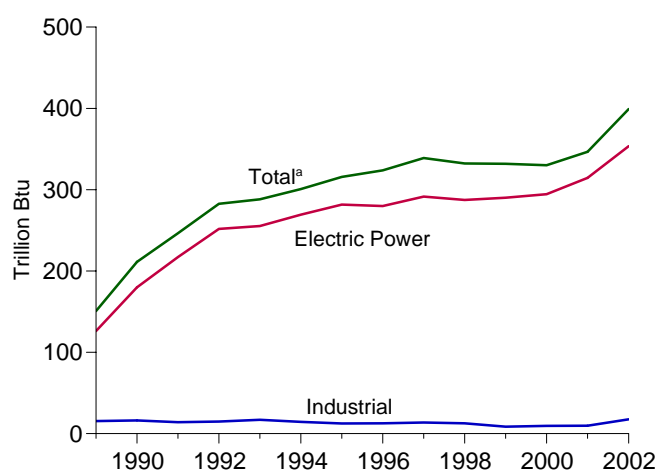
Other Gases^b by Sector, 1989-2002



Wood by Sector, 1989-2002



Waste by Sector, 1989-2002



^aIncludes commercial sector.

^bBlast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

Note: Because vertical scales differ, graphs should not be compared.
 Web Page: <http://www.eia.doe.gov/emeu/mer/elect.html>
 Sources: Tables 7.3d, 7.3e, and 7.3f.

Table 7.3d Consumption of Combustible Fuels for Electricity Generation: Total (All Sectors)

	Coal ^a Thousand Short Tons	Petroleum					Natural Gas ^f Billion Cubic Feet	Other Gases ^g	Wood ^h	Waste ⁱ	Other ^j
		Distillate Fuel Oil ^b	Residual Fuel Oil ^c	Other Liquids ^d	Petroleum Coke ^e	Total ^e					
		Thousand Barrels									
1973 Total	389,212	47,058	513,190	NA	507	562,781	3,660	NA	1	2	NA
1974 Total	391,811	53,128	483,146	NA	625	539,399	3,443	NA	1	2	NA
1975 Total	405,962	38,907	467,221	NA	70	506,479	3,158	NA	(s)	2	NA
1976 Total	448,371	41,843	514,077	NA	68	556,261	3,081	NA	1	2	NA
1977 Total	477,126	48,837	574,869	NA	98	624,193	3,191	NA	3	2	NA
1978 Total	481,235	47,520	588,319	NA	398	637,830	3,188	NA	2	1	NA
1979 Total	527,051	30,691	492,606	NA	268	524,636	3,491	NA	3	2	NA
1980 Total	569,274	29,051	391,163	NA	179	421,110	3,682	NA	3	2	NA
1981 Total	596,797	21,313	329,798	NA	139	351,806	3,640	NA	3	1	NA
1982 Total	593,666	15,337	234,434	NA	149	250,517	3,226	NA	2	1	NA
1983 Total	625,211	16,512	228,984	NA	261	246,804	2,911	NA	2	2	NA
1984 Total	664,399	15,190	189,289	NA	252	205,736	3,111	NA	5	4	NA
1985 Total	693,841	14,635	158,779	NA	231	174,571	3,044	NA	8	7	NA
1986 Total	685,056	14,326	161,156	NA	313	232,046	2,602	NA	5	7	NA
1987 Total	717,894	15,367	184,011	NA	348	201,116	2,844	NA	8	7	NA
1988 Total	758,372	18,769	229,327	NA	409	250,141	2,636	NA	10	8	NA
1989 Total ^k	781,672	27,733	249,820	303	667	281,192	3,485	90	345	151	39
1990 Total	792,457	18,143	190,849	437	1,914	218,997	3,692	112	442	211	36
1991 Total	793,666	16,564	177,780	380	1,789	203,669	3,765	125	425	247	59
1992 Total	805,140	14,493	144,467	759	2,504	172,241	3,900	141	481	283	40
1993 Total	842,153	16,845	159,059	715	3,169	192,462	3,929	136	485	288	34
1994 Total	848,796	22,365	145,225	929	3,020	183,618	4,367	136	498	301	40
1995 Total	860,594	19,615	95,507	680	3,355	132,578	4,738	133	480	316	42
1996 Total	907,209	20,252	106,055	1,712	3,322	144,626	4,312	159	513	324	37
1997 Total	931,949	20,309	118,741	237	4,086	159,715	4,565	119	484	339	36
1998 Total	946,295	25,062	172,728	549	4,860	222,640	5,081	125	475	332	36
1999 Total	949,802	25,951	158,187	974	4,552	207,871	5,322	126	490	332	41
2000 Total	994,933	31,675	143,381	1,450	3,744	195,228	5,691	126	496	330	46
2001 January	89,136	8,185	22,181	132	333	32,164	380	8	42	29	3
February	76,002	2,835	13,589	86	302	18,020	348	7	37	26	3
March	78,613	3,141	15,552	87	295	20,256	402	8	39	29	3
April	71,022	2,738	15,006	62	247	19,039	422	8	38	29	3
May	77,344	2,317	14,109	55	290	17,931	474	9	39	29	3
June	82,959	1,963	16,985	57	310	20,555	532	8	42	30	3
July	92,001	1,885	15,029	65	370	18,829	678	9	41	31	3
August	93,954	2,750	19,888	75	364	24,532	733	9	43	30	4
September	79,751	1,330	9,571	60	340	12,659	553	8	43	29	4
October	76,327	1,460	7,955	55	344	11,191	509	8	43	29	4
November	74,073	1,161	7,591	56	293	10,271	390	7	39	28	4
December	81,509	1,384	7,857	67	383	11,224	410	8	40	29	4
Total	972,691	31,150	165,312	855	3,871	216,672	5,832	97	486	347	41
2002 January	R 83,186	R 1,963	R 7,271	R 148	R 524	R 12,003	R 424	R 11	R 51	R 32	4
February	R 72,845	R 1,239	R 6,108	R 88	R 527	R 10,069	R 381	R 9	R 46	R 29	4
March	R 76,541	R 1,943	R 9,696	R 112	R 569	R 14,594	R 448	R 10	R 48	R 32	4
April	R 72,379	R 1,819	R 9,044	R 143	R 530	R 13,657	R 439	R 10	R 50	R 31	R 3
May	R 77,322	R 2,130	R 9,003	R 175	R 590	R 14,258	R 453	R 10	R 47	R 33	R 3
June	R 84,412	R 1,788	R 9,076	R 119	R 645	R 14,209	R 589	R 12	R 50	R 34	R 3
July	R 93,763	R 2,730	R 11,793	R 208	R 600	R 17,730	R 777	R 13	R 53	R 37	5
August	R 92,604	R 2,549	R 11,635	R 202	R 660	R 17,688	R 759	R 12	R 52	R 37	R 4
September	R 84,932	R 1,759	R 9,359	R 135	R 616	R 14,333	R 605	R 11	R 52	R 34	5
October	R 81,613	R 2,049	R 9,453	R 183	R 529	R 14,333	R 475	R 11	R 54	R 33	R 5
November	R 80,234	R 1,492	R 7,123	R 177	R 498	R 11,282	R 385	R 12	R 50	R 33	R 4
December	R 87,752	R 1,825	R 9,674	R 204	R 548	R 14,442	R 390	R 11	R 50	R 34	R 3
Total	R 987,583	R 23,286	R 109,235	R 1,894	R 6,836	R 168,597	R 6,126	R 131	R 605	R 399	R 49
2003 January	92,030	4,816	14,529	298	460	21,941	408	10	50	29	2
February	79,659	3,956	12,367	415	388	18,679	365	8	44	26	2
March	79,600	3,427	12,768	320	338	18,203	391	9	49	32	3
April	72,784	1,670	10,478	196	478	14,732	365	8	46	31	2
May	77,505	2,682	9,095	257	453	14,299	417	8	42	32	3
June	83,468	3,270	12,594	297	560	18,960	452	10	46	32	2
July	94,233	2,425	15,076	353	649	21,097	646	9	47	35	2
August	95,573	2,166	16,077	345	611	21,642	697	10	47	34	2
September	R 84,466	R 1,267	R 10,470	R 273	R 598	R 15,001	R 468	R 8	R 43	R 30	R 2
October	F 78,671	F 1,347	F 7,809	F 79	F 444	F 11,455	F 462	F 9	F 45	F 30	F 5
10-Month Total	E 837,990	E 27,027	E 121,263	E 2,832	E 4,977	E 176,009	E 4,670	E 90	E 459	E 310	E 24
2002 10-Month Total	819,598	19,969	92,438	1,513	5,791	142,873	5,350	108	505	332	41
2001 10-Month Total	817,109	28,604	149,863	732	3,196	195,178	5,032	82	406	289	34

^a Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.
^b For 1973-1979, gas turbine and internal combustion plant use of petroleum. For 1980-2000, electric utility data are for light oil (fuel oil nos. 1 and 2, and small amounts of kerosene and jet fuel.)
^c For 1973-1979, steam plant use of petroleum. For 1980-2000, electric utility data are for heavy oil (fuel oil nos. 5 and 6, and small amounts of fuel oil no. 4.)
^d Jet fuel, kerosene, other petroleum liquids, and waste oil.
^e Petroleum coke is converted from short tons to barrels by multiplying by 5.
^f Natural gas, including a small amount of supplemental gaseous fuels.
^g Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.
^h Wood, black liquor, and other wood waste.
ⁱ Municipal solid waste, landfill gas, sludge waste, tires, agricultural byproducts, and other biomass.

^j Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, and miscellaneous technologies.
^k Through 1988, data are for consumption at electric utilities only. Beginning in 1989, data also include consumption at independent power producers, commercial plants, and industrial plants.
 R=Revised. E=Estimate. NA=Not available. (s)=Less than 0.5 trillion Btu. F=Forecast.
 Notes: • Data are for fuels consumed to produce electricity; they exclude fuels consumed to produce useful thermal output. Consumption for electricity generation at combined-heat-and-power (CHP) plants is estimated. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.
 Web Page: <http://www.eia.doe.gov/emeu/mer/elect.html>
 Sources: See sources for Tables 7.3e and 7.3f.

**Table 7.3e Consumption of Combustible Fuels for Electricity Generation:
Electric Power Sector**

	Coal ^a	Petroleum					Natural Gas ^f	Other Gases ^g	Wood ^h	Waste ⁱ	Other ^j
		Distillate Fuel Oil ^b	Residual Fuel Oil ^c	Other Liquids ^d	Petroleum Coke ^e	Total ^e					
		Thousand Short Tons	Thousand Barrels			Thousand Short Tons					
1973 Total	389,212	47,058	513,190	NA	507	562,781	3,660	NA	1	2	NA
1974 Total	391,811	53,128	483,146	NA	625	539,399	3,443	NA	1	2	NA
1975 Total	405,962	38,907	467,221	NA	70	506,479	3,158	NA	(s)	2	NA
1976 Total	448,371	41,843	514,077	NA	68	556,261	3,081	NA	1	2	NA
1977 Total	477,126	48,837	574,869	NA	98	624,193	3,191	NA	3	2	NA
1978 Total	481,235	47,520	588,319	NA	398	637,830	3,188	NA	2	1	NA
1979 Total	527,051	30,691	492,606	NA	268	524,636	3,491	NA	3	2	NA
1980 Total	569,274	29,051	391,163	NA	179	421,110	3,682	NA	3	2	NA
1981 Total	596,797	21,313	329,798	NA	139	351,806	3,640	NA	3	1	NA
1982 Total	593,666	15,337	234,434	NA	149	250,517	3,226	NA	2	1	NA
1983 Total	625,211	16,512	228,984	NA	261	246,804	2,911	NA	2	2	NA
1984 Total	664,399	15,190	189,289	NA	252	205,736	3,111	NA	5	4	NA
1985 Total	693,841	14,635	158,779	NA	231	174,571	3,044	NA	8	7	NA
1986 Total	685,056	14,326	216,156	NA	313	232,046	2,602	NA	5	7	NA
1987 Total	717,894	15,367	184,011	NA	348	201,116	2,844	NA	8	7	NA
1988 Total	758,372	18,769	229,327	NA	409	250,141	2,636	NA	10	8	NA
1989 Total ^k	771,551	26,036	242,708	9	517	271,340	3,024	7	75	126	2
1990 Total	781,301	16,394	183,285	25	1,008	204,745	3,147	6	106	180	(s)
1991 Total	782,653	14,255	171,629	58	974	190,810	3,216	6	104	217	4
1992 Total	793,390	12,469	137,681	118	1,490	157,719	3,325	12	120	252	3
1993 Total	829,851	14,559	151,407	213	2,571	179,034	3,344	12	129	255	3
1994 Total	836,113	20,241	137,198	667	2,256	169,387	3,758	12	134	269	2
1995 Total	847,854	18,066	88,895	441	2,452	119,663	4,094	18	106	282	2
1996 Total	894,400	18,472	98,795	567	2,467	130,168	3,660	16	117	280	2
1997 Total	919,009	18,646	112,423	130	3,201	147,202	3,903	14	117	292	1
1998 Total	934,126	23,166	165,875	411	3,999	209,447	4,416	23	125	287	2
1999 Total	937,888	23,875	151,921	514	3,607	194,345	4,644	14	125	290	1
2000 Total	982,713	29,722	138,047	403	3,155	173,832	5,014	19	126	294	1
2001 January	88,115	7,825	21,466	47	283	30,755	324	1	10	26	0
February	75,146	2,614	13,041	34	259	16,983	297	1	8	23	0
March	77,661	2,912	15,019	31	253	19,230	347	1	9	26	0
April	70,149	2,580	14,463	25	201	18,074	370	1	8	26	0
May	76,518	2,144	13,638	24	235	16,983	419	1	9	26	0
June	82,009	1,821	16,513	29	267	19,698	477	(s)	11	27	0
July	90,994	1,738	14,574	32	316	17,923	618	1	11	28	0
August	92,943	2,593	19,416	39	323	23,661	669	1	10	28	0
September	78,793	1,204	9,111	27	300	11,841	493	1	10	26	0
October	75,409	1,327	7,477	27	289	10,273	449	1	10	26	0
November	73,198	1,041	7,106	27	252	9,433	333	1	9	25	0
December	80,589	1,257	7,326	31	330	10,265	349	1	10	27	0
Total	961,523	29,056	159,150	374	3,308	205,119	5,142	9	116	314	0
2002 January	R 82,197	R 1,832	R 6,853	R 89	R 431	R 10,928	R 360	R 3	12	R 29	(s)
February	R 71,972	R 1,134	R 5,772	R 43	R 450	R 9,198	R 324	R 2	9	R 26	R 1
March	R 75,613	R 1,823	R 9,258	57	R 476	R 13,515	R 385	R 2	R 12	R 29	(s)
April	R 71,377	R 1,738	R 8,680	R 103	R 456	R 12,800	R 384	1	R 11	R 28	(s)
May	R 76,367	R 2,012	R 8,658	R 135	R 514	R 13,373	R 390	R 2	R 10	R 29	R 1
June	R 83,393	R 1,696	R 8,729	R 85	R 552	R 13,268	R 529	R 2	11	R 30	R 1
July	R 92,575	R 2,611	R 11,419	R 170	R 487	R 16,637	R 710	R 2	12	R 32	R 1
August	R 91,543	R 2,428	R 11,289	R 163	R 553	R 16,646	R 693	R 3	R 13	R 32	R 1
September	R 83,958	R 1,638	R 9,016	R 101	R 507	R 13,292	R 546	R 2	R 13	R 30	R 1
October	R 80,533	R 1,918	R 9,070	R 91	R 423	R 13,194	R 421	R 2	R 12	R 29	(s)
November	R 79,132	R 1,338	R 6,668	R 77	R 405	R 10,105	R 330	R 3	R 12	R 29	(s)
December	R 86,591	R 1,642	R 9,164	R 128	R 453	R 13,199	R 336	R 2	R 13	R 31	(s)
Total	R 975,251	R 21,810	R 104,577	R 1,243	R 5,705	R 156,154	R 5,408	R 25	R 141	R 353	R 7
2003 January	90,900	4,349	13,974	237	392	20,522	343	1	14	26	(s)
February	78,666	3,641	11,906	364	336	17,589	308	1	11	23	(s)
March	78,581	3,235	12,281	257	280	17,175	332	1	13	28	(s)
April	71,814	1,586	10,084	86	419	13,850	312	1	11	27	(s)
May	76,535	2,376	8,754	86	392	13,178	365	1	10	28	(s)
June	82,496	3,153	12,207	98	485	17,883	394	1	12	28	(s)
July	93,165	2,280	14,690	136	582	20,015	588	1	14	31	(s)
August	94,486	2,044	15,696	186	553	20,690	634	1	14	30	(s)
September	R 83,551	R 1,190	R 10,187	R 91	R 539	R 14,164	R 416	1	12	R 26	(s)
October	F 77,706	F 1,246	F 7,429	F 43	F 388	F 10,659	F 407	F 1	F 11	F 27	F 0
10-Month Total	E 827,902	E 25,100	E 117,208	E 1,584	E 4,367	E 165,725	E 4,100	E 10	E 122	E 274	E (s)
2002 10-Month Total	809,527	18,830	88,745	1,038	4,847	132,850	4,742	20	115	294	6
2001 10-Month Total	807,736	26,758	144,718	316	2,726	185,421	4,461	8	97	263	0

^a Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.
^b For 1973-1979, gas turbine and internal combustion plant use of petroleum. For 1980-2000, electric utility data are for light oil (fuel oil nos. 1 and 2, and small amounts of kerosene and jet fuel.)
^c For 1973-1979, steam plant use of petroleum. For 1980-2000, electric utility data are for heavy oil (fuel oil nos. 5 and 6, and small amounts of fuel oil no. 4.)
^d Jet fuel, kerosene, other petroleum liquids, and waste oil.
^e Petroleum coke is converted from short tons to barrels by multiplying by 5.
^f Natural gas, including a small amount of supplemental gaseous fuels.
^g Blast furnace gas, propane gas, and other manufactured and waste gases derived from

fossil fuels.
^h Wood, black liquor, and other wood waste.
ⁱ Municipal solid waste, landfill gas, sludge waste, tires, agricultural byproducts, and other biomass.
^j Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, and miscellaneous technologies.
^k Through 1988, data are for consumption at electric utilities only. Beginning in 1989, data also include consumption at independent power producers.
R=Revised, E=Estimate, NA=Not available, (s)=Less than 0.5 trillion Btu, F=Forecast.
Notes, Web Page, and Sources: See end of section.

Table 7.3f Estimated Consumption of Selected Combustible Fuels for Electricity Generation: Commercial and Industrial Sectors

	Commercial Sector ^a				Industrial Sector ^b						
	Coal ^c	Petroleum ^d	Natural Gas ^e	Waste ^f	Coal ^c	Petroleum ^d	Natural Gas ^e	Other Gases ^g	Wood ^h	Waste ^f	Other ⁱ
	Thousand Short Tons	Thousand Barrels	Billion Cubic Feet	Trillion Btu	Thousand Short Tons	Thousand Barrels	Billion Cubic Feet	Trillion Btu			
1989 Total	414	1,165	18	9	9,707	8,688	444	83	267	15	37
1990 Total	417	953	28	15	10,740	13,299	517	104	335	16	36
1991 Total	403	576	27	15	10,610	12,283	522	118	318	14	55
1992 Total	371	429	33	16	11,379	14,093	542	128	359	15	37
1993 Total	404	672	37	16	11,898	12,755	547	123	355	17	31
1994 Total	404	694	41	17	12,279	13,537	568	123	364	14	38
1995 Total	569	649	43	21	12,171	12,265	601	114	373	13	40
1996 Total	656	645	42	31	12,153	13,813	610	143	394	13	35
1997 Total	630	790	39	34	12,311	11,723	623	105	367	14	36
1998 Total	440	802	41	32	11,728	12,392	625	102	349	13	35
1999 Total	481	931	39	33	11,432	12,595	639	112	364	8	39
2000 Total	514	823	37	26	11,706	10,459	640	107	369	10	45
2001											
January	41	144	3	2	980	1,265	54	7	32	1	3
February	46	88	2	2	809	949	49	7	28	1	3
March	46	89	3	2	906	937	53	7	30	1	3
April	35	74	3	2	837	892	50	7	30	1	3
May	40	77	3	2	786	871	53	8	29	1	3
June	44	75	3	2	907	782	53	7	31	1	3
July	56	80	4	2	951	826	57	8	31	1	3
August	65	91	4	2	947	781	60	8	32	1	4
September	49	72	3	2	909	746	57	7	33	1	4
October	36	84	3	2	882	834	57	7	33	1	4
November	35	68	3	2	840	770	54	7	30	1	4
December	38	82	3	2	883	876	59	7	30	1	4
Total	532	1,023	36	22	10,636	10,530	654	88	370	10	41
2002											
January	R 46	R 67	R 3	R 2	R 943	R 1,008	R 61	R 8	R 39	R 1	R 3
February	R 30	R 64	R 2	R 2	R 843	R 808	R 55	R 8	R 36	R 1	R 3
March	R 42	R 56	R 3	R 2	R 887	R 1,022	R 60	R 8	R 36	R 1	R 4
April	R 36	R 49	R 3	R 2	R 966	R 807	R 53	R 8	R 39	R 2	R 3
May	R 36	R 51	R 2	R 3	R 919	R 835	R 61	R 8	R 37	R 1	R 2
June	R 39	R 56	R 3	R 3	R 980	R 885	R 57	R 10	R 39	R 2	R 2
July	R 41	R 71	R 3	R 3	R 1,147	R 1,022	R 63	R 10	R 41	R 2	R 4
August	R 46	R 73	R 4	R 3	R 1,015	R 969	R 62	R 10	R 40	R 2	R 3
September	R 44	R 62	R 3	R 3	R 930	R 979	R 56	R 9	R 39	R 1	R 5
October	R 39	R 59	R 3	R 3	R 1,041	R 1,080	R 52	R 9	R 42	R 1	R 5
November	R 37	R 92	R 2	R 3	R 1,064	R 1,084	R 53	R 9	R 38	R 1	R 4
December	R 41	R 135	R 2	R 2	R 1,120	R 1,108	R 52	R 9	R 37	R 1	R 3
Total	R 477	R 834	R 33	R 28	R 11,855	R 11,608	R 685	R 106	R 464	R 18	R 41
2003											
January	48	228	3	2	1,082	1,192	62	9	36	1	2
February	41	186	2	2	952	904	54	7	33	1	2
March	40	90	3	3	978	938	56	8	37	1	3
April	36	53	3	3	934	829	50	7	35	1	2
May	33	46	3	3	937	1,075	49	8	32	1	3
June	43	71	4	3	929	1,006	54	10	34	1	2
July	50	100	3	3	1,018	983	55	8	34	1	2
August	51	100	4	3	1,036	852	59	8	33	1	2
September	R 44	R 56	R 2	R 2	R 871	R 781	R 49	R 7	R 31	R 1	R 2
October	F 31	F 44	F 3	F 2	F 934	F 753	F 52	F 8	F 34	F 1	F 5
10-Month Total ...	E 417	E 973	E 30	E 26	E 9,672	E 9,311	E 540	E 80	E 338	E 10	E 23
2002 10-Month Total ...	399	607	28	23	9,671	9,416	580	88	389	15	34
2001 10-Month Total ...	459	873	31	19	8,914	8,884	541	74	310	8	34

^a Commercial combined-heat-and-power (CHP) and commercial electricity-only plants. See note at end of section.

^b Industrial combined-heat-and-power (CHP) and industrial electricity-only plants. See note at end of section.

^c Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and synthetic coal.

^d Distillate fuel oil, residual fuel oil, petroleum coke, jet fuel, kerosene, other petroleum, and waste oil.

^e Natural gas, including a small amount of supplemental gaseous fuels.

^f Municipal solid waste, landfill gas, sludge waste, tires, agricultural byproducts, and other biomass.

^g Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.

^h Wood, black liquor, and other wood waste.

ⁱ Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, and miscellaneous technologies.

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

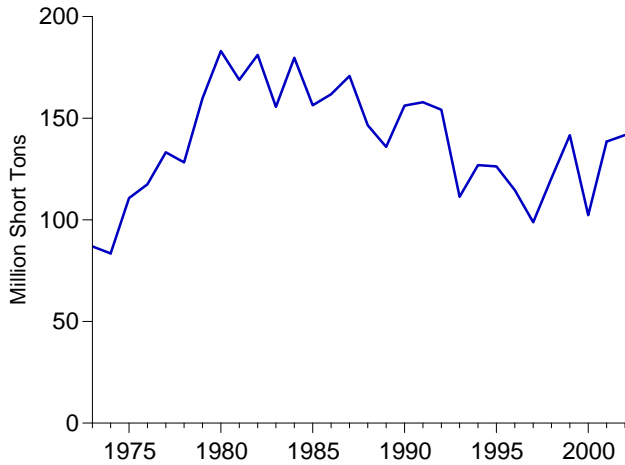
Notes: • Estimates are for fuels consumed to produce electricity; they exclude fuels consumed to produce useful thermal output. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: <http://www.eia.doe.gov/emeu/mer/elect.html>.

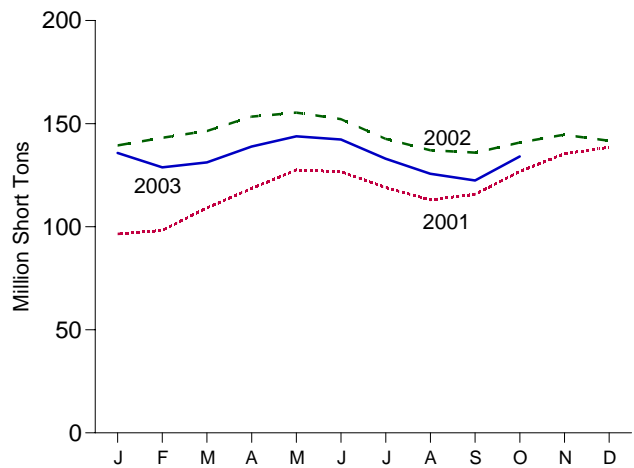
Sources: • **1989-1997:** Energy Information Administration (EIA), Form EIA-867, "Annual Nonutility Power Producer Report." • **1998-2000:** EIA, Form EIA-860B, "Annual Electric Generator Report—Nonutility." • **2001:** EIA, Form EIA-860, "Annual Electric Generator Report" and Form EIA-906, "Power Plant Report." • **2002-September 2003:** EIA, Form EIA-906, "Power Plant Report." • **October 2003:** EIA, Short-Term Integrated Forecasting System.

Figure 7.4 Stocks of Coal and Petroleum: Electric Power Sector

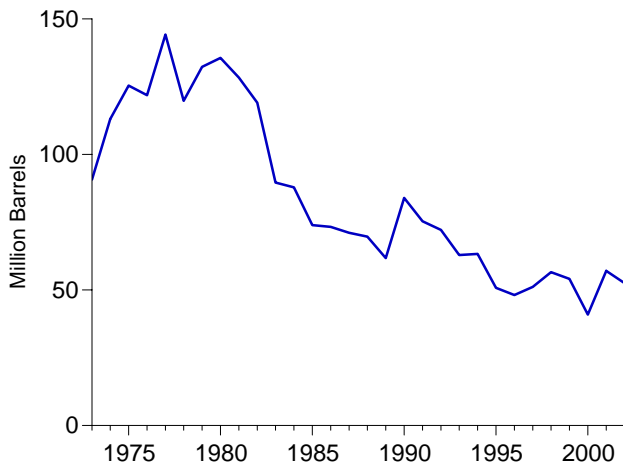
Coal, 1973-2002



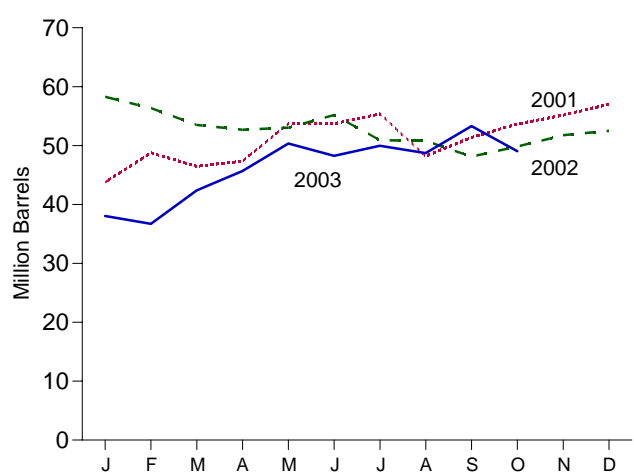
Coal, Monthly



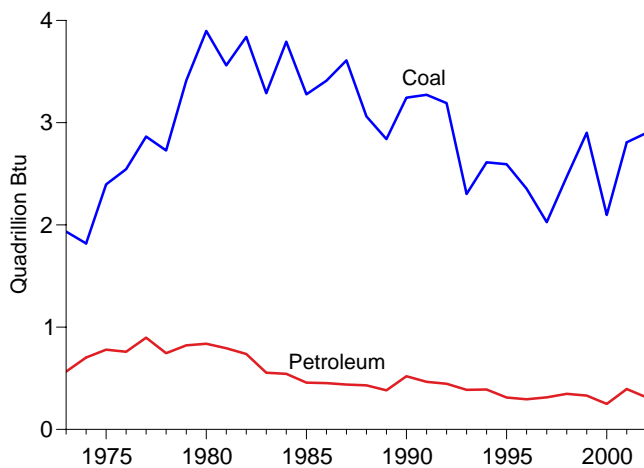
Total Petroleum, 1973-2002



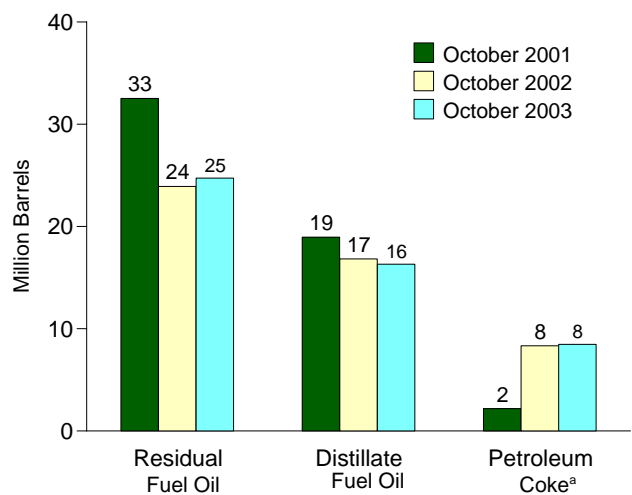
Total Petroleum, Monthly



Coal and Petroleum Stocks, 1973-2002



Petroleum by Type, End of Month



^aConverted from short tons to barrels by multiplying by 5.
Note: Because vertical scales differ, graphs should not be compared.

Web Page: <http://www.eia.doe.gov/emeu/mer/elect.html>.
Source: Tables 7.4, A1, and A5.

Table 7.4 Stocks of Coal and Petroleum: Electric Power Sector

	Coal ^a	Petroleum			
		Distillate Fuel Oil ^b	Residual Fuel Oil ^c	Petroleum Coke ^d	Total ^{d,e}
1973 Total	86,967	10,095	79,121	312	90,776
1974 Total	83,509	15,199	97,718	35	113,091
1975 Total	110,724	16,432	108,825	31	125,413
1976 Total	117,436	14,703	106,993	32	121,857
1977 Total	133,219	19,281	124,750	44	144,252
1978 Total	128,225	16,386	102,402	198	119,778
1979 Total	159,714	20,301	111,121	183	132,338
1980 Total	183,010	30,023	105,351	52	135,635
1981 Total	168,893	26,094	102,042	42	128,345
1982 Total	181,132	23,369	95,515	41	119,090
1983 Total	155,598	18,801	70,573	55	89,652
1984 Total	179,727	19,116	68,503	50	87,870
1985 Total	156,376	16,386	57,304	49	73,933
1986 Total	161,806	16,269	56,841	40	73,313
1987 Total	170,797	15,759	55,069	51	71,084
1988 Total	146,507	15,099	54,187	86	69,714
1989 Total	135,860	13,824	47,446	105	61,795
1990 Total	156,166	16,471	67,030	94	83,970
1991 Total	157,876	16,357	58,636	70	75,343
1992 Total	154,130	15,714	56,135	67	72,183
1993 Total	111,341	15,674	46,770	89	62,890
1994 Total	126,897	16,644	46,344	69	63,333
1995 Total	126,304	15,392	35,102	65	50,821
1996 Total	114,623	15,216	32,473	91	48,146
1997 Total	98,826	15,456	33,336	469	51,138
1998 Total	120,501	16,343	37,451	559	56,591
1999 Total ^f	141,604	17,995	34,256	372	54,109
2000 Total	102,296	15,127	24,748	211	40,932
2001 January	96,545	17,526	25,010	248	43,775
February	98,220	18,121	29,617	207	48,775
March	109,154	17,505	27,966	196	46,450
April	118,523	17,513	28,933	184	47,365
May	127,521	17,827	34,970	177	53,681
June	126,683	18,996	33,171	308	53,707
July	119,005	19,778	34,054	308	55,374
August	113,066	18,515	28,384	262	48,209
September	115,750	18,864	30,494	402	51,369
October	126,747	18,957	32,530	438	53,675
November	135,428	19,473	33,463	445	55,161
December	138,496	20,486	34,594	390	57,031
2002 January	R 139,400	R 18,558	R 34,833	R 798	R 58,283
February	R 143,151	R 18,314	R 32,792	R 912	R 56,353
March	R 146,443	R 18,866	R 28,447	R 1,082	R 53,500
April	R 153,375	R 17,693	R 28,485	R 1,144	R 52,683
May	R 155,313	R 18,305	R 28,241	R 1,149	R 53,047
June	R 152,134	R 18,113	R 30,412	R 1,206	R 55,190
July	R 142,634	R 17,206	R 26,986	R 1,208	R 50,921
August	R 137,130	R 17,439	R 25,697	R 1,393	R 50,820
September	R 135,962	R 16,967	R 22,841	R 1,508	R 48,117
October	R 140,800	R 16,838	23,926	R 1,667	R 49,829
November	R 144,608	R 16,959	R 25,127	R 1,714	R 51,767
December	R 141,714	R 17,413	R 25,723	R 1,711	R 52,490
2003 January	135,771	15,431	20,870	350	38,051
February	128,828	14,564	20,621	306	36,713
March	131,162	19,849	20,961	315	42,385
April	138,895	15,351	22,737	1,519	45,681
May	143,884	15,058	26,772	1,702	50,339
June	142,325	15,426	24,447	1,675	48,250
July	132,964	16,570	25,029	1,672	49,957
August	125,725	15,771	24,758	1,638	48,722
September	R 122,425	R 20,509	R 24,796	R 1,601	R 53,309
October	F 134,079	F 16,307	F 24,738	F 1,694	F 49,055

^a Anthracite, bituminous coal, subbituminous coal, and lignite.

^b For 1973-1979, gas turbine and internal combustion plant stocks of petroleum. For 1980-2001, electric utility data are for light oil (fuel oil nos. 1 and 2, and small amounts of kerosene and jet fuel).

^c For 1973-1979, steam plant stocks of petroleum. For 1980-2001, electric utility data are for heavy oil (fuel oil nos. 5 and 6, and small amounts of fuel oil no. 4).

^d Petroleum coke is converted from short tons to barrels by multiplying by 5.

^e Distillate fuel oil, residual oil, and petroleum coke. Data for 2002 also include small amounts of jet fuel, kerosene, other petroleum liquids, and waste oil.

^f Through 1998, data are for stocks at electric utilities only. Beginning in 1999, data also include stocks at independent power producers.

R=Revised, F=Forecast.

Notes: • The electric power sector comprises electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose

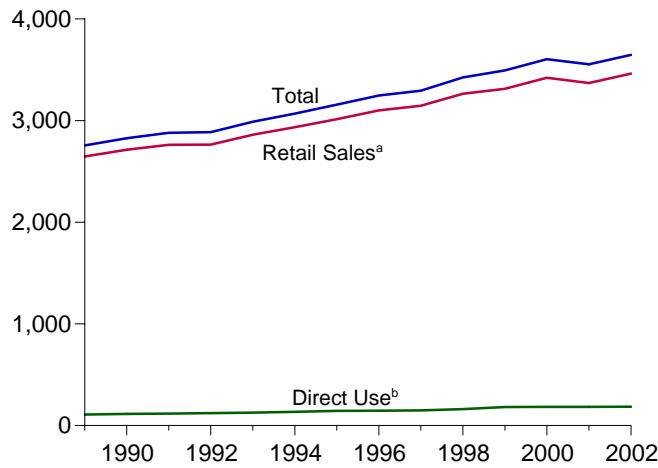
primary business is to sell electricity, or electricity and heat, to the public. • Stocks are at end of year. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: <http://www.eia.doe.gov/emeu/mer/elect.html>.

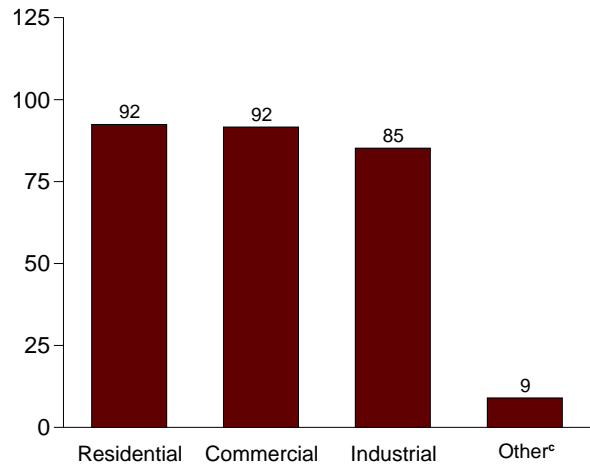
Sources: • **1973-September 1977:** Federal Power Commission, Form FPC-4, "Monthly Power Plant Report." • **October 1977-1981:** Federal Energy Regulatory Commission, Form FPC-4, "Monthly Power Plant Report." • **1982-1988:** Energy Information Administration (EIA), Form EIA-759, "Monthly Power Plant Report." • **1989-1997:** EIA, Form EIA-759, "Monthly Power Plant Report" and Form EIA-867, "Annual Nonutility Power Producer Report." • **1998-2000:** EIA, Form EIA-759, "Monthly Power Plant Report" and Form EIA-860B, "Annual Electric Generator Report—Nonutility." • **2001:** EIA, Form EIA-860, "Annual Electric Generator Report" and Form EIA-906, "Power Plant Report." • **2002-September 2003:** EIA, Form EIA-906, "Power Plant Report." • **October 2003:** EIA, Short-Term Integrated Forecasting System.

Figure 7.5 Electricity End Use
(Billion Kilowatthours)

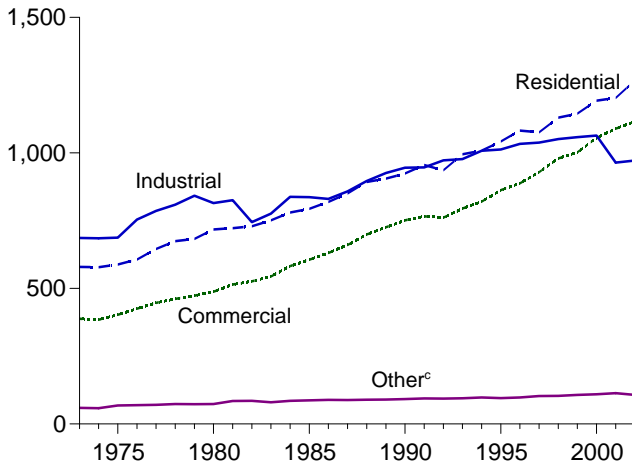
Electricity End Use Overview, 1989-2002



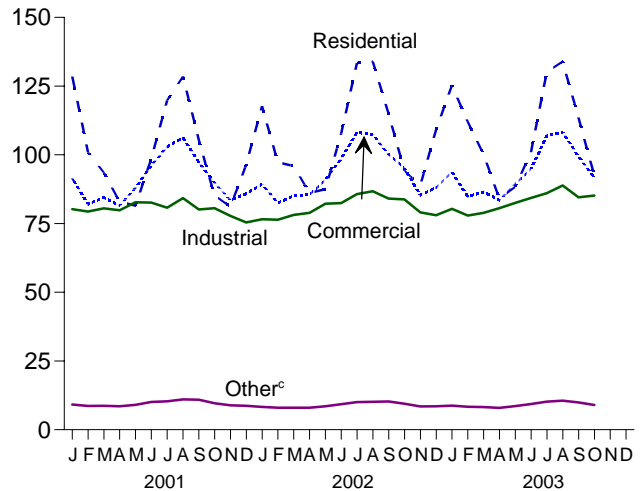
Retail Sales^a by Sector, October 2003



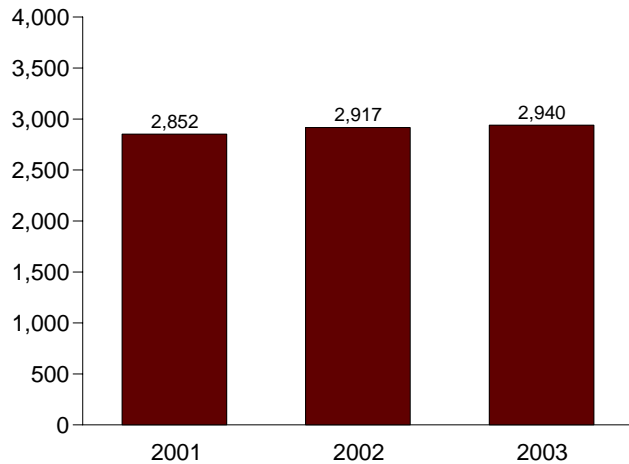
Retail Sales^a by Sector, 1973-2002



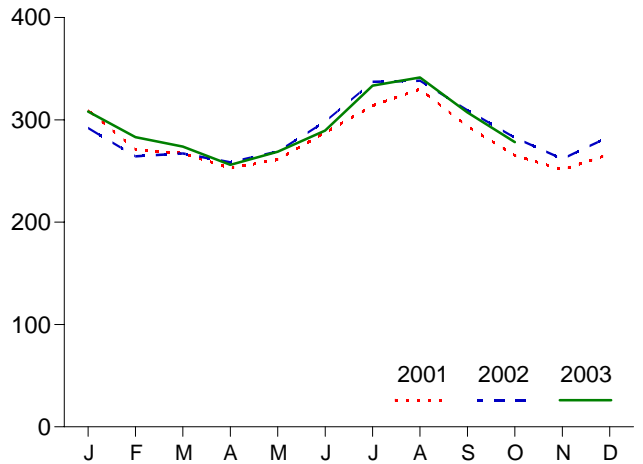
Retail Sales^a by Sector, Monthly



Retail Sales^a Total, January-October



Retail Sales^a Total, Monthly



^aElectricity retail sales to ultimate customers reported by electric utilities and other energy service providers.

^bCommercial and industrial facility use of onsite net electricity generation; and electricity sales among adjacent or co-located facilities for which revenue information is not available.

^cPublic street and highway lighting, other sales to public authorities, sales to railroads and railways, and interdepartmental sales.

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

Web Page: <http://www.eia.doe.gov/emeu/mer/elect.html>.

Source: Table 7.5.

Table 7.5 Electricity End Use
(Million Kilowatthours)

	Retail Sales ^a					Direct Use ^c	Total
	Residential	Commercial	Industrial	Other ^b	Total		
1973 Total	579,231	388,266	686,085	59,326	1,712,909	NA	1,712,909
1974 Total	578,184	384,826	684,875	58,039	1,705,924	NA	1,705,924
1975 Total	588,140	403,049	687,680	68,222	1,747,091	NA	1,747,091
1976 Total	606,452	425,094	754,069	69,631	1,855,246	NA	1,855,246
1977 Total	645,239	446,514	786,037	70,571	1,948,361	NA	1,948,361
1978 Total	674,466	461,163	809,078	73,215	2,017,922	NA	2,017,922
1979 Total	682,819	473,307	841,903	73,070	2,071,099	NA	2,071,099
1980 Total	717,495	488,155	815,067	73,732	2,094,449	NA	2,094,449
1981 Total	722,265	514,338	825,743	84,756	2,147,103	NA	2,147,103
1982 Total	729,520	526,397	744,949	85,575	2,086,441	NA	2,086,441
1983 Total	750,948	543,788	775,999	80,219	2,150,955	NA	2,150,955
1984 Total	780,092	582,621	837,836	85,248	2,285,796	NA	2,285,796
1985 Total	793,934	605,989	836,772	87,279	2,323,974	NA	2,323,974
1986 Total	819,088	630,520	830,531	88,615	2,368,753	NA	2,368,753
1987 Total	850,410	660,433	858,233	88,196	2,457,272	NA	2,457,272
1988 Total	892,866	699,100	896,498	89,598	2,578,062	NA	2,578,062
1989 Total	905,525	725,861	925,659	89,765	2,646,809	108,145	2,754,954
1990 Total	924,019	751,027	945,522	91,988	2,712,555	114,036	2,826,591
1991 Total	955,417	765,664	946,583	94,339	2,762,003	118,033	2,880,036
1992 Total	935,939	761,271	972,714	93,442	2,763,365	122,251	2,885,616
1993 Total	994,781	794,573	977,164	94,944	2,861,462	127,503	2,988,966
1994 Total	1,008,482	820,269	1,007,981	97,830	2,934,563	134,111	3,068,674
1995 Total	1,042,501	862,685	1,012,693	95,407	3,013,287	144,063	3,157,350
1996 Total	1,082,512	887,445	1,033,631	97,539	3,101,127	145,857	3,246,984
1997 Total	1,075,880	928,633	1,038,197	102,901	3,145,610	148,428	3,294,039
1998 Total	1,130,109	979,401	1,051,203	103,518	3,264,231	160,897	3,425,128
1999 Total	1,144,923	1,001,996	1,058,217	106,952	3,312,087	182,508	3,494,595
2000 Total	1,192,446	1,055,232	1,064,239	109,496	3,421,414	E 183,263	3,604,677
2001 January	128,464	91,407	80,245	9,167	309,283	E 15,629	324,912
February	101,026	82,072	79,349	8,636	271,083	E 14,116	285,199
March	93,568	84,477	80,533	8,730	267,307	E 15,629	282,936
April	82,937	81,538	79,824	8,525	252,823	E 15,124	267,948
May	81,539	87,955	82,736	9,038	261,269	E 15,629	276,897
June	98,689	96,153	82,616	10,075	287,533	E 15,124	302,658
July	119,819	102,863	80,766	10,355	313,803	E 15,629	329,432
August	128,472	106,234	84,259	11,024	329,988	E 15,629	345,617
September	105,385	97,267	80,133	10,925	293,709	E 15,124	308,834
October	85,207	89,818	80,569	9,660	265,255	E 15,629	280,884
November	81,188	83,539	77,774	8,902	251,404	E 15,124	266,528
December	96,354	85,830	75,421	8,717	266,322	E 15,629	281,951
Total	1,202,647	1,089,154	964,224	113,756	3,369,781	E 184,014	3,553,795
2002 January	R 117,742	R 89,366	R 76,600	R 8,315	R 292,023	E 15,693	R 307,715
February	R 97,309	R 82,526	R 76,413	R 8,028	R 264,275	E 14,174	R 278,449
March	R 95,919	R 85,055	R 78,122	R 8,010	R 267,105	E 15,693	R 282,798
April	R 86,103	R 85,549	R 78,918	R 8,009	R 258,578	E 15,186	R 273,765
May	R 87,494	R 90,819	R 82,242	R 8,501	R 269,055	E 15,693	R 284,747
June	R 107,853	R 98,638	R 82,432	R 9,306	R 298,230	E 15,186	R 313,416
July	R 133,389	R 108,091	R 85,724	R 10,064	R 337,268	E 15,693	R 352,961
August	R 133,951	R 107,439	R 86,739	R 10,183	R 338,312	E 15,693	R 354,005
September	R 114,951	R 100,138	R 84,107	R 10,266	R 309,462	E 15,186	R 324,648
October	R 94,237	R 95,188	R 83,783	R 9,456	R 282,665	E 15,693	R 298,358
November	R 88,926	R 85,363	R 79,057	R 8,464	R 261,810	E 15,186	R 276,997
December	R 109,085	R 88,076	R 78,032	R 8,546	R 283,738	E 15,693	R 299,431
Total	R 1,116,248	R 1,116,248	R 972,168	R 107,146	R 3,462,521	E 184,768	R 3,647,289
2003 January	125,307	93,712	80,351	8,743	308,113	E 15,693	323,806
February	112,021	84,886	77,901	8,327	283,136	E 14,174	297,310
March	100,154	86,482	78,914	8,265	273,816	E 15,693	289,508
April	84,102	83,470	80,561	7,924	256,057	E 15,186	271,244
May	88,340	89,391	82,495	8,581	268,807	E 15,693	284,500
June	100,912	94,911	84,296	9,353	289,472	E 15,186	304,658
July	130,254	106,961	86,064	10,232	333,510	E 15,693	349,203
August	133,889	108,218	88,825	10,550	341,481	E 15,693	357,174
September	R 113,506	R 99,408	R 84,526	R 9,939	307,379	E 15,186	R 322,566
October	F 92,407	F 91,647	F 85,184	F 9,021	F 278,260	E 15,693	F 293,952
10-Month Total ...	E 1,080,893	E 939,085	E 829,119	E 90,935	E 2,940,032	E 153,889	E 3,093,922
2002 10-Month Total ...	1,068,948	942,809	815,079	90,137	2,916,972	E 153,889	3,070,862
2001 10-Month Total ...	1,025,104	919,784	811,029	96,137	2,852,055	E 153,261	3,005,316

^a Electricity retail sales to ultimate customers reported by electric utilities and other energy service providers.

^b Public street and highway lighting, other sales to public authorities, sales to railroads and railways, and interdepartmental sales.

^c Commercial and industrial facility use of onsite net electricity generation; and electricity sales among adjacent or co-located facilities for which revenue information is not available.

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

Web Page: <http://www.eia.doe.gov/emeu/mer/elect.html>.

Sources: Retail Sales: • 1973-September 1977: Federal Power Commission (FPC), Form FPC-5, "Monthly Statement of Electric Operating Revenue and Income."

• October 1977-February 1980: Federal Energy Regulatory Commission (FERC), Form FPC-5, "Monthly

Statement of Electric Operating Revenue and Income." • March 1980-1982: FERC, Form FPC-5, "Electric Utility Company Monthly Statement."

• 1983: Energy Information Administration (EIA), Form EIA-826, "Monthly Electric Utility Sales and Revenue Report with State Distributions" (formerly "Electric Utility Company Monthly Statement").

• 1984-1989: EIA, Form EIA-861, "Annual Electric Utility Report." • 1990-September 2003: EIA, *Electric Power Monthly*, December 2003, Table 5.1.

• October 2003: EIA, Short-Term Integrated Forecasting System (STIFS). Direct Use, Annual: • 1989-1997: EIA, Form EIA-867, "Annual Nonutility Power Producer Report."

• 1998-2000: EIA, Form EIA-860B, "Annual Electric Generator Report—Nonutility."

• 2001 and 2002: EIA, Form EIA-861, "Annual Electric Power Industry Report."

Direct Use, Monthly: • 2001 and 2002: Estimates are derived by dividing the annual value by the number of days in the year and then multiplying by the number of days in the month.

• 2003: Same values as 2002.

Electricity

Note. Classification of Power Plants Into Energy-Use Sectors

The Energy Information Administration (EIA) classifies power plants (both electricity-only and combined-heat-and-power plants) into energy-use sectors based on the North American Industry Classification System (NAICS), which replaced the Standard Industrial Classification (SIC) system in 1997. Plants with a NAICS code of 22 are assigned to the Electric Power Sector. Those with NAICS codes beginning with 11 (agriculture, forestry, fishing, and hunting); 21 (mining, including oil and gas extraction); 23 (construction); 31-33 (manufacturing); 2212 (natural gas distribution); and 22131 (water supply and irrigation systems) are assigned to the Industrial Sector. Those with all other codes are assigned to the Commercial Sector. Form EIA-860, "Annual Electric Generator Report," asks respondents to indicate the primary purpose of the facility by assigning a NAICS code from the universal list at: www.census.gov/epcd/naics02/naicod02.htm.

Table 7.1 Sources: Imports and Exports of Electricity

Electricity Trade With Canada and Mexico, 1973-1989:

1973–September 1977: Unpublished Federal Power Commission data.

October 1977–1980: Unpublished Economic Regulatory Administration (ERA) data.

1981: Department of Energy (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: DOE, Fossil Energy, Form FE-781R, "Annual Report of International Electrical Export/Import Data."

Electricity Trade with Canada, 1990 Forward:

National Energy Board of Canada, data for total sales (firm and interruptible; which exclude non-revenue, inadvertent, and service) from Canada to the United States, and data for total purchases (which exclude non-revenue, inadvertent, and service) by Canada from the United States.

Electricity Trade with Mexico, 1990 Forward:

DOE, Fossil Energy, Office of Fuels Programs, Form FE-781R, "Annual Report of International Electrical Export/Import Data."

Table 7.2b Sources:

1973–September 1977: Federal Power Commission, Form FPC-4, "Monthly Power Plant Report."

October 1977–1981: Federal Energy Regulatory Commission, Form FPC-4, "Monthly Power Plant Report."

1982–1988: Energy Information Administration (EIA), Form EIA-759, "Monthly Power Plant Report."

1989–1997: EIA, Form EIA-759, "Monthly Power Plant Report" and Form EIA-867, "Annual Nonutility Power Producer Report."

1998–2000: EIA, Form EIA-759, "Monthly Power Plant Report" and Form EIA-860B, "Annual Electric Generator Report-Nonutility."

2001: EIA, Form EIA-860, "Annual Electric Generator Report" and Form EIA-906, "Power Plant Report."

2002–September 2003: EIA, Form EIA-906, "Power Plant Report."

October 2003: EIA, Short-Term Integrated Forecasting System.

Table 7.3e Notes:

- Data are for fuels consumed to produce electricity; they exclude fuels consumed to produce useful thermal output. Consumption for electricity generation at combined-heat-and-power (CHP) plants is estimated.
- The electric power sector comprises electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public.
- Totals may not equal sum of components due to independent rounding.
- Geographic coverage is the 50 States and the District of Columbia.

Table 7.3e Web Page:

Web Page: <http://www.eia.doe.gov/emeu/mer/elect.html>.

Table 7.3e Sources:

1973–September 1977: Federal Power Commission, Form FPC-4, "Monthly Power Plant Report."

October 1977–1981: Federal Energy Regulatory Commission, Form FPC-4, "Monthly Power Plant Report."

1982–1988: Energy Information Administration (EIA), Form EIA-759, "Monthly Power Plant Report."

1989–1997: EIA, Form EIA-759, "Monthly Power Plant Report" and Form EIA-867, "Annual Nonutility Power Producer Report."

1998–2000: EIA, Form EIA-759, "Monthly Power Plant Report" and Form EIA-860B, "Annual Electric Generator Report-Nonutility."

2001: EIA, Form EIA-860, "Annual Electric Generator Report" and Form EIA-906, "Power Plant Report."

2002–September 2003: EIA, Form EIA-906, "Power Plant Report."

October 2003: EIA, Short-Term Integrated Forecasting System.

Section 8. Nuclear Energy

U.S. nuclear electricity net generation during October 2003 was forecast as 59 net terawatthours (billion kilowatthours) of electricity, 3 percent less than the level in October 2002.

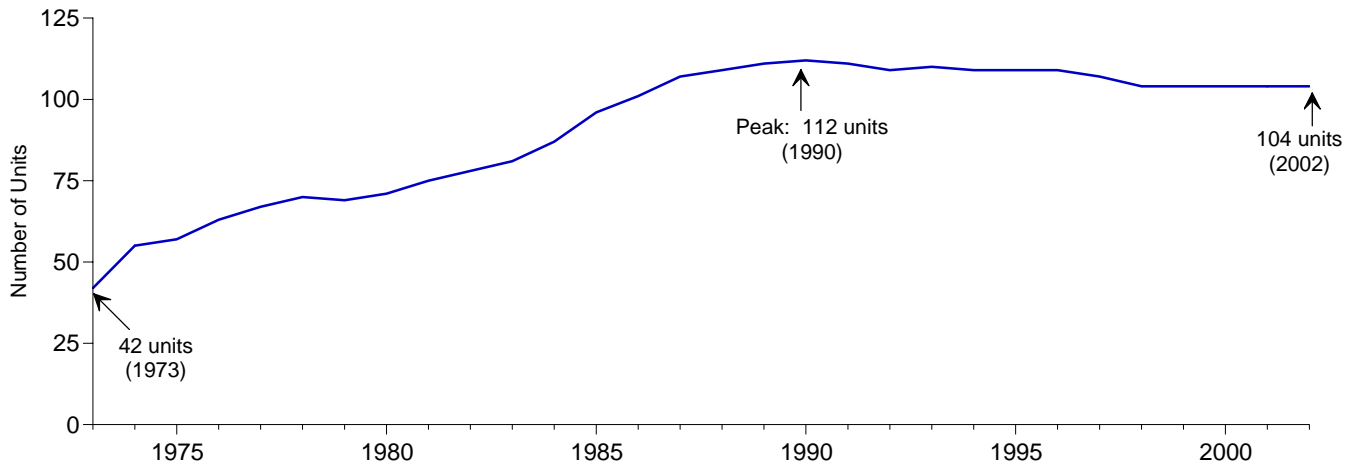
Nuclear units generated at a forecast average capacity factor of 80.1 percent in October 2003, 2.4 percentage points lower than the capacity factor in October 2002.

The nuclear share of total electricity net generation in October 2003 was forecast as 19.6 percent, compared with 19.7 percent 1 year earlier.

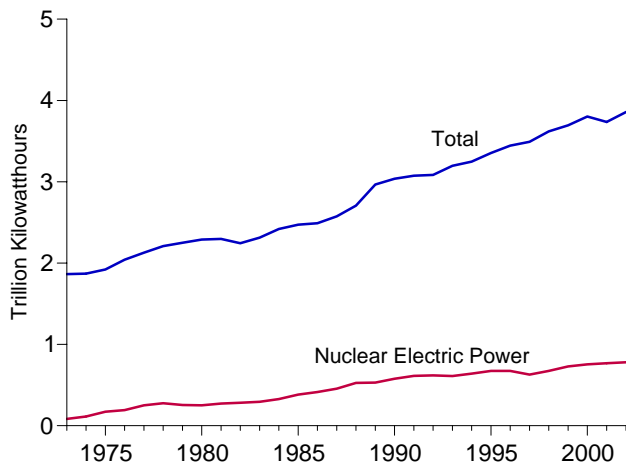
On October 31, 2003, there were 104 operable nuclear generating units in the United States, with a collective net summer capacity of 98.7 million kilowatts of electricity.

Figure 8.1 Nuclear Energy Overview

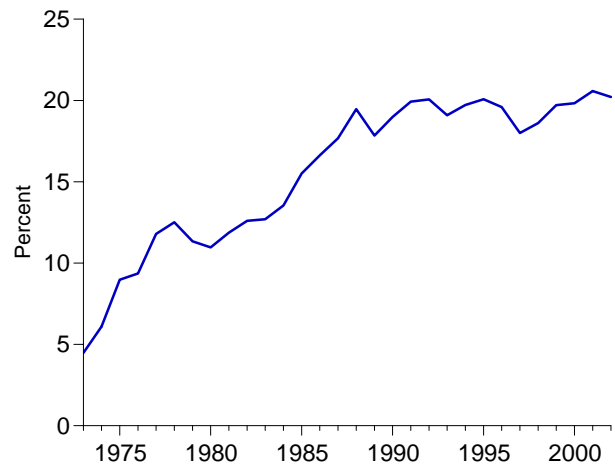
Operable Units, End of Year, 1973-2002



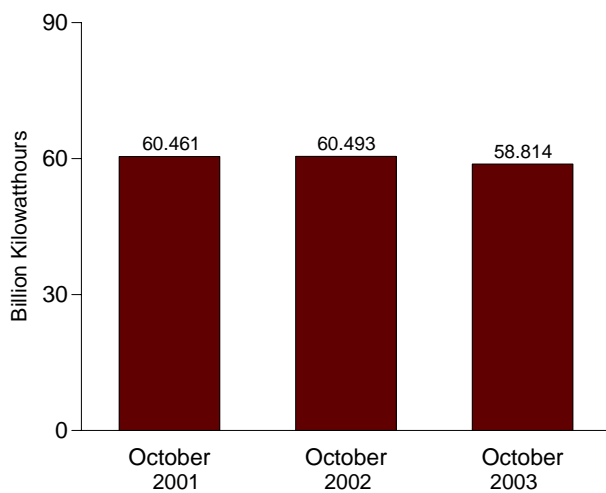
Electricity Net Generation, 1973-2002



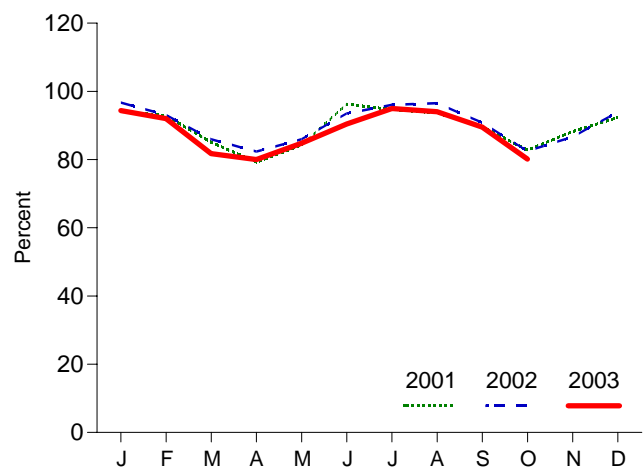
Nuclear Share of Electricity Net Generation, 1973-2002



Nuclear Electricity Net Generation



Capacity Factor, Monthly



Web Page: <http://www.eia.doe.gov/emeu/mer/nuclear.html>
 Sources: Table 7.1 and 8.1.

Table 8.1 Nuclear Energy Overview

	Total Operable Units ^{a,b}	Net Summer Capacity of Operable Units ^{b,c}	Nuclear Electricity Net Generation	Nuclear Share of Electricity Net Generation	Capacity Factor ^d
	Number	Million Kilowatts	Million Kilowatthours	Percent	
1973 Year	42	22,683	83,479	4.5	53.5
1974 Year	55	31,867	113,976	6.1	47.8
1975 Year	57	37,267	172,505	9.0	55.9
1976 Year	63	43,822	191,104	9.4	54.7
1977 Year	67	46,303	250,883	11.8	63.3
1978 Year	70	50,824	276,403	12.5	64.5
1979 Year	69	49,747	255,155	11.3	58.4
1980 Year	71	51,810	251,116	11.0	56.3
1981 Year	75	56,042	272,674	11.9	58.2
1982 Year	78	60,035	282,773	12.6	56.6
1983 Year	81	63,009	293,677	12.7	54.4
1984 Year	87	69,652	327,634	13.5	56.3
1985 Year	96	79,397	383,691	15.5	58.0
1986 Year	101	85,241	414,038	16.6	56.9
1987 Year	107	93,583	455,270	17.7	57.4
1988 Year	109	94,695	526,973	19.5	63.5
1989 Year	111	98,161	529,355	17.8	62.2
1990 Year	112	99,624	576,862	19.0	66.0
1991 Year	111	99,589	612,565	19.9	70.2
1992 Year	109	98,985	618,776	20.1	70.9
1993 Year	110	99,041	610,291	19.1	70.5
1994 Year	109	99,148	640,440	19.7	73.8
1995 Year	109	99,515	673,402	20.1	77.4
1996 Year	109	100,784	674,729	19.6	76.2
1997 Year	107	99,716	628,644	18.0	71.1
1998 Year	104	97,070	673,702	18.6	78.2
1999 Year	104	97,411	728,254	19.7	85.3
2000 Year	104	97,860	753,893	19.8	88.1
2001 January	104	98,159	68,707	20.7	94.1
February	104	98,159	61,272	21.7	92.9
March	104	98,159	62,141	20.7	85.1
April	104	98,159	56,003	20.1	79.2
May	104	98,159	61,512	20.5	84.2
June	104	98,159	68,023	20.8	96.3
July	104	98,159	69,166	19.3	94.7
August	104	98,159	68,389	18.5	93.7
September	104	98,159	63,378	20.6	89.7
October	104	98,159	60,461	20.5	82.8
November	104	98,159	62,342	22.3	88.2
December	104	98,159	67,431	22.1	92.3
Year	104	98,159	768,826	20.6	89.4
2002 January	104	98,564	70,926	22.2	96.7
February	104	98,564	61,658	R 21.9	93.1
March	104	98,564	63,041	R 20.8	86.0
April	104	98,564	58,437	20.2	82.4
May	104	98,564	63,032	20.5	86.0
June	104	98,564	66,372	19.5	93.5
July	104	98,564	70,421	18.5	96.0
August	104	98,564	70,778	R 18.9	96.5
September	104	98,564	64,481	R 19.5	90.9
October	104	98,564	60,493	R 19.7	82.5
November	104	98,564	61,520	R 20.8	86.7
December	104	98,564	68,905	R 21.2	94.0
Year	104	98,564	780,064	R 20.2	90.4
2003 January	104	98,564	69,211	20.5	94.4
February	104	98,564	60,942	20.5	92.0
March	104	98,564	59,933	19.8	81.7
April	104	98,564	56,776	20.1	80.0
May	104	98,564	62,194	20.4	84.8
June	104	98,564	64,181	19.8	90.4
July	104	98,564	69,653	18.7	95.0
August	104	R 98,657	69,024	18.3	R 94.0
September	104	R 98,657	R 63,584	R 20.1	R 89.5
October	104	98,657	F 58,814	F 19.6	F 80.1
10 Months	104	98,657	E 634,311	E 19.7	E 88.2
2002 10 Months	104	98,564	649,638	20.1	91.5
2001 10 Months	104	98,159	639,054	20.3	89.3

^a Total of nuclear generating units holding full-power licenses, or equivalent permission to operate, at the end of the period—see Note 1 at end of section. Although Browns Ferry 1 was shut down in 1985, the unit has remained fully licensed and thus has continued to be counted as operable during the shutdown; in May 2002, the Tennessee Valley Authority announced its intention to have the unit resume operation in 2007—see Note 1(a) at end of section. For additional information on nuclear generating units, see *Annual Energy Review 2001*, November 2002, Table 9.1.

^b At end of period.

^c For the definition of "Net Summer Capacity," see Note 2(a) at end of section.

^d For an explanation of the method of calculating the capacity factor, see Note 2 at end of section.

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

Notes: • See Note 1 at end of section for discussion of reactor unit coverage. • 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.

Web Page: <http://www.eia.doe.gov/emeu/mer/nuclear.html>.

Sources: See end of section.

Nuclear Energy

Note 1. A reactor is generally defined as operable while it possessed a full-power license from the Nuclear Regulatory Commission or its predecessor the Atomic Energy Commission, or equivalent permission to operate, at the end of the year or month shown. The definition is liberal in that it does not exclude units retaining full-power licenses during long, non-routine shutdowns that for a time rendered them unable to generate electricity. Examples are:

(a) In 1985 the five then-active Tennessee Valley Authority (TVA) units (Browns Ferry 1, 2, and 3 and Sequoyah 1 and 2) were shut down under a regulatory forced outage. Browns Ferry 1 remains shut down and has been defueled, while the other units were idle for several years, restarting in 1991, 1995, 1988, and 1988, respectively. All five units are counted as operable during the shutdowns. Browns Ferry 1 is the only one of the five TVA plants that has not returned to service. Because it is still fully licensed to operate, it continues to meet the definition of operable.

(b) Shippingport was shut down from 1974 through 1976 for conversion to a light-water breeder reactor, but is counted as operable from 1957 until its retirement in 1982.

(c) Calvert Cliffs 2 was shut down in 1989 and 1990 for replacement of pressurizer heater sleeves but is counted as operable during those years.

Exceptions to the definition are Shoreham and Three Mile Island 2. Shoreham was granted a full-power license in April 1989, but was shut down two months later and never restarted. In 1991, the license was changed to Possession Only. Although not operable at the end of the year, Shoreham is counted as operable during 1989. A major accident closed Three Mile Island 2 in 1979, and although the unit retained its full-power license for several years, it is considered permanently shut down since that year.

Note 2. Capacity: Nuclear generating units may have more than one type of net capacity rating, including the following:

(a) Net Summer Capacity—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.

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 capacity 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.

Table 8.1 Sources

Total Operable Units and Net Summer Capacity 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. For a list of currently operable units, see: http://eia.doe.gov/cneaf/nuclear/page/nuc_reactors/operational.html.

Nuclear Electricity Net Generation and Nuclear Share of Electricity Net Generation: See Table 7.2a for actual data. The forecast value is derived from EIA's Short-Term Integrated Forecasting System. See Note 10 at end of Section 4 for related information.

Capacity Factor: EIA, Office of Coal, Nuclear, Electric and Alternate Fuels for actual data. The forecast value is derived from EIA's Short-Term Integrated Forecasting System. See Note 10 at end of Section 4 for related information.

Section 9. Energy Prices

Crude Oil. The average price of domestic crude oil at the wellhead was \$26.53 per barrel in October 2003, 5 percent above the level of October 2002. The refiner acquisition cost of imported crude oil in October 2003 was \$27.32 per barrel, 5 percent above the October 2002 level. The average cost of domestic crude oil in October 2003 was \$28.43, 2 percent more than the October 2002 average.

Motor Gasoline. The national city average retail price of unleaded regular gasoline at all types of stations was \$1.54 per gallon in November 2003, 6 percent higher than the price in November 2002. The price of unleaded premium gasoline averaged \$1.72 in November 2003, 5 percent higher than the price in November 2002.

Residual Fuel Oil. The average price, excluding taxes, of residual fuel oil sold to end users in October 2003 was 65 cents per gallon, 1 percent higher than the previous month's price but 1 percent lower than the October 2002 average. The average resale price, excluding taxes, of residual fuel oil in October 2003 was 60 cents, 2 percent higher than the September 2003 price but 1 percent lower than the price 1 year earlier.

Aviation Fuel. The average price of aviation gasoline sold to end users in October 2003 was \$1.51 per gallon, 5 percent lower than the previous month's average price but 5 percent higher than the October 2002 average price. The average price, excluding taxes, of kerosene-type jet fuel sold to end users in October 2003 was 85 cents per gallon, 3 percent higher than the previous month's average price but the same as the October 2002 average price.

No. 2 Distillate Fuel Oil. The October 2003 national average price, excluding taxes, of heating oil sold to residential customers was \$1.24 per gallon, 4 percent higher than the September 2003 price and 8 percent higher than the October 2002 price. The average price of No. 2 fuel oil sold to all end users was 88 cents per gallon in October 2003, 8 percent higher than both the September 2003 price and the price 1 year earlier.

Electricity. The average retail price of electricity sold to all ultimate consumers in the United States in September 2003 (latest month for which data are available) was 7.55 cents per kilowatt-hour, 2 percent higher than the average price in September 2002. The price of electricity sold to residential consumers in September 2003 averaged 8.90 cents per kilowatt-hour, 3 percent higher than the September 2002 price. The price of electricity sold to commercial consumers averaged 8.21 cents per kilowatt-hour in September 2003, 2 percent higher than the September 2002 price. The price of electricity sold to other consumers was 7.01 cents per kilowatt-hour, 7 percent higher than the September 2002 price. The price of electricity sold to industrial users in September 2003 averaged 5.02 cents per kilowatt-hour, 1 percent higher than the price 1 year earlier.

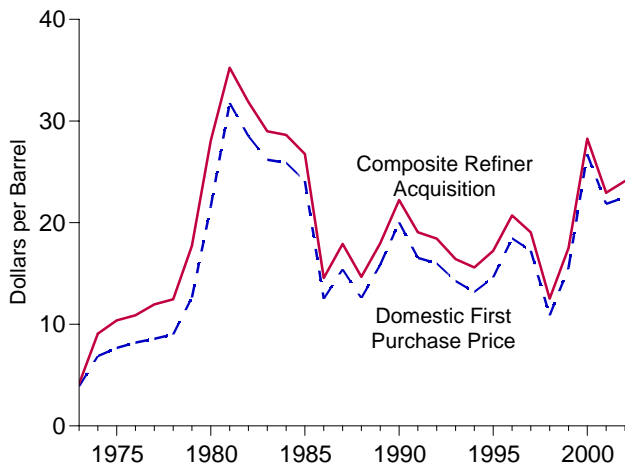
Beginning with January 1986, new series of national average price estimates were based on a statistically derived sample of both publicly and privately owned electric utilities. Previously, average price estimates were derived from selected privately owned electric utilities and were not national averages.

Natural Gas. The average wellhead price of natural gas for August 2003 (latest month for which data are available) was estimated as \$4.72 per thousand cubic feet, 70 percent higher than the August 2002 price.

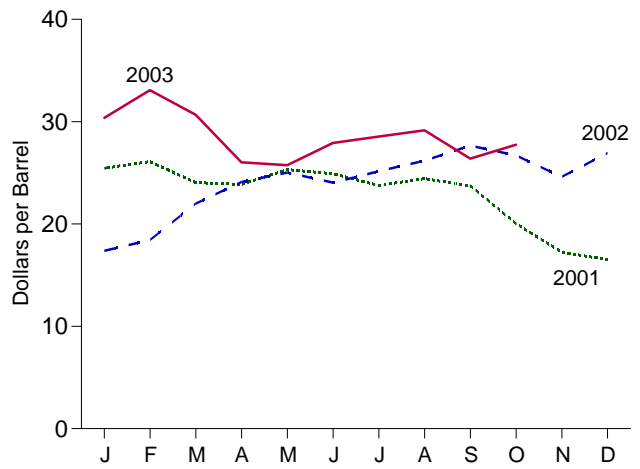
The average price of natural gas delivered to the electric power sector was \$5.22 per thousand cubic feet in August 2003 (latest month for which data are available), 52 percent higher than the August 2002 price. The average price of natural gas used by residential consumers in August 2003 was \$12.76 per thousand cubic feet, 22 percent higher than the August 2002 price. The average price of natural gas used by commercial consumers in August 2003 was \$8.19 per thousand cubic feet, 28 percent higher than the August 2002 price. The average price of natural gas used by industrial consumers in August 2003 was \$5.25 per thousand cubic feet, 45 percent above the August 2002 price.

Figure 9.1 Petroleum Prices

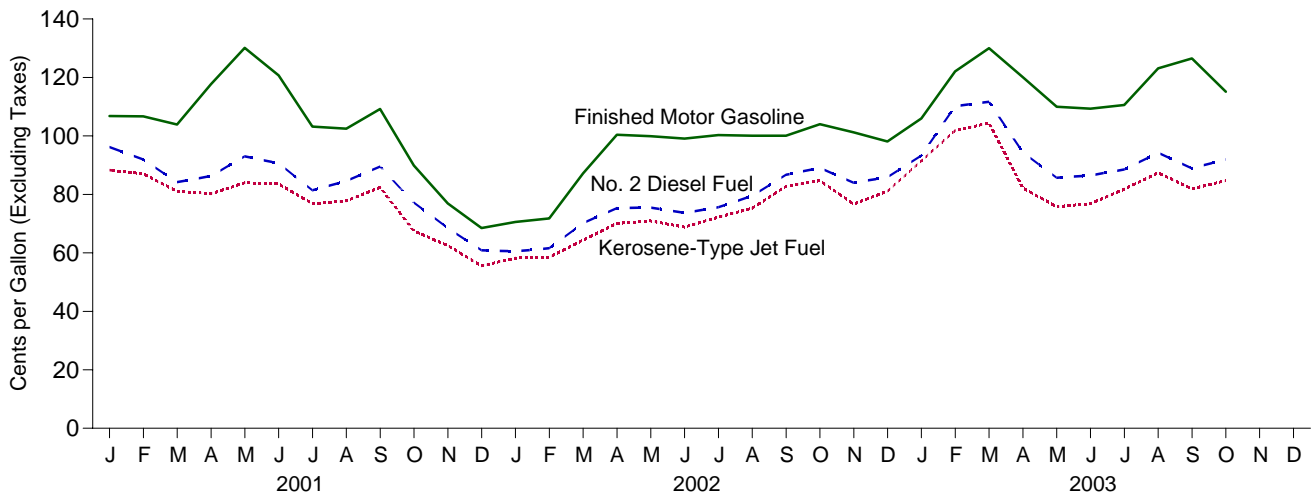
Crude Oil Prices, 1973-2002



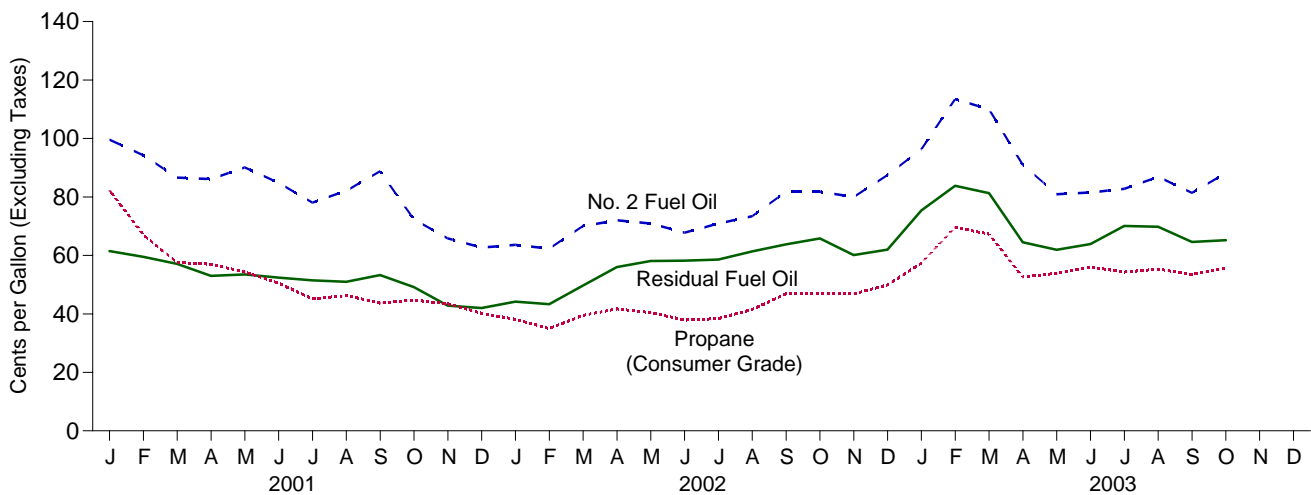
Composite Refiner Acquisition Cost, Monthly



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



Web Page: <http://www.eia.doe.gov/emeu/mer/prices.html>.
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	6.521	6.41	4.17	4.08	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 Average	14.62	15.69	16.78	17.33	17.14	17.23
1996 Average	18.46	19.32	20.31	20.77	20.64	20.71
1997 Average	17.23	16.94	18.11	19.61	18.53	19.04
1998 Average	10.87	10.76	11.84	13.18	12.04	12.52
1999 Average	15.56	16.47	17.23	17.90	17.26	17.51
2000 Average	26.72	26.27	27.53	29.11	27.70	28.26
2001 January	24.64	22.46	24.04	26.83	24.49	25.45
February	25.27	23.01	24.23	27.66	24.97	26.09
March	22.98	20.88	22.89	25.64	23.01	24.05
April	23.39	21.71	23.06	25.12	22.99	23.87
May	24.06	22.71	24.14	26.37	24.63	25.31
June	23.43	22.74	23.83	26.30	23.95	24.92
July	22.82	21.43	22.88	25.13	22.76	23.76
August	23.08	22.02	23.29	25.44	23.77	24.44
September	22.37	21.01	22.22	25.48	22.51	23.73
October	18.73	17.15	18.38	21.79	18.76	20.04
November	16.40	15.03	16.24	18.99	16.06	17.24
December	15.54	15.22	16.05	17.34	15.95	16.52
Average	21.84	20.46	21.82	24.33	22.00	22.95
2002 January	15.89	16.01	17.29	17.84	17.04	17.38
February	16.93	17.67	19.17	18.70	18.24	18.43
March	20.28	21.60	22.24	21.61	22.29	22.00
April	22.52	23.04	24.15	24.26	23.98	24.10
May	23.51	23.16	24.49	25.78	24.44	25.03
June	22.59	22.63	23.95	24.81	23.45	24.05
July	23.51	23.72	25.01	25.37	24.99	25.16
August	24.76	24.57	25.93	26.87	25.68	26.19
September	26.08	25.80	26.78	28.40	27.14	27.66
October	25.29	24.32	25.58	27.82	25.99	26.70
November	23.38	22.42	24.22	26.02	23.68	24.60
December	25.29	25.86	27.08	27.25	26.68	26.93
Average	22.51	22.63	23.91	24.65	23.71	24.10
2003 January	28.35	29.16	30.34	30.47	30.32	30.38
February	31.85	29.78	31.33	33.98	32.42	33.08
March	30.09	26.32	28.86	32.68	29.31	30.68
April	25.46	22.75	25.21	28.54	24.52	26.03
May	24.96	23.49	25.39	26.75	25.15	25.74
June	26.83	25.35	27.36	29.07	27.22	27.92
July	27.53	26.11	27.73	29.54	27.95	28.55
August	27.94	R 26.87	R 28.01	30.28	28.50	29.15
September	R 25.23	R 24.07	R 25.87	R 27.75	25.66	R 26.39
October	26.53	25.81	27.08	28.43	27.32	27.75

^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. 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.

Web Page: <http://www.eia.doe.gov/emeu/mer/prices.html>.

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 Average	16.58	16.73	15.64	17.40	W	16.94	13.86	W	15.36	16.02
1996 Average	20.71	21.33	19.14	21.27	19.28	19.43	17.73	19.22	18.94	19.65
1997 Average	18.81	18.85	16.72	19.43	15.16	18.59	15.33	15.24	16.26	17.51
1998 Average	12.11	12.56	10.49	12.97	8.87	12.52	9.31	9.09	10.20	11.21
1999 Average	17.46	17.20	15.89	17.32	17.65	19.14	14.33	17.15	15.90	16.84
2000 Average	27.90	29.04	25.39	28.70	24.62	27.21	24.45	24.72	25.56	26.77
2001 January	24.28	26.72	21.31	26.46	19.79	25.87	20.97	19.62	21.55	23.14
February	25.68	27.06	21.39	26.82	20.58	W	20.43	20.94	22.22	23.67
March	21.97	23.63	18.77	24.70	20.46	W	19.12	20.37	20.83	20.94
April	24.71	25.04	19.78	W	20.83	W	21.12	20.36	21.74	21.69
May	27.45	26.23	21.20	28.74	20.54	28.19	20.10	20.13	21.77	23.62
June	26.87	26.81	21.39	27.63	20.80	W	17.95	20.73	21.48	23.66
July	23.85	25.86	19.18	24.98	W	24.88	18.68	21.03	20.58	22.25
August	24.10	25.23	20.49	25.78	18.93	W	19.67	20.49	21.26	22.59
September	24.03	22.78	20.82	24.60	16.24	23.81	17.11	16.56	18.88	22.42
October	19.70	20.40	16.45	20.14	14.23	20.48	14.76	14.37	15.76	18.17
November	17.49	18.44	14.32	19.02	14.93	W	11.90	14.25	14.05	15.68
December	17.49	18.48	14.26	19.08	15.34	W	12.80	15.21	14.55	15.65
Average	23.25	24.25	18.89	24.85	18.98	23.30	18.01	18.89	19.73	21.04
2002 January	19.12	18.93	14.25	19.63	W	W	13.49	17.46	15.79	16.17
February	18.76	19.28	15.91	20.73	21.11	W	14.84	19.77	17.61	17.71
March	22.65	23.88	20.21	24.39	23.42	W	19.31	23.08	21.49	21.67
April	24.36	25.57	22.42	25.66	23.17	W	20.02	23.38	22.48	23.38
May	24.49	26.11	22.83	W	23.19	24.52	19.90	22.78	22.26	23.72
June	22.93	24.30	22.05	24.39	23.55	23.24	20.50	23.56	22.26	22.84
July	24.63	W	22.50	26.01	25.12	25.39	21.71	24.99	23.46	23.92
August	25.93	26.10	23.70	27.28	25.10	W	22.67	25.33	24.12	24.89
September	27.97	29.11	25.31	28.56	24.67	28.41	23.98	24.71	25.09	26.30
October	26.57	27.03	23.68	27.28	23.46	28.20	21.59	23.06	22.88	25.29
November	23.58	24.14	20.63	24.93	25.12	25.10	20.18	24.58	22.36	22.46
December	28.75	27.75	24.25	29.98	26.75	W	23.41	26.64	26.53	25.51
Average	24.09	24.64	21.60	25.38	23.92	24.50	20.13	23.38	22.18	22.93
2003 January	31.59	32.94	28.32	31.76	27.76	31.66	W	27.81	29.08	29.21
February	33.49	35.25	28.44	33.64	26.67	32.97	28.50	27.17	28.65	30.53
March	29.34	31.28	24.98	30.82	24.87	28.78	22.83	25.09	25.39	26.99
April	24.81	24.85	21.54	25.27	21.01	W	21.00	21.12	21.84	23.41
May	25.63	25.13	22.58	27.03	22.56	25.28	21.61	22.61	22.80	24.00
June	26.66	27.63	24.39	27.79	26.55	W	22.98	26.47	24.90	25.67
July	27.83	W	25.64	29.14	25.54	W	24.51	25.58	25.63	26.43
August	^R 28.76	28.97	25.88	30.08	^R 26.22	29.42	24.87	^R 25.99	^R 26.33	^R 27.20
September	^R 26.41	^R 27.44	^R 23.33	^R 27.36	^R 23.64	W	^R 22.76	^R 23.67	^R 23.72	^R 24.35
October	29.47	28.91	23.79	30.42	W	W	24.01	24.70	25.27	26.15

^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 is included in the data through 1992 and Gabon through 1995.

^c Based on October, November, and December data only.

^d No data reported.

^R=Revised. 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.

Web Page: <http://www.eia.doe.gov/emeu/mer/prices.html>

Sources: See end of section.

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)	(^d)	12.61	12.70	12.50	NA	12.36	12.64	12.70
1976 Average	12.71	13.36	(^d)	(^d)	12.64	13.81	13.06	W	11.89	13.03	13.32
1977 Average	14.04	14.13	(^d)	(^d)	13.82	15.29	13.69	14.83	13.11	13.85	14.35
1978 Average	14.07	14.41	(^d)	(^d)	13.56	14.88	13.94	14.53	12.84	14.01	14.34
1979 Average	21.06	20.22	(^d)	(^d)	20.77	22.97	18.95	22.97	17.65	20.42	21.29
1980 Average	34.76	30.11	W	W	31.77	37.15	29.80	35.68	25.92	30.59	33.56
1981 Average	36.84	32.32	(^d)	(^d)	33.70	39.66	34.20	37.29	29.91	34.61	36.60
1982 Average	33.08	27.15	(^d)	(^d)	28.63	36.16	34.99	34.25	24.93	34.94	34.81
1983 Average	29.31	25.63	(^d)	(^d)	25.78	30.85	29.27	30.87	22.94	29.37	29.84
1984 Average	28.49	26.56	(^d)	(^d)	26.85	30.36	29.20	29.45	25.19	29.07	29.06
1985 Average	27.39	25.71	(^d)	(^d)	25.63	28.96	24.72	28.36	24.43	25.50	26.86
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 Average	17.66	16.65	17.45	16.19	18.25	16.84	17.91	14.81	16.78	16.61	16.95
1996 Average	21.86	19.94	22.02	19.64	21.95	20.49	20.88	18.59	20.45	20.14	20.47
1997 Average	20.24	17.63	19.71	17.30	20.64	17.52	20.64	16.35	17.44	17.73	18.45
1998 Average	13.37	11.62	13.26	11.04	14.14	11.16	13.55	10.16	11.18	11.46	12.22
1999 Average	18.37	17.54	18.09	16.12	17.63	17.48	18.26	15.58	17.37	16.94	17.51
2000 Average	29.57	26.69	29.68	26.03	30.04	26.58	29.26	26.05	26.77	27.29	27.80
2001 January	26.56	21.98	28.27	21.51	28.37	23.58	28.29	22.89	23.51	24.08	24.01
February	27.48	22.48	28.71	21.61	28.75	23.00	29.12	22.15	22.96	23.90	24.61
March	24.87	21.57	26.21	19.52	27.40	22.62	26.29	21.13	22.49	23.21	22.46
April	26.63	21.35	26.71	19.57	27.01	22.58	25.95	22.54	22.23	23.26	22.79
May	28.58	22.63	27.83	21.22	29.33	22.63	28.27	21.91	22.47	23.67	24.73
June	28.40	22.53	28.86	21.34	29.31	22.65	26.91	20.41	22.25	23.26	24.40
July	25.59	22.60	27.45	19.79	26.68	22.54	26.02	20.27	22.28	22.43	23.51
August	25.54	23.95	26.31	21.14	27.01	21.78	25.91	21.21	22.06	22.70	23.93
September	25.66	22.55	24.86	21.40	26.45	19.21	24.83	19.40	19.91	21.06	23.55
October	21.21	18.48	21.77	17.19	22.34	16.31	21.27	16.26	16.99	17.58	19.28
November	18.91	14.84	20.22	14.82	20.41	16.44	W	13.62	16.17	16.12	16.37
December	18.49	14.65	18.92	14.64	19.98	16.32	W	14.40	15.87	16.02	16.09
Average	25.13	20.72	25.88	19.37	26.55	20.98	25.32	19.81	20.73	21.52	22.17
2002 January	20.03	15.64	19.86	14.87	20.41	19.02	W	15.07	18.02	17.57	16.95
February	19.70	18.00	20.33	16.29	21.57	21.99	20.83	16.49	20.67	19.68	18.58
March	22.99	20.05	24.54	20.38	24.33	24.01	23.72	20.82	23.31	22.79	21.72
April	25.24	23.37	26.22	22.90	26.47	24.18	25.35	22.02	24.06	24.03	24.26
May	25.52	23.97	25.85	23.45	26.56	24.48	25.93	21.92	24.33	24.11	24.78
June	24.48	23.15	24.99	22.61	25.55	24.61	25.12	22.30	24.48	23.98	23.93
July	26.06	24.38	25.99	23.09	26.89	25.97	26.36	23.34	25.77	25.06	24.98
August	26.99	25.63	27.00	24.21	27.75	26.67	27.00	24.43	26.51	25.94	25.92
September	28.93	26.00	29.77	25.76	29.44	25.93	28.20	25.45	25.97	26.37	27.16
October	27.75	25.16	28.07	24.14	28.59	25.02	28.90	23.06	24.92	24.73	26.30
November	25.06	23.24	25.28	21.24	26.53	26.37	26.96	22.02	25.86	24.53	23.92
December	30.65	24.53	28.42	24.63	30.58	28.20	29.38	25.09	27.91	28.07	26.32
Average	25.43	22.98	25.28	22.09	26.45	24.77	26.35	21.93	24.13	23.83	23.97
2003 January	33.28	27.91	34.11	28.71	33.40	30.56	32.89	29.38	30.22	30.79	29.99
February	35.83	30.10	36.79	29.28	35.65	29.25	34.74	30.80	29.85	30.73	31.93
March	32.00	29.93	32.73	26.20	34.29	26.23	31.32	26.51	27.01	28.24	29.52
April	27.77	26.06	26.15	22.24	29.54	24.47	28.23	23.33	24.27	24.86	25.63
May	27.39	24.98	26.85	23.15	28.33	25.36	26.75	23.42	25.11	25.28	25.51
June	28.52	26.91	29.35	25.09	29.49	28.21	29.58	25.06	28.10	27.38	27.33
July	29.60	26.88	30.17	26.08	30.40	27.54	29.83	26.11	27.50	27.58	27.85
August	^R 30.04	27.48	30.24	26.37	31.10	^R 27.08	30.52	26.23	^R 26.93	^R 27.70	28.27
September	^R 27.99	^R 25.18	^R 28.13	^R 23.76	^R 29.02	^R 25.64	^R 28.95	^R 24.09	^R 25.76	^R 25.91	^R 25.82
October	31.07	25.45	29.87	24.41	30.30	27.56	31.17	25.57	27.38	27.35	26.87

^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 is included in the data through 1992 and Gabon through 1995.

^c Based on October, November, and December data only.

^d No data reported.

^R=Revised. ^{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.

Web Page: <http://www.eia.doe.gov/emeu/mer/prices.html>.

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*, January 2004, 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 Average	NA	114.7	133.6	120.5
1996 Average	NA	123.1	141.3	128.8
1997 Average	NA	123.4	141.6	129.1
1998 Average	NA	105.9	125.0	111.5
1999 Average	NA	116.5	135.7	122.1
2000 Average	NA	151.0	169.3	156.3
2001 January	NA	147.2	165.7	152.5
February	NA	148.4	167.1	153.8
March	NA	144.7	163.8	150.3
April	NA	156.4	174.8	161.7
May	NA	172.9	193.4	181.2
June	NA	164.0	188.1	173.1
July	NA	148.2	169.5	156.5
August	NA	142.7	163.6	150.9
September	NA	153.1	172.6	160.9
October	NA	136.2	156.0	144.2
November	NA	126.3	142.7	132.4
December	NA	113.1	131.2	120.0
Average	NA	146.1	165.7	153.1
2002 January	NA	113.9	132.3	120.9
February	NA	113.0	133.0	121.0
March	NA	124.1	145.0	132.4
April	NA	140.7	162.2	149.3
May	NA	142.1	162.5	150.8
June	NA	140.4	160.6	148.9
July	NA	141.2	160.7	149.6
August	NA	142.3	162.0	150.8
September	NA	142.2	161.9	150.7
October	NA	144.9	164.3	153.5
November	NA	144.8	164.3	153.4
December	NA	139.4	158.9	147.7
Average	NA	135.8	157.8	144.1
2003 January	NA	147.3	166.6	155.7
February	NA	164.1	182.8	168.6
March	NA	174.8	192.4	179.1
April	NA	165.9	184.6	170.4
May	NA	154.2	172.9	158.7
June	NA	151.4	170.0	155.8
July	NA	152.4	171.0	156.7
August	NA	162.8	180.8	167.1
September	NA	172.8	191.1	177.1
October	NA	160.3	178.9	164.6
November	NA	153.5	172.4	157.8

^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.

Web Page: <http://www.eia.doe.gov/emeu/mer/prices.html>.

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 Average	38.3	43.6	33.8	37.7	36.3	39.2
1996 Average	45.6	52.6	38.9	43.3	42.0	45.5
1997 Average	41.5	48.8	36.6	40.3	38.7	42.3
1998 Average	29.9	35.4	26.9	28.7	28.0	30.5
1999 Average	38.2	40.5	32.9	36.2	35.4	37.4
2000 Average	62.7	70.8	51.2	56.6	56.6	60.2
2001 January	64.6	74.0	48.5	55.9	56.4	61.5
February	62.5	69.7	49.5	55.1	55.9	59.5
March	57.6	66.6	47.8	52.9	51.8	57.1
April	57.5	64.0	41.8	48.9	48.3	53.0
May	58.4	63.9	44.2	50.2	50.3	53.5
June	53.0	64.1	42.4	49.0	47.9	52.4
July	50.0	63.2	42.2	47.2	46.3	51.5
August	50.4	59.7	41.3	48.0	45.7	51.0
September	51.2	62.2	44.9	51.2	48.9	53.3
October	44.8	59.2	40.0	46.6	42.4	49.2
November	40.5	52.3	31.9	40.2	36.9	42.8
December	40.0	51.2	30.7	39.6	36.3	42.0
Average	52.3	64.2	42.8	49.2	47.6	53.1
2002 January	40.4	51.8	33.7	41.6	38.2	44.2
February	37.1	52.2	33.7	40.9	35.9	43.3
March	46.0	53.5	40.5	48.3	43.7	49.7
April	53.8	59.4	48.0	55.0	51.2	56.0
May	56.3	63.5	52.1	56.6	54.5	58.1
June	53.5	61.4	53.3	57.2	53.4	58.2
July	55.7	63.2	50.9	56.8	53.7	58.6
August	60.6	67.4	55.8	59.2	58.4	61.4
September	60.1	67.8	56.8	62.6	58.7	63.8
October	65.1	72.7	54.5	63.7	60.7	65.8
November	59.1	73.6	58.2	54.8	58.7	60.1
December	67.6	73.9	59.7	56.6	64.1	62.0
Average	54.6	64.0	50.8	54.4	53.0	56.9
2003 January	79.5	86.1	NA	70.9	72.2	75.4
February	93.9	95.6	74.8	77.0	85.8	83.8
March	88.1	97.4	62.5	72.3	77.2	81.3
April	60.0	78.1	52.2	59.4	56.6	64.5
May	62.6	74.9	53.9	58.8	57.7	61.9
June	62.4	71.9	54.5	60.0	57.6	63.9
July	65.0	74.5	58.4	67.7	61.3	70.1
August	66.9	75.4	60.1	67.3	63.0	69.8
September	62.2	72.0	57.2	61.2	59.2	64.6
October	65.0	70.7	57.2	62.8	60.1	65.2

NA=Not available.

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.

Web Page: <http://www.eia.doe.gov/emeu/mer/prices.html>.

Source: EIA, *Petroleum Marketing Monthly*, January 2004, 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 Average	62.6	97.5	53.9	58.0	51.1	53.8	34.4
1996 Average	71.3	105.5	64.6	71.4	63.9	65.9	46.1
1997 Average	70.0	106.5	61.3	65.3	59.0	60.6	41.6
1998 Average	52.6	91.2	45.0	46.5	42.2	44.4	28.8
1999 Average	64.5	100.7	53.3	55.0	49.3	54.6	34.2
2000 Average	96.3	133.0	88.0	96.9	88.6	89.8	59.5
2001 January	94.1	131.0	88.3	106.4	90.0	90.6	86.4
February	93.8	132.0	87.1	93.4	82.4	85.9	66.9
March	91.0	129.3	80.5	83.6	76.2	78.1	60.1
April	106.3	140.5	79.6	83.0	79.1	82.6	58.5
May	115.3	147.0	83.5	86.6	82.3	89.9	56.2
June	98.5	135.0	82.7	82.6	79.0	85.4	48.7
July	84.0	120.9	75.7	74.7	72.7	75.6	43.5
August	90.6	125.9	77.4	81.3	76.6	80.9	45.3
September	94.1	132.0	80.2	80.1	78.7	84.2	46.4
October	74.0	109.7	67.8	73.1	68.2	71.3	46.0
November	63.4	100.5	61.9	63.5	60.6	61.5	41.6
December	58.3	94.9	55.3	58.6	56.6	54.7	38.1
Average	88.6	125.6	76.3	82.1	75.6	78.4	54.0
2002 January	61.2	97.5	57.2	61.9	57.6	54.6	37.4
February	62.8	99.8	57.1	61.1	57.8	56.7	36.4
March	78.4	105.1	63.9	69.8	64.5	66.6	39.7
April	87.1	118.9	69.1	70.5	68.3	70.9	41.6
May	85.9	114.4	69.6	71.1	68.4	70.6	40.8
June	85.6	116.7	67.8	69.4	66.0	68.2	37.9
July	87.8	118.9	71.4	73.2	68.9	71.0	37.5
August	87.4	115.5	73.8	76.4	71.3	75.7	41.5
September	88.9	119.2	81.5	85.5	78.3	83.4	47.1
October	93.0	123.7	84.5	88.5	79.6	85.7	48.9
November	85.0	116.1	75.1	81.3	74.8	78.7	49.4
December	85.9	113.2	79.9	87.9	80.8	82.0	53.3
Average	82.8	114.6	71.6	75.2	69.4	72.4	43.1
2003 January	94.6	124.9	89.5	97.8	89.5	89.2	60.5
February	110.0	130.2	102.8	118.6	107.8	108.1	72.8
March	112.6	135.8	101.7	110.3	104.5	102.1	69.1
April	99.7	126.8	82.6	86.1	82.4	86.7	53.9
May	93.8	121.7	75.1	74.5	75.5	79.3	54.3
June	95.6	NA	77.0	77.5	76.8	81.1	57.5
July	98.1	129.1	81.4	82.8	78.9	83.8	55.9
August	110.2	139.7	86.3	88.2	83.7	88.9	58.5
September	102.5	134.9	^R 80.9	82.7	77.4	80.7	56.6
October	98.3	130.6	84.0	91.5	84.2	87.1	59.7

^a See Note 5 at end of section.

R=Revised. NA=Not available.

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.

Web Page: <http://www.eia.doe.gov/emeu/mer/prices.html>.

Source: EIA, *Petroleum Marketing Monthly*, January 2004, 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 Average	76.5	100.5	54.0	58.9	56.2	56.0	49.2
1996 Average	84.7	111.6	65.1	74.0	67.3	68.1	60.5
1997 Average	83.9	112.8	61.3	74.5	63.6	64.2	55.2
1998 Average	67.3	97.5	45.2	50.1	48.2	49.4	40.5
1999 Average	78.1	105.9	54.3	60.5	55.8	58.4	45.8
2000 Average	110.6	130.6	89.9	112.3	92.7	93.5	60.3
2001 January	106.8	128.5	88.3	126.0	99.6	96.2	82.3
February	106.7	129.2	87.0	122.1	94.3	91.9	67.0
March	103.9	124.5	81.1	112.8	86.6	84.2	57.6
April	117.7	134.9	80.2	100.6	86.1	86.3	57.0
May	130.1	150.9	84.0	94.1	90.1	93.0	54.3
June	120.7	145.1	83.6	93.8	84.8	90.6	50.5
July	103.2	134.6	76.8	83.4	78.1	81.4	45.1
August	102.5	136.3	77.8	84.2	82.1	84.6	46.3
September	109.2	142.4	82.4	94.9	88.8	89.5	43.7
October	89.9	125.3	67.5	94.2	72.4	77.2	44.7
November	76.9	119.4	62.5	100.9	65.8	68.5	43.5
December	68.5	115.8	55.6	98.1	62.7	60.9	40.2
Average	103.2	132.3	77.5	104.5	82.9	84.2	50.6
2002 January	70.6	111.8	58.2	98.0	63.6	60.5	38.1
February	71.8	110.6	58.5	99.6	62.3	61.6	35.0
March	87.2	122.6	64.4	101.3	70.1	70.2	39.5
April	100.4	129.8	70.1	87.3	72.0	75.3	41.7
May	99.9	128.9	70.9	91.5	70.9	75.5	40.5
June	99.1	127.3	68.8	83.6	67.8	73.7	37.9
July	100.3	139.2	72.2	80.7	70.9	75.6	38.4
August	100.1	136.9	75.3	79.8	73.4	79.5	41.5
September	100.1	139.1	82.8	99.1	81.8	86.7	46.9
October	104.0	143.0	84.7	111.1	81.8	89.1	47.1
November	101.2	141.8	76.7	104.4	80.0	84.0	46.9
December	98.1	139.8	81.1	115.2	87.5	85.9	49.9
Average	94.7	128.8	72.1	99.0	73.7	76.2	41.9
2003 January	106.0	139.7	91.5	121.0	96.3	93.3	57.4
February	122.1	W	101.8	137.4	113.5	110.2	69.6
March	130.0	W	104.4	138.7	110.0	111.7	67.3
April	120.1	W	82.2	127.9	91.0	94.4	52.6
May	110.0	139.8	75.8	NA	80.9	85.7	53.9
June	109.3	145.1	76.8	90.8	81.5	86.5	56.0
July	110.6	151.9	81.8	89.8	82.8	88.5	54.3
August	123.1	162.2	87.4	100.7	86.9	94.2	55.3
September	126.5	158.9	81.9	^R NA	81.4	88.9	^R 53.5
October	115.1	150.8	84.7	117.2	88.2	92.0	55.6

^a See Note 5 at end of section.

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

Web Page: <http://www.eia.doe.gov/emeu/mer/prices.html>.

Source: EIA, *Petroleum Marketing Monthly*, January 2004, 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 Average	78.7	77.9	85.3	84.4	87.4	86.4	95.5	88.8	82.6
1996 Average	97.2	94.0	96.9	97.6	98.6	98.6	106.3	102.4	95.3
1997 Average	94.2	94.2	98.7	96.0	98.9	96.3	106.5	103.3	95.0
1998 Average	78.8	78.8	87.3	81.8	86.8	83.1	94.8	89.2	81.4
1999 Average	81.3	77.0	85.4	83.6	85.8	85.2	96.9	91.3	81.5
2000 Average	129.7	128.1	125.5	127.3	125.9	129.1	144.2	140.4	122.4
2001									
January	132.5	134.9	132.8	132.7	133.9	136.8	147.7	146.3	133.1
February	129.5	133.3	130.8	129.5	129.4	132.0	143.5	140.6	127.9
March	125.6	130.1	129.1	125.6	125.5	129.0	139.9	133.8	121.5
April	122.9	126.7	128.0	124.3	124.1	127.2	139.6	131.8	116.8
May	121.8	124.5	124.8	122.7	122.4	125.1	137.3	130.8	111.1
June	121.6	125.5	125.0	119.8	121.6	119.1	133.2	128.7	105.7
July	117.8	121.2	122.7	113.8	117.2	113.1	126.9	123.2	101.0
August	115.2	118.9	121.9	113.5	118.0	110.8	127.2	118.3	103.6
September	118.7	118.4	123.0	115.9	119.7	116.2	129.1	120.0	104.9
October	114.6	117.6	121.1	113.4	117.4	113.4	125.9	118.0	102.6
November	110.2	114.8	118.9	109.9	113.9	109.2	123.3	114.2	101.2
December	108.7	114.2	117.3	106.9	111.3	107.4	119.8	112.2	99.7
Average	121.7	125.6	126.1	122.1	123.6	123.9	136.3	131.4	115.9
2002									
January	109.5	113.2	117.9	107.4	112.1	108.3	121.5	113.8	102.9
February	108.6	114.1	117.6	106.9	110.9	106.6	119.9	113.4	100.2
March	112.2	110.1	116.2	111.2	107.7	109.1	119.0	117.0	104.6
April	111.4	109.7	117.7	114.0	112.0	109.6	120.0	121.0	106.6
May	111.5	108.4	118.1	113.6	109.8	108.9	117.6	119.6	104.3
June	110.1	104.6	114.0	110.9	106.1	110.6	115.9	116.7	102.8
July	109.5	101.4	111.5	111.3	105.6	106.4	114.2	113.4	95.2
August	107.7	102.2	112.1	112.5	107.7	107.3	NA	114.7	96.1
September	111.2	106.0	114.3	113.7	110.6	110.7	116.6	120.7	101.4
October	116.7	111.4	117.6	116.2	110.5	112.0	120.1	123.6	106.6
November	115.4	113.4	117.9	118.5	114.4	115.5	125.1	127.5	111.3
December	119.4	118.1	120.5	125.0	120.8	121.5	130.1	135.4	117.5
Average	112.9	111.9	117.2	114.1	112.4	111.8	121.8	122.0	106.4
2003									
January	127.9	127.4	126.5	135.4	132.3	130.9	138.7	146.5	127.5
February	142.5	145.0	138.9	153.8	151.8	149.7	156.1	167.4	147.7
March	147.0	148.4	144.0	153.0	151.4	152.5	160.0	170.9	153.7
April	130.1	132.6	131.9	136.3	131.7	134.0	141.6	146.2	131.4
May	125.2	126.4	125.7	132.8	124.0	127.5	137.1	135.6	124.0
June	124.9	121.4	122.1	129.6	119.9	125.9	130.0	133.9	NA
July	121.3	118.6	120.3	126.5	117.3	120.6	128.2	128.5	105.6
August	120.6	119.1	121.0	127.4	NA	120.8	125.3	NA	108.7
September	^R 121.5	^R 119.5	^R 121.3	^R 126.0	120.6	^R 123.3	^R 129.5	^R 126.2	^R 110.8
October	122.8	120.4	126.0	127.4	123.6	127.8	132.9	132.4	116.4

R=Revised. 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.

Web Page: <http://www.eia.doe.gov/emeu/mer/prices.html>.

Source: EIA, *Petroleum Marketing Monthly*, January 2004, 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 Average	87.0	101.0	93.6	84.4	81.5	80.8	86.0	81.6	78.5	81.2	80.1
1996 Average	98.4	117.8	106.3	95.2	96.0	92.1	97.7	91.2	89.3	89.9	90.9
1997 Average	98.4	117.4	105.7	94.8	96.2	91.3	94.2	86.5	87.0	93.3	89.9
1998 Average	85.8	102.2	90.2	85.6	81.8	76.7	80.4	74.8	73.5	80.1	73.8
1999 Average	88.4	101.1	90.7	87.0	78.9	82.0	88.3	79.3	71.6	84.7	77.4
2000 Average	127.0	W	135.1	126.9	125.1	122.0	NA	120.7	109.5	117.1	115.6
2001 January	139.8	W	150.3	141.4	137.1	131.7	NA	127.0	122.7	128.1	124.9
February	137.6	W	146.5	133.4	127.3	126.9	NA	123.1	118.9	126.6	120.4
March	129.3	W	140.8	122.8	119.1	117.4	NA	114.1	115.7	120.1	114.7
April	123.2	W	137.2	117.4	117.1	117.5	NA	112.3	NA	119.3	118.0
May	113.3	W	128.7	112.8	113.7	120.5	NA	117.8	111.3	121.9	118.7
June	110.8	W	123.2	112.7	112.5	112.9	NA	109.8	105.6	117.1	114.0
July	102.0	W	116.9	106.6	104.5	104.7	NA	102.9	102.2	110.6	106.4
August	101.5	W	117.0	107.6	109.3	110.4	NA	111.7	111.8	117.6	115.4
September	106.2	W	120.0	110.4	112.0	119.1	136.4	118.0	118.3	122.1	116.3
October	NA	W	117.7	106.9	104.3	108.4	122.1	108.3	109.5	112.8	105.5
November	110.3	W	117.1	102.4	NA	100.8	112.0	98.2	98.2	106.1	99.9
December	108.8	W	114.3	97.8	95.5	95.0	108.3	93.4	91.7	96.5	91.0
Average	123.4	143.1	134.2	120.2	113.9	116.0	NA	113.3	112.1	118.0	112.2
2002 January	114.2	W	115.8	101.7	96.7	94.2	102.2	91.7	87.0	97.0	91.2
February	111.0	W	115.1	99.9	95.7	94.3	101.8	95.7	84.4	95.9	91.6
March	113.0	W	117.6	102.2	99.5	101.4	103.6	93.9	85.0	100.3	94.0
April	116.2	129.2	118.9	100.7	101.5	103.1	108.3	94.9	84.7	105.3	102.0
May	106.1	NA	114.2	97.2	102.3	100.6	106.4	W	83.7	106.4	102.6
June	100.5	111.5	111.5	97.1	101.6	96.9	107.0	W	NA	101.7	101.7
July	98.2	W	109.4	98.0	101.5	95.3	106.8	W	96.6	102.0	101.9
August	99.5	W	110.9	100.2	102.4	100.5	107.4	W	NA	103.3	105.2
September	111.2	W	116.4	103.1	107.1	107.1	113.1	W	101.2	112.3	111.1
October	114.8	129.2	120.1	108.7	111.1	114.5	120.9	W	105.6	118.0	116.6
November	119.8	W	124.7	111.1	113.7	115.8	122.2	114.0	111.9	120.2	114.9
December	129.1	W	131.3	120.2	121.1	119.5	124.7	121.0	111.0	121.5	117.0
Average	116.4	W	120.1	105.7	105.4	105.8	110.9	102.5	97.5	107.3	105.1
2003 January	138.4	W	141.4	130.5	131.7	129.4	130.7	130.3	125.0	127.1	122.0
February	161.7	W	159.9	146.4	155.5	144.8	148.5	146.7	134.9	137.0	136.5
March	167.5	W	166.8	142.5	155.9	141.2	148.9	142.4	130.1	140.5	136.7
April	142.3	NA	146.4	126.4	130.9	126.4	131.8	W	115.1	125.5	120.9
May	129.8	NA	136.7	117.4	116.5	115.8	121.0	W	108.1	117.5	114.5
June	125.8	127.6	129.4	119.1	113.7	113.3	114.5	W	105.5	115.3	115.6
July	119.1	124.3	124.4	117.5	109.9	111.5	114.1	W	NA	112.1	114.9
August	117.2	W	125.6	119.0	113.8	114.4	120.0	106.0	114.9	114.2	116.3
September	^R 121.7	W	^R 127.2	119.7	112.3	^R 114.4	120.0	W	^R 114.0	^R 117.3	^R 113.9
October	125.6	W	134.5	121.8	116.4	120.4	122.1	W	116.5	121.8	120.2

R=Revised. 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.

Web Page: <http://www.eia.doe.gov/emeu/mer/prices.html>.

Source: EIA, *Petroleum Marketing Monthly*, January 2004, 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 Average	83.9	96.2	89.4	83.4	86.7
1996 Average	93.3	108.0	98.9	90.9	98.9
1997 Average	95.3	113.9	103.1	97.3	98.4
1998 Average	78.4	97.8	86.1	85.2	85.2
1999 Average	76.2	106.5	93.8	96.6	87.6
2000 Average	117.0	144.5	136.8	133.7	131.1
2001 January	120.8	144.0	134.3	NA	138.6
February	114.0	145.4	134.4	147.5	134.3
March	109.4	141.9	129.7	NA	129.4
April	110.1	141.8	130.3	NA	127.3
May	114.0	144.6	133.8	145.6	124.9
June	111.9	141.3	130.0	140.6	120.3
July	100.3	122.7	115.4	131.8	113.6
August	101.2	119.0	116.8	124.6	114.3
September	107.7	127.9	120.6	NA	117.5
October	100.2	NA	111.0	131.1	114.2
November	90.2	118.1	103.6	125.7	111.0
December	75.8	110.2	95.0	119.9	108.0
Average	103.8	133.6	121.1	137.7	125.0
2002 January	74.7	108.9	93.7	114.0	109.7
February	74.5	108.2	94.4	114.5	108.4
March	82.2	117.0	104.3	110.4	110.0
April	92.6	124.1	108.0	111.8	111.6
May	90.0	124.9	107.5	104.6	109.3
June	89.0	122.4	103.9	106.0	105.7
July	88.0	117.7	NA	102.7	102.9
August	89.9	117.0	107.6	105.8	103.8
September	96.6	124.2	115.5	110.0	109.9
October	103.4	128.5	118.5	110.5	114.8
November	103.5	131.2	119.3	113.0	118.0
December	103.0	131.2	118.0	113.9	123.8
Average	91.9	120.4	106.0	108.7	112.9
2003 January	107.2	137.1	124.5	116.7	133.3
February	126.5	156.1	144.6	121.1	150.7
March	133.9	179.5	158.8	137.4	153.9
April	121.0	154.8	131.2	131.1	134.6
May	111.3	143.0	121.6	123.5	126.7
June	NA	143.3	126.6	128.2	122.0
July	118.6	139.1	132.4	124.5	116.4
August	123.3	144.2	133.6	127.2	117.7
September	^R 111.9	^R 137.0	^R 119.2	NA	^R 118.9
October	NA	135.1	116.3	NA	124.1

R=Revised. 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.

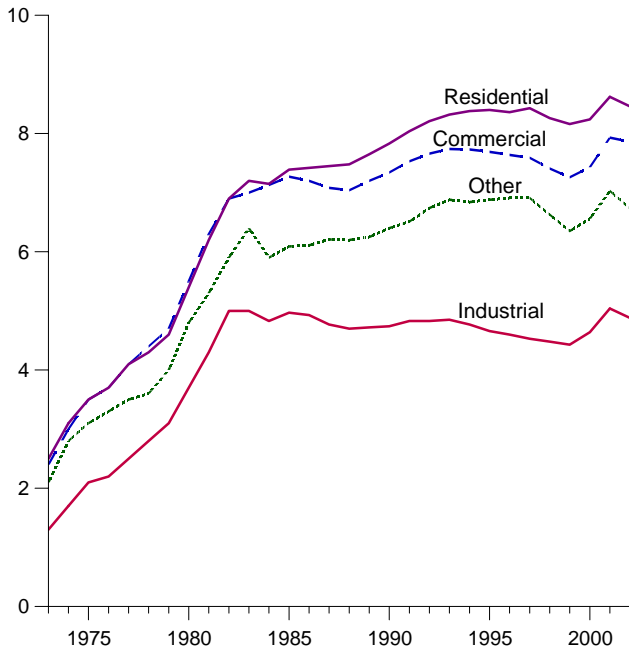
See Note 6 at end of section.

Web Page: <http://www.eia.doe.gov/emeu/mer/prices.html>.

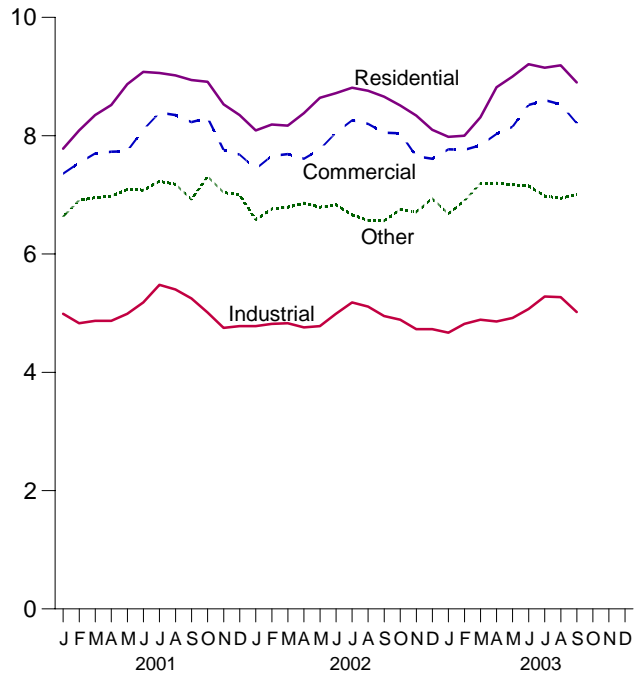
Source: EIA, *Petroleum Marketing Monthly*, January 2004, Table 18.

Figure 9.2 Average Retail Prices of Electricity
(Cents per Kilowatthour)

By Sector, 1973-2002



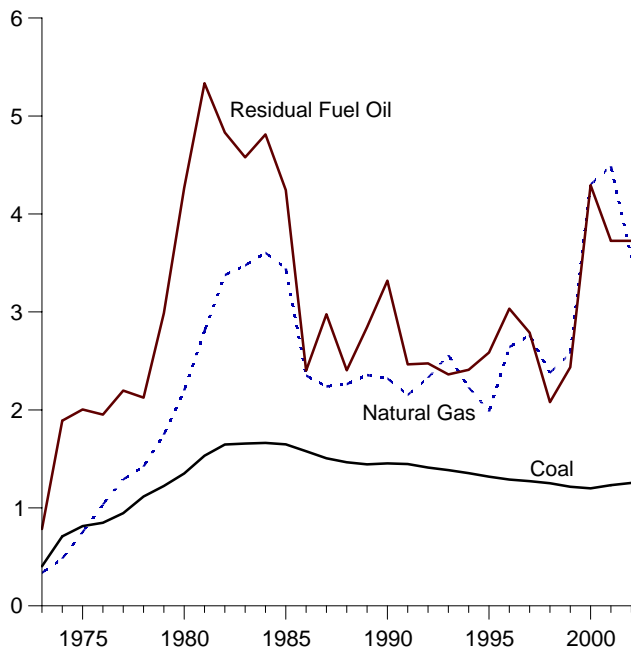
By Sector, Monthly



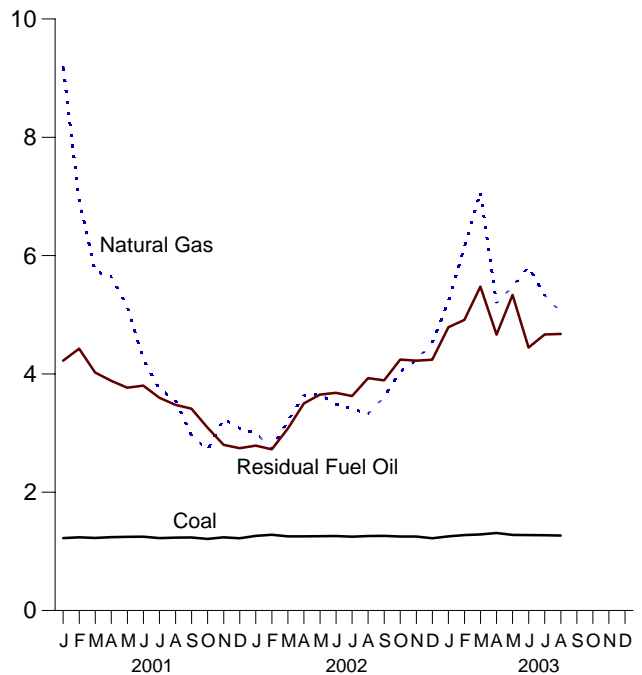
Note: Excludes taxes.
Web Page: <http://www.eia.doe.gov/emeu/mer/prices.html>.
Source: Table 9.9.

Figure 9.3 Cost of Fossil-Fuel Receipts at Electric Generating Plants
(Dollars per Million Btu)

Costs, 1973-2002



Costs, Monthly



Note: Because vertical scales differ, graphs should not be compared.
Web Page: <http://www.eia.doe.gov/emeu/mer/prices.html>.
Source: Table 9.10.

Table 9.9 Average Retail Prices of Electricity
(Cents per Kilowatthour, Excluding Taxes)

	Residential	Commercial	Industrial	Other ^a	Total
1973 Average	2.5	2.4	1.3	2.1	2.0
1974 Average	3.1	3.0	1.7	2.8	2.5
1975 Average	3.5	3.5	2.1	3.1	2.9
1976 Average	3.7	3.7	2.2	3.3	3.1
1977 Average	4.1	4.1	2.5	3.5	3.4
1978 Average	4.3	4.4	2.8	3.6	3.7
1979 Average	4.6	4.7	3.1	4.0	4.0
1980 Average	5.4	5.5	3.7	4.8	4.7
1981 Average	6.2	6.3	4.3	5.3	5.5
1982 Average	6.9	6.9	5.0	5.9	6.1
1983 Average	7.2	7.0	5.0	6.4	6.3
1984 Average	7.15	7.13	4.83	5.90	6.25
1985 Average	7.39	7.27	4.97	6.09	6.44
1986 Average	7.42	7.20	4.93	6.11	6.44
1987 Average	7.45	7.08	4.77	6.21	6.37
1988 Average	7.48	7.04	4.70	6.20	6.35
1989 Average	7.65	7.20	4.72	6.25	6.45
1990 Average	7.83	7.34	4.74	6.40	6.57
1991 Average	8.04	7.53	4.83	6.51	6.75
1992 Average	8.21	7.66	4.83	6.74	6.82
1993 Average	8.32	7.74	4.85	6.88	6.93
1994 Average	8.38	7.73	4.77	6.84	6.91
1995 Average	8.40	7.69	4.66	6.88	6.89
1996 Average	8.36	7.64	4.60	6.91	6.86
1997 Average	8.43	7.59	4.53	6.91	6.85
1998 Average	8.26	7.41	4.48	6.63	6.74
1999 Average	8.16	7.26	4.43	6.35	6.64
2000 Average	8.24	7.43	4.64	6.56	6.81
2001 January	7.78	7.36	4.99	6.63	6.90
February	8.09	7.54	4.83	6.91	6.93
March	8.35	7.70	4.87	6.95	7.05
April	8.52	7.73	4.87	6.98	7.06
May	8.87	7.74	4.99	7.09	7.20
June	9.08	8.10	5.18	7.08	7.56
July	9.06	8.39	5.48	7.23	7.86
August	9.02	8.35	5.40	7.18	7.82
September	8.94	8.23	5.25	6.92	7.62
October	8.91	8.30	5.01	7.31	7.46
November	8.53	7.76	4.75	7.04	7.05
December	8.35	7.68	4.78	7.00	7.08
Average	8.62	7.93	5.04	7.03	7.32
2002 January	R 8.09	R 7.44	R 4.78	R 6.58	R 6.98
February	R 8.19	R 7.66	R 4.82	R 6.76	R 7.01
March	R 8.17	R 7.69	R 4.83	R 6.79	R 7.00
April	R 8.38	R 7.61	R 4.76	R 6.86	R 6.97
May	8.64	R 7.77	R 4.78	R 6.79	R 7.11
June	R 8.72	R 8.05	R 4.99	R 6.83	R 7.41
July	R 8.81	R 8.26	R 5.18	R 6.66	R 7.65
August	R 8.76	R 8.20	R 5.11	R 6.57	R 7.58
September	R 8.66	R 8.05	R 4.95	R 6.56	R 7.38
October	R 8.51	R 8.04	R 4.89	R 6.75	R 7.22
November	R 8.34	R 7.65	R 4.73	R 6.71	R 6.97
December	R 8.10	R 7.61	R 4.73	R 6.94	R 6.99
Average	R 8.46	R 7.86	R 4.88	R 6.73	R 7.21
2003 January	7.98	7.77	4.67	6.68	7.02
February	8.00	7.76	4.82	6.90	7.02
March	8.31	7.84	4.89	7.19	7.14
April	8.82	8.03	4.86	7.20	7.27
May	9.00	8.15	4.92	7.17	7.40
June	9.21	8.52	5.07	7.15	7.71
July	9.15	8.60	5.28	6.98	7.91
August	9.19	8.53	5.27	6.94	7.89
September	8.90	8.21	5.02	7.01	7.55
9-Month Average	8.73	8.18	4.99	7.02	7.46
2002 9-Month Average	8.51	7.88	4.92	6.70	7.26
2001 9-Month Average	8.63	7.93	5.10	7.00	7.35

^a Public street and highway lighting, other sales to public authorities, sales to railroads and railways, and interdepartmental sales.
R=Revised.

Notes: • Prices are calculated by dividing revenue by sales. Revenue may not correspond to sales for a particular month because of energy service provider 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.
Web Page: <http://www.eia.doe.gov/emeu/mer/prices.html>.

Sources: • **1973-September 1977:** Federal Power Commission, Form FPC-5, "Monthly Statement of Electric Operating Revenues and Income."
• **October 1977-February 1980:** Federal Energy Regulatory Commission (FERC), Form FPC-5, "Monthly Statement of Electric Operating Revenues and Income."
• **March 1980-1982:** FERC, Form FERC-5, "Electric Utility Company Monthly Statement."
• **1983:** Energy Information Administration (EIA), Form EIA-826, "Electric Utility Company Monthly Statement."
• **1984-1989:** EIA, Form EIA-861, "Annual Electric Utility Report."
• **1990 forward:** EIA, *Electric Power Monthly*, December 2003, Table 5.3.

Table 9.10 Cost of Fossil-Fuel Receipts at Electric Generating Plants
(Cents per Million Btu)

	Coal	Petroleum		Natural Gas ^c	All Fossil Fuels ^d
		Residual Fuel Oil ^a	Total ^b		
1973 Average	40.5	78.5	80.0	33.8	47.6
1974 Average	70.9	189.0	191.0	48.2	91.4
1975 Average	81.4	200.5	202.3	75.2	104.4
1976 Average	84.8	195.2	199.0	103.4	111.9
1977 Average	94.7	219.8	224.9	129.1	129.7
1978 Average	111.6	212.5	219.1	142.2	141.1
1979 Average	122.4	298.8	307.2	174.9	163.9
1980 Average	135.1	426.7	435.1	219.9	192.8
1981 Average	153.2	533.4	542.5	280.5	225.6
1982 Average	164.7	483.2	492.2	337.6	224.9
1983 Average	165.6	457.8	462.8	347.4	220.6
1984 Average	166.4	481.2	486.3	360.3	219.1
1985 Average	164.8	424.4	431.7	344.4	209.4
1986 Average	157.9	240.1	243.7	235.1	175.0
1987 Average	150.6	297.6	301.1	224.0	170.6
1988 Average	146.6	240.5	243.9	226.3	164.3
1989 Average	144.5	284.6	289.3	235.5	167.5
1990 Average	145.5	331.9	335.3	232.1	168.8
1991 Average	144.7	246.5	252.7	215.3	160.2
1992 Average	141.2	247.5	251.4	232.8	158.9
1993 Average	138.5	236.2	237.3	256.0	159.4
1994 Average	135.5	240.9	242.3	223.0	152.5
1995 Average	131.8	258.6	256.6	198.4	145.2
1996 Average	128.9	303.4	302.6	264.1	151.8
1997 Average	127.3	278.8	273.0	276.0	152.0
1998 Average	125.2	207.9	202.1	238.1	143.5
1999 Average	121.6	243.6	235.9	257.4	143.8
2000 Average	120.0	429.4	417.9	430.2	173.5
2001 January	122.3	422.3	457.7	920.7	214.1
February	123.9	442.6	441.4	694.7	189.1
March	122.6	402.4	401.1	573.8	178.3
April	123.9	388.4	388.6	563.7	191.9
May	124.5	376.7	378.6	514.2	186.3
June	124.8	380.1	369.7	425.1	178.3
July	122.5	359.7	349.2	374.3	176.4
August	123.3	347.7	331.2	355.8	169.6
September	123.4	341.3	316.0	295.5	156.4
October	121.0	309.0	287.5	271.5	142.2
November	123.7	280.0	268.8	324.1	145.1
December	122.0	274.5	256.1	307.6	141.7
Average	123.2	372.6	369.3	448.7	173.0
2002 January ^e	126.2	278.7	R 254.7	R 300.1	R 150.5
February	R 128.0	R 272.6	R 242.1	R 273.6	R 148.8
March	R 125.4	R 307.5	R 267.7	R 320.4	R 151.1
April	R 125.3	R 350.2	R 316.4	R 363.8	R 148.1
May	R 125.7	365.0	R 329.9	R 365.1	R 152.0
June	R 126.0	368.0	R 334.3	R 348.6	R 151.2
July	R 124.7	R 362.7	R 329.0	R 341.0	R 150.7
August	R 126.0	R 393.0	R 346.4	R 333.0	R 152.7
September	R 126.3	R 389.0	R 338.2	R 360.6	R 146.9
October	R 125.2	R 424.3	R 374.4	R 404.2	R 152.7
November	125.1	R 422.4	R 395.6	R 423.2	R 156.8
December	122.0	R 424.1	R 388.4	R 453.0	R 155.5
Average	R 125.5	R 372.6	R 334.3	R 356.0	R 151.5
2003 January	125.3	479.0	437.4	522.8	209.0
February	127.6	491.4	489.5	614.2	237.6
March	128.6	547.6	546.2	706.9	261.0
April	131.1	466.4	434.4	519.8	218.2
May	127.9	533.5	473.7	547.7	226.8
June	127.6	444.5	426.8	580.8	229.9
July	127.3	466.7	427.8	532.5	242.3
August	126.8	467.6	405.9	504.5	233.3
8-Month Average	127.7	491.6	460.9	560.1	232.5
2002 8-Month Average	125.9	346.6	310.6	333.1	150.7
2001 8-Month Average	123.5	390.7	393.5	508.1	185.3

^a For 1973-2001, electric utility data are for heavy oil (fuel oil nos. 5 and 6, and small amounts of fuel oil no. 4).

^b Distillate fuel oil, residual fuel oil, petroleum coke, jet fuel, kerosene, other petroleum, and waste oil. For 1973-1982, data do not include refined motor oil, bunker oil, and liquefied petroleum gas. For 1973-1989, data do not include petroleum coke.

^c Natural gas, plus a small amount of supplemental gaseous fuels that cannot be identified separately. Data for all years except 2002 also include a small amount of blast furnace gas and other gases derived from fossil fuels.

^d Data for all years except 2002 include a small amount of blast furnace gas

and other gases derived from fossil fuels.

^e Through 2001, data are for electric utilities only. Beginning in 2002, data also include independent power producers, and electric generating plants in the commercial and industrial sectors. See Note 8 at end of section for plant coverage. R=Revised.

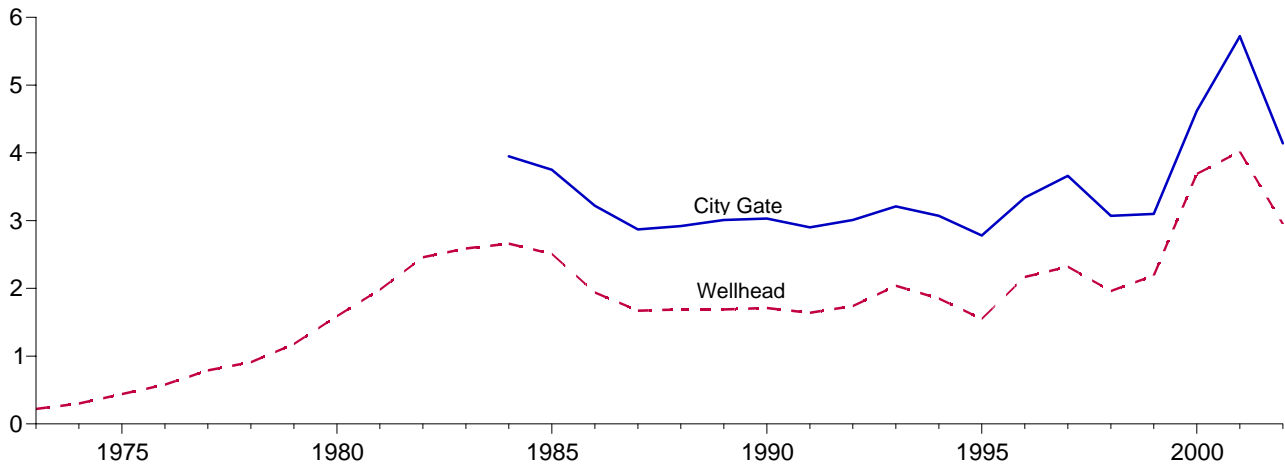
Notes: • Receipts are purchases of fuel. • Yearly costs are averages of monthly values, weighted by quantities in Btu. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: <http://www.eia.doe.gov/emeu/mer/prices.html>.

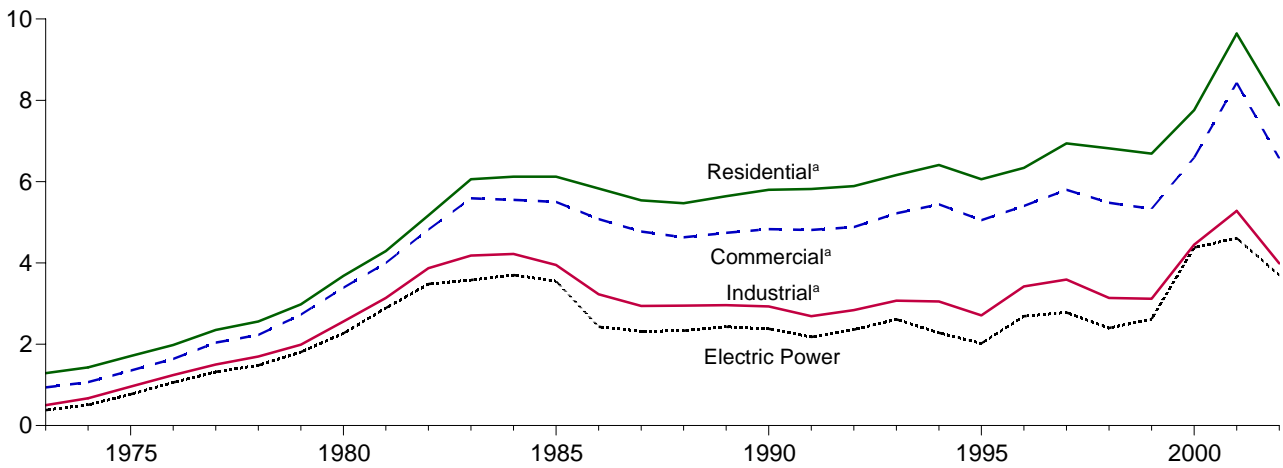
Sources: See end of section.

Figure 9.4 Natural Gas Prices
(Dollars per Thousand Cubic Feet)

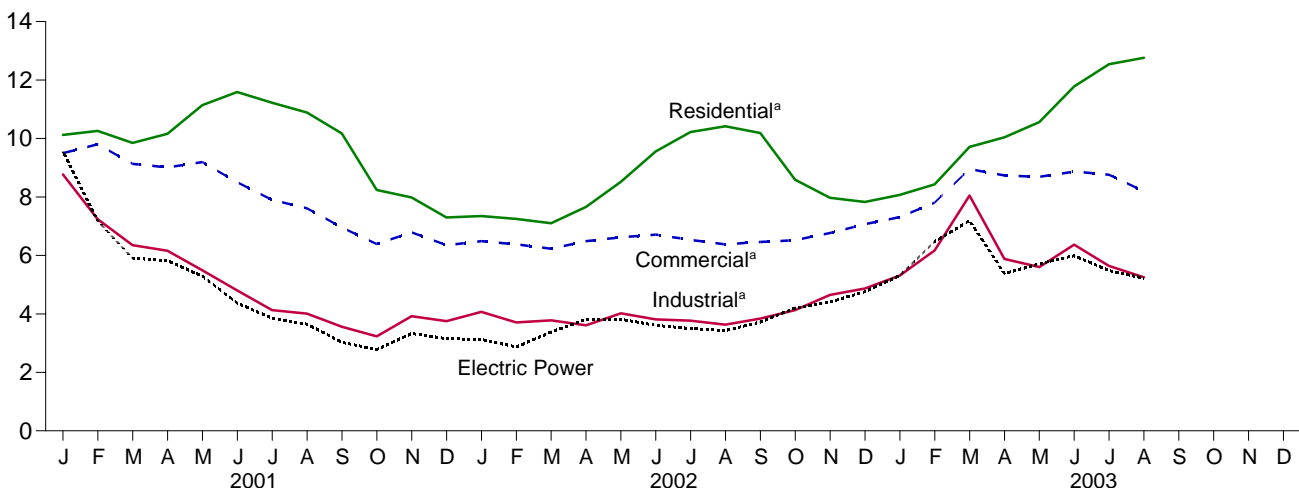
Selected Prices, 1973-2002



Consuming Sectors, 1973-2002



Consuming Sectors, Monthly



^aIncludes taxes.

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

Web Page: <http://www.eia.doe.gov/emeu/mer/prices.html>.

Source: Table 9.11.

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

	Wellhead Price	City Gate Price	Consuming Sectors ^a							
			Residential		Commercial ^b		Industrial ^c		Electric Power ^d	
			Price ^e	Percentage of Sector ^f	Price ^e	Percentage of Sector ^f	Price ^e	Percentage of Sector ^f	Price	Percentage of Sector ^f
1973 Average	0.22	NA	1.29	NA	0.94	NA	0.50	NA	0.38	92.1
1974 Average	.30	NA	1.43	NA	1.07	NA	.67	NA	.51	92.7
1975 Average	.44	NA	1.71	NA	1.35	NA	.96	NA	.77	96.1
1976 Average	.58	NA	1.98	NA	1.64	NA	1.24	NA	1.06	96.2
1977 Average	.79	NA	2.35	NA	2.04	NA	1.50	NA	1.32	97.1
1978 Average	.91	NA	2.56	NA	2.23	NA	1.70	NA	1.48	98.0
1979 Average	1.18	NA	2.98	NA	2.73	NA	1.99	NA	1.81	96.1
1980 Average	1.59	NA	3.68	NA	3.39	NA	2.56	NA	2.27	96.9
1981 Average	1.98	NA	4.29	NA	4.00	NA	3.14	NA	2.89	97.6
1982 Average	2.46	NA	5.17	NA	4.82	NA	3.87	85.1	3.48	92.6
1983 Average	2.59	NA	6.06	NA	5.59	NA	4.18	80.7	3.58	93.9
1984 Average	2.66	3.95	6.12	NA	5.55	NA	4.22	74.7	3.70	94.4
1985 Average	2.51	3.75	6.12	NA	5.50	NA	3.95	68.8	3.55	94.0
1986 Average	1.94	3.22	5.83	NA	5.08	NA	3.23	59.8	2.43	91.7
1987 Average	1.67	2.87	5.54	NA	4.77	93.1	2.94	47.4	2.32	91.6
1988 Average	1.69	2.92	5.47	NA	4.63	90.7	2.95	42.6	2.33	89.6
1989 Average	1.69	3.01	5.64	99.9	4.74	89.1	2.96	36.9	2.43	88.6
1990 Average	1.71	3.03	5.80	99.3	4.83	86.6	2.93	35.2	2.38	89.2
1991 Average	1.64	2.90	5.82	99.2	4.81	85.1	2.69	32.7	2.18	93.2
1992 Average	1.74	3.01	5.89	99.1	4.88	83.2	2.84	30.3	2.36	93.2
1993 Average	2.04	3.21	6.16	99.1	5.22	83.9	3.07	29.7	2.61	93.4
1994 Average	1.85	3.07	6.41	99.1	5.44	79.3	3.05	25.5	2.28	93.5
1995 Average	1.55	2.78	6.06	99.1	5.05	76.7	2.71	24.5	2.02	92.0
1996 Average	2.17	3.34	6.34	99.1	5.40	77.6	3.42	19.4	2.69	92.2
1997 Average	2.32	3.66	6.94	98.8	5.80	70.8	3.59	18.1	2.78	91.0
1998 Average	1.96	3.07	6.82	97.7	5.48	67.0	3.14	16.1	2.40	82.5
1999 Average	2.19	3.10	6.69	95.2	5.33	66.1	3.12	18.8	2.62	75.3
2000 Average	3.69	4.62	7.76	92.6	6.59	62.9	4.45	19.8	4.38	64.3
2001 January	6.82	8.91	10.12	NA	9.50	72.7	8.77	22.1	9.55	41.6
February	5.08	7.08	10.26	NA	9.80	71.6	7.24	21.7	7.18	38.4
March	4.37	6.10	9.85	NA	9.13	69.0	6.35	20.4	5.91	40.9
April	4.52	6.30	10.16	NA	9.01	66.3	6.16	19.5	5.82	48.2
May	4.36	5.77	11.14	NA	9.19	60.7	5.49	17.9	5.29	48.7
June	3.80	5.38	11.59	NA	8.50	59.3	4.80	17.6	4.37	44.5
July	3.36	4.03	11.22	NA	7.90	54.2	4.13	18.5	3.85	45.8
August	3.34	4.32	10.89	NA	7.61	53.6	4.01	18.0	3.65	41.4
September	2.94	3.66	10.17	NA	6.96	53.8	3.56	18.2	3.03	42.1
October	2.81	3.37	8.24	NA	6.39	59.9	3.23	18.7	2.78	36.9
November	3.42	4.02	7.98	NA	6.79	64.8	3.92	18.7	3.33	33.4
December	3.44	3.90	7.30	NA	6.35	67.9	3.75	19.4	3.15	35.4
Average	4.02	5.72	9.64	92.3	8.43	65.8	5.28	19.3	4.61	41.9
2002 January	E 2.35	4.04	7.35	NA	6.49	78.9	4.07	17.5	d3.13	d80.8
February	E 2.14	3.77	7.25	NA	6.38	79.9	3.71	18.0	2.87	87.4
March	E 2.52	3.85	7.10	NA	6.23	80.7	3.78	17.8	3.38	86.1
April	E 3.02	4.17	7.66	NA	6.49	76.3	3.61	23.3	3.81	84.4
May	E 3.01	4.07	8.52	NA	6.62	72.3	4.02	21.1	3.82	81.8
June	E 2.94	4.14	9.56	NA	6.71	72.5	3.81	23.0	3.61	78.7
July	E 2.89	3.92	10.22	NA	6.53	70.9	3.77	21.0	3.50	74.5
August	E 2.77	3.63	10.42	NA	6.38	70.1	3.63	19.6	3.43	78.6
September	E 2.98	3.96	10.19	NA	6.46	68.8	3.84	20.1	3.72	79.1
October	E 3.35	4.29	8.59	NA	6.52	73.0	4.13	19.4	4.20	81.0
November	E 3.59	4.62	7.97	NA	6.77	78.2	4.65	19.6	4.41	84.9
December	E 3.84	4.69	7.83	NA	7.07	79.6	4.87	20.8	4.76	88.2
Average	E 2.95	4.14	7.88	NA	6.57	76.8	3.99	20.1	3.70	81.1
2003 January	E 4.47	5.31	8.07	NA	7.31	82.1	5.31	22.4	5.31	83.8
February	E 5.45	5.87	8.43	NA	7.81	79.8	6.17	21.7	6.47	83.5
March	E 6.69	7.58	9.71	NA	8.95	80.2	8.05	21.2	7.19	86.1
April	E 4.71	5.61	10.04	NA	8.74	76.8	5.88	21.1	5.38	89.8
May	E 4.97	5.66	10.56	NA	8.69	73.6	5.60	20.4	5.71	88.5
June	E 5.35	6.40	11.78	NA	8.87	72.8	6.37	19.9	5.99	83.0
July	E 4.91	5.81	12.54	NA	8.76	70.7	5.64	25.4	5.48	79.1
August	E 4.72	5.42	12.76	NA	8.19	70.8	5.25	23.3	5.22	78.1
8-Month Average	E 5.16	5.96	9.35	NA	8.21	78.0	6.01	22.0	NA	NA
2002 8-Month Average	E 2.71	3.94	7.73	NA	6.44	76.9	3.80	20.1	NA	NA
2001 8-Month Average	4.46	6.61	10.29	NA	9.18	66.9	6.09	19.6	NA	NA

^a See Note 9 at end of section.

^b Commercial sector, including commercial combined-heat-and-power (CHP) and commercial electricity-only plants. See note at end of Section 7.

^c Industrial sector, including industrial combined-heat-and-power (CHP) and industrial electricity-only plants. See note at end of Section 7.

^d The electric power sector comprises electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public. Through 2001, data are for electric utilities only; beginning in 2002, data also include independent power producers. See Note 8 at end of section for plant coverage.

^e Includes taxes.

^f The percentage of the sector's consumption in Table 4.4 for which price data are available.

NA=Not available. E=Estimate.

Notes: • Prices are for natural gas, including a small amount of supplemental gaseous fuels. • Prices 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.

Web Page: <http://www.eia.doe.gov/emeu/mer/prices.html>.

Sources: See end of section.

Energy Prices

Note 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."

Note 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.

Note 3. The landed cost of imported crude oil from selected countries does not represent the total cost of all imported crude. Prior to April 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 April 1975, however, coverage was expanded to include U.S. company-owned refineries in the Caribbean. Landed costs do not include supplemental fees.

Note 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.

Note 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.

Note 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 include 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.

Note 7. Preliminary monthly data are based on submissions from over 250 publicly and privately owned electric utilities reporting on Form EIA-826, “Monthly Electric Utility Sales and Revenue Report With State Distributions.” These utilities are statistically chosen as a cutoff sample from more than 3,000 electric utilities that report annually on Form EIA-861, “Annual Electric Utility Report.” Preliminary annual values are the sum of the monthly revenues divided by the sum of the monthly sales. When final Form EIA-861 annual data become available each year, their ratios to the preliminary Form EIA-826 values are used to derive adjusted final monthly values. Prior to January 1986, only privately owned electric utilities were included in the monthly survey and the sample was chosen using stratification techniques through December 1992.

Note 8. Data for 1973–1982 cover all regulated 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 regulated electric generating plants at which the generator nameplate capacity of all steam-electric units combined totaled 50 megawatts or greater. Data for 1991–2001 cover all regulated electric generating plants at which the generator nameplate capacity of all steam-electric units and combined-cycle units together totaled 50 megawatts or greater. Data for 2002 forward cover the aforementioned regulated generating plants plus unregulated generating plants (independent power producers, as well as combined-heat-and-power generating plants and electricity-only plants in the commercial and industrial sector) whose total facility fossil-fueled nameplate generating capacity is 50 or more megawatts, regardless of unit type.

Note 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 power 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.

Table 9.1 Sources

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*, January 2004, Table 1.

F.O.B. and Landed Cost of Imports

December 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*, January 2004, 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*, January 2004, Table 1.

Table 9.2 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*, January 2004, Table 24.

Table 9.10 Sources

1973–July 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."

1980–1989: EIA, *Electric Power Monthly*, April issues.

1990–2000: EIA, *Electric Power Monthly*, March 2003, Table 26.

2001 forward: EIA, *Electric Power Monthly*, January 2004, Table 4.1; Federal Energy Regulatory Commission, Form FERC-423, "Monthly Report on Cost and Quality of Fuels for Electric Utility Plants"; and EIA, Form EIA-423, "Monthly Cost and Quality of Fuels for Electric Plants Report."

Table 9.11 Sources

Wellhead Price:

1973–1996: Energy Information Administration (EIA), *Natural Gas Annual 2000*, Table 96.

1997 forward: EIA, *Natural Gas Monthly*, November 2003, Table 4.

City Gate Price:

1984–1987: EIA, *Natural Gas Monthly*, March 1990, Table 4; 1988–1992: EIA, *Natural Gas Monthly*, March 1995, Table 4;

1993–1996: EIA, *Natural Gas Monthly*, December 1999, Table 4.

1997 forward: EIA, *Natural Gas Monthly*, November 2003, Table 4.

Residential, Commercial, and Industrial Sector Prices:

1973–1996: EIA, *Natural Gas Annual 2001*, Table 96.

1997 forward: EIA, *Natural Gas Monthly*, November 2003, Table 4.

Percentage of Residential, Commercial, and Industrial Sectors, 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.

Percentage of Commercial, and Industrial Sectors, 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–December 1997	Table 24
January 1998–Present	Table 25

Electric Power Sector Price:

1973–1996: EIA, *Natural Gas Annual 2001*, Table 96.
1997–2001: EIA, *Natural Gas Monthly*, November 2003, Table 4.

2002 and 2003: Federal Energy Regulatory Commission, Form FERC-423, "Monthly Report on Cost and Quality of Fuels for Electric Utility Plants," and EIA, Form EIA-423 "Monthly Cost and Quality of Fuels for Electric Plants Report."

Percentage of Electric Power Sector:

1973–2001: Calculated by EIA as the quantity of natural gas receipts reported on FERC Form-423, "Monthly Report on Cost and Quantity of Fuels for Electric Utility Plants" (and predecessor forms) divided by the quantity of natural gas consumed in the electric power sector, as shown on *Monthly Energy Review* Table 7.3b. Natural gas receipts, 1973–1975: Federal Power Commission, "Annual Summary of Cost and Quality of Steam-Electric Plant Fuels," 1973 edition (page ii), 1974 edition (page ii), and 1975 edition (Table 3); 1976–1981: EIA, *Electric Power Annual*, November 1982, Table 68; 1982–1985: EIA, *Electric Power Annual 1986*, September 1987, Table 16; 1986–1995: EIA, *Electric Power Monthly*, December 1996, Table 26; 1996–2000: EIA, *Electric Power Monthly*, March 2002, Table 26; and 2001: EIA, *Electric Power Monthly*, December 2003, Table 4.1.

2002 and 2003: Calculated by EIA as the quantity of natural gas receipts reported on FERC Form-423, "Monthly Report on Cost and Quantity of Fuels for Electric Utility Plants" (and published in EIA, *Electric Power Monthly*, December 2003, Table 4.1), and Form EIA-423, "Monthly Cost and Quality of Fuels for Electric Plants Report," divided by the quantity of natural gas consumed in the electric power sector, as shown on *Monthly Energy Review* Table 7.3b.

Section 10. Renewable Energy

Sources. The Nation consumed 6.0 quadrillion Btu of renewable energy in 2002, accounting for 6 percent¹ of total energy consumption during the year. At 2.7 quadrillion Btu, conventional hydroelectric power was the largest component of the renewable energy total, measuring 45 percent of the total. Wood was the next largest component at 2.1 quadrillion Btu and 35 percent of the total. Waste, the third largest component of the renewable energy total, contributed 0.6 quadrillion Btu in 2002, a 10-percent share of the total.

Electric Power Sector. In 2002, the electric power sector consumed 3.6 quadrillion Btu of renewable energy resources, 1.1 quadrillion Btu more than all of the end-use sectors combined and a share of 59 percent of the total. Conventional hydroelectric power recorded 2.6 quadrillion Btu in 2002, for 74 percent of the electric power sector total. Waste, at 0.4 quadrillion Btu, was the second largest

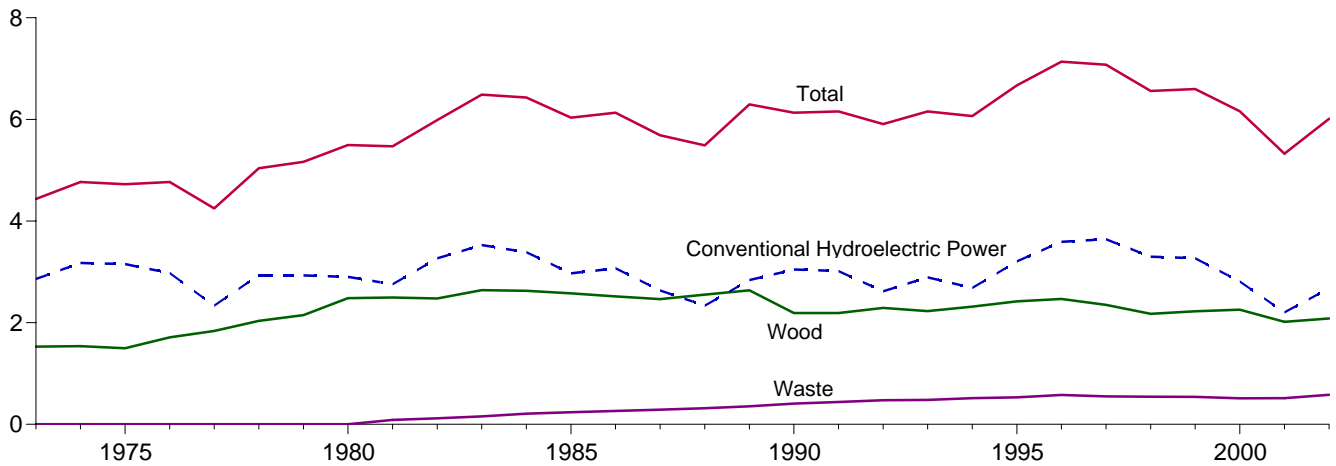
source consumed for electricity generation, followed by geothermal and wood.

End-Use Sectors. Of the end-use sectors, the industrial sector was the largest consumer of renewable energy in 2002. Industrial facilities used 1.8 quadrillion Btu of renewable energy in 2002, 88 percent in the form of wood. The residential sector was the next largest end-use sector in the use of renewable energy, consuming 0.4 quadrillion Btu--84 percent in the form of wood, 14 percent solar, and 2 geothermal. The transportation sector consumed renewable energy in the form of alcohol fuels used in the blending of motor gasoline; in 2002, alcohol fuel use was 0.2 quadrillion Btu. The commercial sector used 0.1 quadrillion Btu in 2002, 45 percent of it as waste and 45 percent as wood.

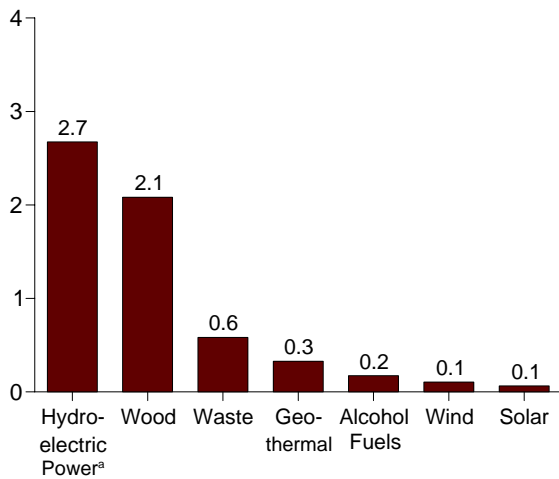
¹A small amount of alcohol fuel (ethanol blended into motor gasoline) is both fossil fuel (as petroleum) and renewable energy and is counted in both those subtotals but counted only once in total energy consumption.

Figure 10.1 Renewable Energy Consumption
(Quadrillion Btu)

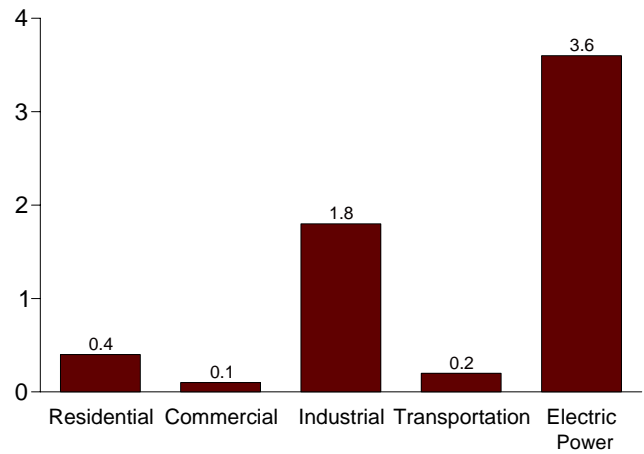
Total and Major Sources, 1973-2002



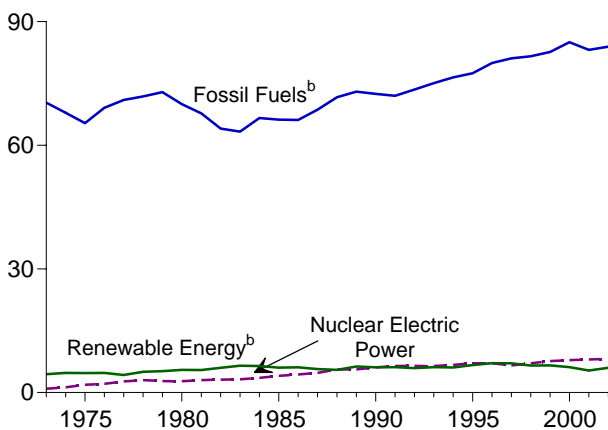
By Source, 2002



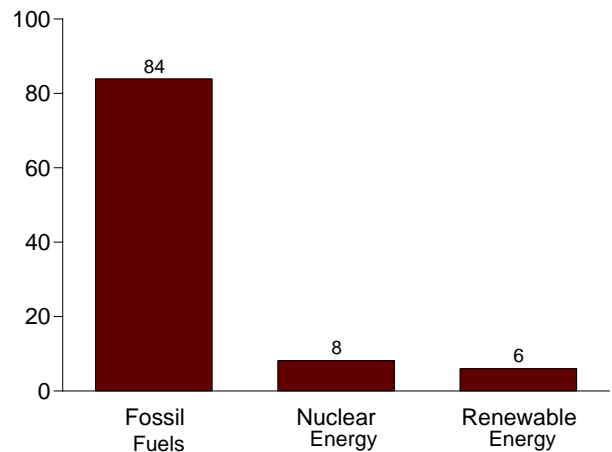
By Sector, 2002



Compared With Other Resources, 1973-2002



Compared With Other Resources, 2002



^aConventional hydroelectric power.

^bA small amount of alcohol (ethanol blended into motor gasoline) is both fossil fuel (as petroleum) and renewable energy and is counted in both

those subtotals but counted only once in total energy consumption.

Sources: Tables 1.3 and 10.1-10.2c

Web Page: <http://www.eia.doe.gov/emeu/mer/renew.html>.

Table 10.1 Renewable Energy Consumption by Source
(Trillion Btu)

	Conventional Hydroelectric Power ^a	Wood ^b	Waste ^c	Alcohol Fuels ^d	Geothermal ^e	Solar ^f	Wind ^g	Total
1973 Total	2,861	1,527	2	NA	43	NA	NA	4,433
1974 Total	3,177	1,538	2	NA	53	NA	NA	4,769
1975 Total	3,155	1,497	2	NA	70	NA	NA	4,723
1976 Total	2,976	1,711	2	NA	78	NA	NA	4,768
1977 Total	2,333	1,837	2	NA	77	NA	NA	4,249
1978 Total	2,937	2,036	1	NA	64	NA	NA	5,039
1979 Total	2,931	2,150	2	NA	84	NA	NA	5,166
1980 Total	2,900	2,483	2	NA	110	NA	NA	5,494
1981 Total	2,758	2,495	88	7	123	NA	NA	5,471
1982 Total	3,266	2,477	119	19	105	NA	NA	5,985
1983 Total	3,527	2,639	157	35	129	NA	(s)	6,488
1984 Total	3,386	2,629	208	43	165	(s)	(s)	6,431
1985 Total	2,970	2,576	236	52	198	(s)	(s)	6,033
1986 Total	3,071	2,518	263	60	219	(s)	(s)	6,132
1987 Total	2,635	2,465	289	69	229	(s)	(s)	5,687
1988 Total	2,334	2,552	315	70	217	(s)	(s)	5,489
1989 Total	2,837	2,637	354	71	317	55	22	6,294
1990 Total	3,046	2,191	408	63	336	60	29	6,133
1991 Total	3,016	2,190	440	73	346	63	31	6,158
1992 Total	2,617	2,290	473	83	349	64	30	5,907
1993 Total	2,892	2,228	479	97	364	66	31	6,157
1994 Total	2,683	2,315	515	109	338	69	36	6,065
1995 Total	3,205	2,420	531	117	294	70	33	6,669
1996 Total	3,590	2,467	577	84	316	71	33	7,137
1997 Total	3,640	2,350	551	106	325	70	34	7,075
1998 Total	3,297	2,175	542	117	328	70	31	6,561
1999 Total	3,268	2,224	540	122	331	69	46	6,599
2000 Total	2,811	2,257	511	139	317	66	57	6,158
2001 January	191	177	43	15	28	5	4	463
February	177	157	38	12	24	5	4	418
March	208	169	43	12	27	5	5	470
April	183	165	43	11	25	5	7	438
May	195	162	42	11	24	6	6	447
June	210	165	43	12	25	6	7	467
July	183	170	45	11	27	6	6	449
August	192	174	44	10	26	6	6	459
September	155	165	42	12	26	6	5	410
October	155	175	43	16	26	5	6	426
November	156	167	43	13	26	5	5	415
December	196	171	45	13	27	5	6	463
Total	2,201	2,017	514	147	311	65	68	5,324
2002 January	R 221	177	R 49	13	R 29	5	8	R 501
February	204	R 155	R 43	12	R 26	5	7	R 453
March	213	167	R 49	12	R 28	5	9	R 482
April	R 245	R 166	R 46	12	R 25	5	R 10	R 510
May	R 270	R 175	R 48	14	R 28	6	11	R 551
June	R 285	R 167	R 49	12	R 26	6	R 11	556
July	R 258	R 184	R 52	15	R 29	6	9	R 551
August	R 213	R 171	R 52	14	R 28	6	10	R 494
September	R 173	R 178	R 48	15	R 27	5	R 7	R 454
October	R 174	R 188	R 48	17	R 28	5	R 7	R 468
November	R 200	R 174	R 48	20	R 27	5	7	R 480
December	R 219	R 182	R 50	19	R 28	5	8	R 510
Total	R 2,675	R 2,083	R 582	174	R 328	64	R 105	R 6,011
2003 January	199	165	44	17	26	5	6	462
February	199	153	40	20	23	5	7	446
March	246	177	48	17	26	5	10	529
April	253	169	46	20	24	5	11	528
May	303	167	47	19	24	6	9	574
June	288	170	47	19	25	6	10	565
July	250	178	50	20	25	6	9	537
August	231	174	49	21	25	6	8	513
September	R 184	R 165	R 45	18	R 25	5	R 8	R 451
October	194	169	46	21	26	5	10	471
10-Month Total	2,348	1,686	463	190	248	54	88	5,077
2002 10-Month Total	2,256	1,728	483	136	273	54	90	5,020
2001 10-Month Total	1,849	1,679	426	122	258	55	57	4,446

^a Hydroelectricity generated by pumped storage is not included in renewable energy.

^b Wood, black liquor, and other wood waste.

^c Municipal solid waste, landfill gas, sludge waste, tires, agricultural byproducts, and other biomass.

^d Ethanol blended into motor gasoline.

^e Geothermal electricity net generation, heat pump, and direct use energy.

^f Solar thermal and photovoltaic electricity net generation, and solar thermal

direct use energy.

^g Wind electricity net generation.

R=Revised. NA=Not available. (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.

Web Page: <http://www.eia.doe.gov/emeu/mer/renew.html>.

Sources: Tables 10.2a, 10.2b, and 10.2c.

**Table 10.2a Estimated Renewable Energy Consumption:
Residential and Commercial Sectors**
(Trillion Btu)

	Residential Sector				Commercial Sector ^a				
	Wood ^b	Geothermal ^c	Solar ^d	Total	Hydropower ^e	Wood ^b	Waste ^f	Geothermal ^c	Total
1973 Total	354	NA	NA	354	NA	7	NA	NA	7
1974 Total	371	NA	NA	371	NA	7	NA	NA	7
1975 Total	425	NA	NA	425	NA	8	NA	NA	8
1976 Total	482	NA	NA	482	NA	9	NA	NA	9
1977 Total	542	NA	NA	542	NA	10	NA	NA	10
1978 Total	622	NA	NA	622	NA	12	NA	NA	12
1979 Total	728	NA	NA	728	NA	14	NA	NA	14
1980 Total	859	NA	NA	859	NA	21	NA	NA	21
1981 Total	869	NA	NA	869	NA	21	NA	NA	21
1982 Total	937	NA	NA	937	NA	22	NA	NA	22
1983 Total	925	NA	NA	925	NA	22	NA	NA	22
1984 Total	923	NA	NA	923	NA	22	NA	NA	22
1985 Total	899	NA	NA	899	NA	24	NA	NA	24
1986 Total	876	NA	NA	876	NA	27	NA	NA	27
1987 Total	852	NA	NA	852	NA	29	NA	NA	29
1988 Total	885	NA	NA	885	NA	32	NA	NA	32
1989 Total	918	5	53	976	1	36	22	3	61
1990 Total	581	6	56	642	1	39	28	3	71
1991 Total	613	6	58	677	1	41	26	3	72
1992 Total	645	6	60	711	1	44	32	3	81
1993 Total	548	7	62	616	1	46	33	3	84
1994 Total	537	6	64	607	1	46	35	4	86
1995 Total	596	7	65	667	1	46	40	5	92
1996 Total	595	7	65	667	1	50	53	5	110
1997 Total	433	8	65	506	1	49	58	6	113
1998 Total	387	8	65	459	1	48	54	7	111
1999 Total	414	9	64	486	1	52	54	7	114
2000 Total	433	9	61	503	1	53	47	8	109
2001 January	35	1	5	40	(s)	4	3	1	7
February	31	1	5	37	(s)	3	3	1	7
March	35	1	5	40	(s)	4	3	1	7
April	33	1	5	39	(s)	3	3	1	7
May	35	1	5	40	(s)	3	3	1	7
June	33	1	5	39	(s)	3	3	1	8
July	35	1	5	40	(s)	4	4	1	8
August	35	1	5	40	(s)	4	4	1	8
September	33	1	5	39	(s)	3	3	1	7
October	35	1	5	40	(s)	3	3	1	7
November	33	1	5	39	(s)	3	3	1	7
December	35	1	5	40	(s)	4	3	1	8
Total	407	9	60	476	1	41	39	8	89
2002 January	30	1	5	36	(s)	4	R 3	1	R 7
February	27	1	4	32	(s)	3	3	1	7
March	30	1	5	36	(s)	4	R 3	1	R 7
April	29	1	5	34	(s)	3	R 3	1	R 7
May	30	1	5	36	(s)	R 4	4	1	8
June	29	1	5	34	(s)	3	4	1	8
July	30	1	5	36	(s)	4	4	1	8
August	30	1	5	36	(s)	R 4	4	1	8
September	29	1	5	34	(s)	3	4	1	8
October	30	1	5	36	(s)	R 4	4	1	R 8
November	29	1	5	34	(s)	3	4	1	8
December	30	1	5	36	(s)	4	R 3	1	R 7
Total	350	10	58	419	R (s)	R 42	R 42	9	R 93
2003 January	30	1	5	36	(s)	4	3	1	7
February	27	1	4	32	(s)	3	3	1	7
March	30	1	5	36	(s)	4	4	1	9
April	29	1	5	34	(s)	3	4	1	8
May	30	1	5	36	(s)	4	4	1	9
June	29	1	5	34	(s)	3	4	1	8
July	30	1	5	36	(s)	4	4	1	9
August	30	1	5	36	(s)	4	4	1	8
September	29	1	5	34	(s)	3	R 4	1	R 8
October	30	1	5	36	(s)	3	F 4	1	8
10-Month Total ...	292	8	49	349	1	34	E 39	7	81
2002 10-Month Total ...	292	8	49	349	(s)	35	35	7	78
2001 10-Month Total ...	339	8	50	397	1	34	33	7	75

^a Commercial sector fuel use, including that at commercial combined-heat-and-power (CHP) and commercial electricity-only plants. See note at end of Section 7.

^b Wood, black liquor, and other wood waste.

^c Geothermal heat pump and direct use energy.

^d Solar thermal direct use energy and photovoltaic electricity generation. Small amounts of commercial sector use are included in the residential sector.

^e Conventional hydroelectric power.

^f Municipal solid waste, landfill gas, sludge waste, tires, agricultural byproducts, and other biomass.

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

Web Page: <http://www.eia.doe.gov/emeu/mer/renew.html>.

Sources: See end of section.

**Table 10.2b Estimated Renewable Energy Consumption:
Industrial and Transportation Sectors**
(Trillion Btu)

	Industrial Sector ^a					Transportation Sector
	Hydropower ^b	Wood ^c	Waste ^d	Geothermal ^e	Total	Alcohol Fuels ^f
1973 Total	35	1,165	NA	NA	1,200	NA
1974 Total	33	1,159	NA	NA	1,192	NA
1975 Total	32	1,063	NA	NA	1,096	NA
1976 Total	33	1,220	NA	NA	1,253	NA
1977 Total	33	1,281	NA	NA	1,314	NA
1978 Total	32	1,400	NA	NA	1,432	NA
1979 Total	34	1,405	NA	NA	1,439	NA
1980 Total	33	1,600	NA	NA	1,633	NA
1981 Total	33	1,602	87	NA	1,722	7
1982 Total	33	1,516	118	NA	1,667	19
1983 Total	33	1,690	155	NA	1,879	35
1984 Total	33	1,679	204	NA	1,916	43
1985 Total	33	1,645	230	NA	1,908	52
1986 Total	33	1,610	256	NA	1,899	60
1987 Total	33	1,576	282	NA	1,891	69
1988 Total	33	1,625	308	NA	1,965	70
1989 Total	28	1,584	200	2	1,814	71
1990 Total	31	1,442	192	2	1,667	63
1991 Total	30	1,410	185	2	1,626	73
1992 Total	31	1,461	179	2	1,672	83
1993 Total	30	1,484	181	2	1,697	97
1994 Total	62	1,580	199	3	1,844	109
1995 Total	55	1,652	195	3	1,905	117
1996 Total	61	1,683	224	3	1,971	84
1997 Total	58	1,731	184	3	1,976	106
1998 Total	55	1,603	180	3	1,841	117
1999 Total	49	1,620	171	4	1,843	122
2000 Total	42	1,636	145	4	1,828	139
2001 January	2	127	14	(s)	144	15
February	2	113	11	(s)	127	12
March	3	121	13	(s)	137	12
April	3	119	13	(s)	135	11
May	3	114	12	(s)	130	11
June	3	116	12	(s)	131	12
July	2	121	12	(s)	136	11
August	3	125	12	(s)	140	10
September	2	117	12	(s)	132	12
October	2	127	13	(s)	142	16
November	2	120	14	(s)	136	13
December	3	122	14	(s)	139	13
Total	32	1,443	150	5	1,630	147
2002 January	3	R 131	15	(s)	150	13
February	3	R 115	14	(s)	R 132	12
March	3	R 121	15	(s)	R 139	12
April	R 3	R 122	14	(s)	R 140	12
May	R 3	R 131	14	(s)	R 148	14
June	3	R 123	14	(s)	R 139	12
July	3	R 138	14	(s)	R 155	15
August	R 3	R 124	14	(s)	R 142	14
September	2	R 132	14	(s)	R 149	15
October	3	R 142	15	(s)	R 160	17
November	5	R 128	15	(s)	R 149	20
December	R 5	R 134	R 16	(s)	R 156	19
Total	R 39	R 1,541	R 175	5	R 1,759	174
2003 January	4	117	14	(s)	135	17
February	4	110	13	(s)	127	20
March	5	131	15	(s)	151	17
April	4	125	14	(s)	143	20
May	5	123	14	(s)	143	19
June	5	125	14	(s)	145	19
July	5	130	14	(s)	150	20
August	5	126	15	(s)	146	21
September	R 4	R 120	R 15	(s)	R 139	18
October	4	125	15	(s)	143	21
10-Month Total	46	1,232	142	4	1,423	190
2002 10-Month Total	29	1,278	144	4	1,455	136
2001 10-Month Total	27	1,200	123	4	1,354	122

^a Industrial sector fuel use, including that at industrial combined-heat-and-power (CHP) and industrial electricity-only plants. See note at end of Section 7.

^b Conventional hydroelectric power.

^c Wood, black liquor, and other wood waste.

^d Municipal solid waste, landfill gas, sludge waste, tires, agricultural byproducts, and other biomass.

^e Geothermal heat pump and direct use energy.

^f Ethanol blended into motor gasoline.

R=Revised. NA=Not available. (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.

Web Page: <http://www.eia.doe.gov/emeu/mer/renew.html>.

Sources: See end of section.

Table 10.2c Renewable Energy Consumption: Electric Power Sector and Total
(Trillion Btu)

	Electric Power Sector ^{a,b}							Renewable Energy Consumption Total
	Hydropower ^c	Wood ^d	Waste ^e	Geothermal ^f	Solar ^g	Wind ^h	Total	
1973 Total	2,827	1	2	43	NA	NA	2,873	4,433
1974 Total	3,143	1	2	53	NA	NA	3,199	4,769
1975 Total	3,122	(s)	2	70	NA	NA	3,194	4,723
1976 Total	2,943	1	2	78	NA	NA	3,024	4,768
1977 Total	2,301	3	2	77	NA	NA	2,383	4,249
1978 Total	2,905	2	1	64	NA	NA	2,973	5,039
1979 Total	2,897	3	2	84	NA	NA	2,986	5,166
1980 Total	2,867	3	2	110	NA	NA	2,982	5,494
1981 Total	2,725	3	1	123	NA	NA	2,852	5,471
1982 Total	3,233	2	1	105	NA	NA	3,341	5,985
1983 Total	3,494	2	2	129	NA	(s)	3,627	6,488
1984 Total	3,353	5	4	165	(s)	(s)	3,527	6,431
1985 Total	2,937	8	7	198	(s)	(s)	3,150	6,033
1986 Total	3,038	5	7	219	(s)	(s)	3,270	6,132
1987 Total	2,602	8	7	229	(s)	(s)	2,846	5,687
1988 Total	2,302	10	8	217	(s)	(s)	2,536	5,489
1989 Total	^b 2,808	^b 100	^b 132	^b 308	^b 3	^b 22	^b 3,372	6,294
1990 Total	3,014	129	188	326	4	29	3,689	6,133
1991 Total	2,985	126	229	335	5	31	3,710	6,158
1992 Total	2,586	140	262	338	4	30	3,360	5,907
1993 Total	2,861	150	265	351	5	31	3,662	6,157
1994 Total	2,620	152	282	325	5	36	3,420	6,065
1995 Total	3,149	125	296	280	5	33	3,889	6,669
1996 Total	3,528	138	300	300	5	33	4,305	7,137
1997 Total	3,581	137	309	309	5	34	4,375	7,075
1998 Total	3,241	137	308	311	5	31	4,032	6,561
1999 Total	3,218	138	315	312	5	46	4,034	6,599
2000 Total	2,768	134	318	296	5	57	3,579	6,158
2001 January	189	12	27	26	(s)	4	257	463
February	175	9	24	23	(s)	4	235	418
March	204	10	27	25	(s)	5	272	470
April	180	9	27	23	(s)	7	246	438
May	192	10	27	23	1	6	259	447
June	207	12	28	23	1	7	277	467
July	181	11	29	25	1	6	253	449
August	189	11	29	25	1	6	260	459
September	152	10	27	24	1	5	219	410
October	152	10	27	24	(s)	6	220	426
November	154	10	26	24	(s)	5	220	415
December	194	11	27	25	(s)	6	263	463
Total	2,169	126	324	289	6	68	2,982	5,324
2002 January	R 218	R 13	R 30	R 27	(s)	8	R 296	R 501
February	201	10	R 27	R 24	(s)	7	R 270	R 453
March	210	R 13	R 30	R 26	(s)	9	R 288	R 482
April	R 242	11	R 28	R 23	(s)	R 10	R 316	R 510
May	R 267	R 11	R 30	R 26	1	11	R 345	R 551
June	R 283	R 12	R 31	R 24	1	R 11	R 362	556
July	R 255	R 13	R 33	R 27	1	9	R 337	R 551
August	R 211	R 13	R 33	R 26	1	10	R 293	R 494
September	R 170	R 14	R 31	R 25	1	R 7	R 248	R 454
October	R 170	R 13	R 30	R 26	(s)	R 7	R 247	R 468
November	R 195	R 13	R 30	R 25	(s)	7	R 270	R 480
December	R 214	R 14	R 32	R 26	(s)	8	R 293	R 510
Total	R 2,636	R 150	R 365	R 305	6	R 105	R 3,567	R 6,011
2003 January	195	15	27	24	(s)	6	267	462
February	195	12	24	22	(s)	7	260	446
March	241	13	29	23	1	10	317	529
April	249	12	28	22	1	11	322	528
May	297	11	29	22	1	9	368	574
June	283	13	29	23	1	10	358	565
July	245	14	32	23	1	9	324	537
August	226	15	30	23	1	8	302	513
September	R 180	R 13	R 27	R 23	1	R 8	R 251	R 451
October	F 191	F 12	F 28	F 24	F (s)	F 10	F 264	471
10-Month Total	^E 2,301	^E 129	^E 282	^E 228	^E 5	^E 88	^E 3,034	5,077
2002 10-Month Total	2,227	123	304	254	5	90	3,003	5,020
2001 10-Month Total	1,821	106	270	239	5	57	2,499	4,446

^a The electric power sector comprises electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public.

^b Through 1988, data are for consumption at electric utilities only. Beginning in 1989, data also include consumption at independent power producers.

^c Conventional hydroelectric power.

^d Wood, black liquor, and other wood waste.

^e Municipal solid waste, landfill gas, sludge waste, tires, agricultural byproducts, and other biomass.

^f Geothermal electricity net generation.

^g Solar thermal and photovoltaic electricity net generation.

^h Wind electricity net generation.

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

Web Page: <http://www.eia.doe.gov/emeu/mer/renew.html>.

Sources: **Wood and Waste • 1973-1988:** Table 7.3d. • **1989 forward:** Table 7.3b. **Hydropower, Geothermal, Solar, and Wind:** Tables 7.2b and A6. **Electric Power Sector Total:** Calculated as the sum of the individual fuels. **Renewable Energy Consumption Total:** Table 10.1. **Forecast values:** Energy Information Administration, Short-Term Integrated Forecasting System. See Note 10 at end of Section 4 for more information about forecast values.

Renewable Energy

Tables 10.2a and 10.2b Sources

Wood, Residential

1973–1979: Energy Information Administration (EIA), *Estimates of U.S. Wood Energy Consumption from 1949 to 1981*, Table A2.

1980–1983: EIA, *Estimates of U.S. Wood Energy Consumption 1980–1983*, Table ES1.

1984: EIA, *Estimates of U.S. Biofuels Consumption 1990*, Table 1.

1985 and 1986: Values interpolated.

1987: EIA, *Estimates of Biofuels Consumption in the United States During 1987*, Table 2.

1988: Value interpolated.

1989: EIA, *Estimates of U.S. Biofuels Consumption 1990*, Table 1.

1990–2000: EIA, *Renewable Energy Annual*, annual reports, Table 6. Includes revisions published in the EIA, *Annual Energy Review 2000*, Table 10.2a.

2001 forward: EIA, Office of Coal, Nuclear, Electric and Alternate Fuels (CNEAF), estimates.

Wood, Commercial

1973–1979: EIA, *Estimates of U.S. Wood Energy Consumption from 1949 to 1981*, Table A2.

1980–1983: EIA, *Estimates of U.S. Wood Energy Consumption 1980–1983*, Table ES1.

1984–EIA, CNEAF, estimate.

1985–1992: Values interpolated.

1993–2000: EIA, *Renewable Energy Annual*, annual reports, Table 6. Includes revisions published in the EIA, *Annual Energy Review 2000*, Table 10.2a.

2001 forward: EIA, CNEAF, estimates.

Wood, Industrial

1973–1979: EIA, *Estimates of U.S. Wood Energy Consumption from 1949 to 1981*, Table A2.

1980–1983: EIA, *Estimates of U.S. Wood Energy Consumption 1980–1983*, Table ES1.

1984: EIA, *Estimates of U.S. Biofuels Consumption 1990*, Table 1.

1985 and 1986: Values interpolated.

1987: EIA, *Estimates of Biofuels Consumption in the United States During 1987*, Table 2.

1988: Value interpolated.

1989: American Paper Institute, *Fact Sheet on 1990 Energy Use in the U.S. Pulp and Paper Industry* (July 1991), total pulp and paper industry wood consumption, minus nonutility power producers' use of wood to produce electricity (see Table 10.3b).

1990–2000: EIA, *Renewable Energy Annual 2001* (November 2002), Table B1, and CNEAF staff for subsequent data updates.

2001 forward: EIA, CNEAF, estimates.

Waste, Commercial

Table 7.3c

Waste, Industrial

1981: EIA, *Estimates of U.S. Biofuels Consumption 1990*, Table 8, total waste consumption, minus electric utilities' use of waste to produce electricity (see Table 10.3a).

1982 and 1983: EIA, CNEAF, estimates for total waste consumption, minus electric utilities' use of waste to produce electricity (see Table 10.3a).

1984: EIA, *Estimates of U.S. Biofuels Consumption 1990*, Table 8, total waste consumption, minus electric utilities' use of waste to produce electricity (see Table 10.3a).

1985 and 1986: Values interpolated.

1987: EIA, *Estimates of U.S. Biofuels Consumption 1990*, Table 8, total waste consumption, minus electric utilities' use of waste to produce electricity (see Table 10.3a).

1988: Value interpolated.

1989: EIA, *Estimates of U.S. Biofuels Consumption 1990*, Table 8, total waste consumption, minus electric utilities' and nonutility power producers' use of waste to produce electricity (see Tables 10.3a and 10.3b).

1990–2000: EIA, *Renewable Energy Annual 2001* (November 2002), Table B1, and CNEAF staff for subsequent data updates.

2001 forward: EIA, CNEAF, estimates.

Hydroelectric, Commercial

Hydroelectric total (all sectors) from Table 7.2a minus electric power sector hydroelectric from Table 7.2b minus industrial sector hydroelectric from Table 7.2c, times the fossil-fueled steam-electric plants heat rate from Table A6.

Hydroelectric, Industrial

1973–1978: Federal Power Commission (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, and Table A6.

1979–FPC, Form FPC-4, "Monthly Power Plant Report," for plants with generating capacity exceeding 10 megawatts, and EIA estimates for all other plants; and Table A6.

1980–1988: Estimated by EIA as the average generation over the 6-year period of 1974–1979, and Table A6.

1989 forward: Tables 7.2c and A6.

Alcohol Fuels

1981: EIA, *Estimates of U.S. Biofuels Consumption 1990*, Table 10.

1982 and 1983: EIA, CNEAF, estimates.

1984: EIA, *Estimates of U.S. Biofuels Consumption 1990*, Table 10.

1985 and 1986: Values interpolated.

1987: EIA, *Estimates of U.S. Biofuels Consumption 1990*, Table 10.

1988: Value interpolated.

1989: EIA, *Estimates of U.S. Biofuels Consumption 1990*, Table 10.

1990: EIA, *Estimates of U.S. Biomass Energy Consumption 1992*, Table D1.

1991: Value interpolated.

1992: EIA, *Estimates of U.S. Biomass Energy Consumption 1992*, Table D1.

1993 forward: EIA, *Petroleum Supply Monthly (PSM)*, Tables 2 and 28, and *Monthly Energy Review (MER)* Table A1. Ten percent of the “Field Production” of “Oxygenated Finished Motor Gasoline” from *PSM* Table 2 is added to the “Refinery Input of Fuel Ethanol” from *PSM* Table 28. The sum is multiplied by the conversion factor of 3.539 million Btu per barrel as shown in the *MER* Table A1.

Geothermal

1989 forward: John Lund, Oregon Institute of Technology Geoheat Center, unpublished data.

Solar

1989–1991: EIA, CNEAF, estimates.

1992–2000: EIA *Renewable Energy Annual*, annual reports, Table 2. Includes revisions published in the EIA, *Annual Energy Review 2000*, Table 10.2a and 10.2b.

2001 forward: EIA, CNEAF, estimates.

Section 11. International Petroleum

Crude Oil Production. World crude oil production during October 2003 was 71 million barrels per day, up 1.0 million barrels per day from the level in the previous month.

Organization of Petroleum Exporting Countries (OPEC) production during October 2003 averaged 29 million barrels per day, up by 0.6 million barrels per day from the level during the previous month. During October 2003, production increased in Iraq by 350 thousand barrels per day; both Saudi Arabia and Kuwait by 100 thousand barrels per day; and the United Arab Emirates by 30 thousand barrels per day. Production decreased in both Libya and Indonesia by 5 thousand barrels per day. Production remained unchanged in Iran, Venezuela, Nigeria, Algeria, and Qatar.

Among the non-OPEC nations, production during October 2003 increased in Norway by 127 thousand barrels per day; the United Kingdom by 125 thousand barrels per day; China by 30 thousand barrels per day; Russia by 20 thousand barrels per day; Canada by 12 thousand barrels per day; and Egypt by 1 thousand barrels per day. Production decreased in Mexico by 19 thousand barrels per day and the United

States by 15 thousand barrels per day.

Petroleum Consumption. In September 2003, consumption in all Organization for Economic Cooperation and Development (OECD) countries was 48.5 million barrels per day, 2 percent¹ higher than the September 2002 rate. Comparing September rates in 2003 and 2002, consumption was higher in 2003 in France (+9 percent); Italy (+6 percent); the United States and the United Kingdom (both +3 percent); and Canada (+2 percent). The September 2003 consumption rate was lower in South Korea (-5 percent) and Germany and Japan (both -2 percent), compared with the rate 1 year earlier.

Petroleum Stocks. For all OECD countries, petroleum stocks at the end of September 2003 totaled 3.9 billion barrels, 2 percent¹ higher than the ending stock level in September 2002. Stock levels were higher in September 2003 in Canada (+8 percent); Japan and South Korea (both +4 percent); Italy and France (both +3 percent); and the United States (+1 percent). Stock levels were lower in the United Kingdom (-6 percent) and Germany (less than -1 percent), compared with levels 1 year earlier.

¹Percentage changes are based on unrounded data.

Table 11.1a World Crude 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 Average	1,202	1,503	3,643	560	2,057	1,390	1,993	442	8,231	2,233	2,750	26,004
1996 Average	1,242	1,547	3,686	579	2,062	1,401	2,001	510	8,218	2,278	2,938	26,461
1997 Average	1,277	1,520	3,664	1,155	2,007	1,446	2,132	550	8,362	2,316	3,280	27,710
1998 Average	1,246	1,518	3,634	2,150	2,085	1,390	2,153	696	8,389	2,345	3,167	28,774
1999 Average	1,202	1,472	3,557	2,508	1,898	1,319	2,130	665	7,833	2,169	2,826	27,579
2000 Average	1,254	1,423	3,696	2,571	2,079	1,410	2,165	737	8,404	2,368	3,155	29,262
2001 January	1,295	1,435	3,935	1,735	2,169	1,450	2,285	775	8,700	2,460	3,100	29,339
February	1,265	1,440	3,785	2,195	2,100	1,400	2,255	735	8,320	2,400	3,030	28,925
March	1,265	1,395	3,835	2,855	2,070	1,390	2,285	735	8,300	2,440	3,000	29,570
April	1,250	1,352	3,785	2,930	1,982	1,380	2,210	715	7,950	2,350	2,920	28,824
May	1,265	1,362	3,685	2,905	1,965	1,360	2,140	725	8,000	2,297	2,890	28,594
June	1,285	1,382	3,785	1,105	2,001	1,370	2,205	735	8,050	2,280	2,900	27,098
July	1,295	1,370	3,875	2,145	1,992	1,380	2,140	735	8,250	2,260	2,890	28,332
August	1,295	1,360	3,785	2,875	2,006	1,380	2,207	725	8,070	2,247	2,880	28,830
September	1,265	1,350	3,655	2,673	1,942	1,350	2,360	685	7,800	2,170	2,720	27,970
October	1,245	1,340	3,535	2,911	1,922	1,320	2,350	685	7,670	2,140	2,750	27,868
November	1,255	1,340	3,535	2,805	1,913	1,310	2,350	665	7,670	2,140	2,740	27,723
December	1,255	1,310	3,491	2,025	1,913	1,310	2,290	655	7,600	2,140	2,750	26,739
Average	1,270	1,369	3,724	2,432	1,998	1,367	2,256	714	8,031	2,276	2,880	28,317
2002 January	1,221	1,310	3,385	2,315	1,850	1,260	2,150	625	7,300	2,060	2,630	26,106
February	1,215	1,280	3,365	2,545	1,803	1,280	2,100	625	7,210	2,050	2,600	26,073
March	1,235	1,280	3,385	2,515	1,850	1,290	2,120	635	7,310	2,055	2,620	26,295
April	1,245	1,270	3,375	1,215	1,860	1,300	2,130	655	7,455	2,070	2,530	25,105
May	1,275	1,270	3,395	1,865	1,880	1,310	2,070	675	7,450	2,060	2,730	25,980
June	1,285	1,270	3,415	1,525	1,890	1,320	2,060	665	7,500	2,060	2,700	25,725
July	1,305	1,265	3,425	1,835	1,910	1,330	2,050	675	7,700	2,080	2,735	26,310
August	1,315	1,260	3,440	1,505	1,910	1,330	2,100	685	7,730	2,090	2,765	26,130
September	1,345	1,260	3,485	1,825	1,930	1,350	2,143	695	7,880	2,103	2,955	26,971
October	1,395	1,260	3,535	2,425	1,930	1,350	2,140	725	7,900	2,113	2,980	27,753
November	1,383	1,250	3,535	2,395	1,940	1,350	2,150	730	8,100	2,100	2,972	27,905
December	1,445	1,230	3,585	2,325	1,970	1,350	2,200	755	8,050	2,140	1,020	26,069
Average	1,306	1,267	3,444	2,023	1,894	1,319	2,118	679	7,634	2,082	2,604	26,370
2003 January	1,490	1,230	3,660	2,555	1,990	1,375	2,310	760	8,570	2,200	630	26,769
February	1,495	1,225	3,735	2,490	2,050	1,400	2,360	785	8,870	2,250	1,450	28,110
March	1,555	1,200	3,760	1,373	2,300	1,405	2,030	785	9,460	2,450	2,390	28,708
April	1,645	1,180	3,755	53	2,400	1,430	1,965	785	9,600	2,450	2,555	27,818
May	1,645	1,170	3,755	293	2,285	1,435	2,050	785	9,400	2,400	2,665	27,883
June	1,625	1,165	3,755	453	2,100	1,430	2,150	735	8,700	2,350	2,640	27,103
July	1,645	1,165	3,785	573	2,100	1,430	2,185	735	8,610	2,350	2,640	27,218
August	1,645	1,150	3,785	1,053	2,100	1,425	2,260	735	8,610	2,340	2,640	27,743
September	1,645	1,150	3,785	1,403	2,100	1,425	2,360	735	8,550	2,300	2,640	28,093
October	1,645	1,145	3,785	1,753	2,200	1,420	2,360	735	8,650	2,330	2,640	28,663
10-Mo. Avg.	1,604	1,178	3,756	1,193	2,163	1,418	2,202	757	8,902	2,343	2,294	27,809
2002 10-Mo. Avg.	1,284	1,272	3,421	1,955	1,882	1,312	2,106	666	7,546	2,074	2,729	26,250
2001 10-Mo. Avg.	1,273	1,378	3,766	2,437	2,015	1,378	2,243	725	8,111	2,304	2,907	28,537

^a Except for the period from August 1990 through May 1991, includes about one-half of the production in the Kuwait-Saudi Arabia Neutral Zone. Kuwaiti Neutral Zone output was discontinued following Iraq's invasion of Kuwait on August 2, 1990, but was resumed in June 1991. In October 2003, Neutral Zone production by both Kuwait and Saudi Arabia totaled about 600 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.

Web Page: <http://www.eia.doe.gov/emeu/mer/inter.html>.

Sources: See end of section.

Table 11.1b World Crude 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	35,815	60,213
1993 Average	16,715	1,679	2,890	890	2,673	2,350	-	6,730	1,915	6,847	35,117	60,236
1994 Average	16,964	1,746	2,939	896	2,685	2,521	-	6,135	2,375	6,662	35,481	60,991
1995 Average	17,208	1,805	2,990	920	2,618	2,768	-	5,995	2,489	6,560	36,331	62,335
1996 Average	17,367	1,837	3,131	922	2,855	3,104	-	5,850	2,568	6,465	37,250	63,711
1997 Average	18,095	1,922	3,200	856	3,023	3,143	-	5,920	2,518	6,452	37,980	65,690
1998 Average	19,337	1,981	3,198	834	3,070	3,017	-	5,854	2,616	6,252	38,147	66,921
1999 Average	18,667	1,907	3,195	852	2,906	3,018	-	6,079	2,684	5,881	38,269	65,848
2000 Average	19,892	1,977	3,249	748	3,012	3,197	-	6,479	2,275	5,822	39,081	68,342
2001												
January	19,809	2,032	3,220	731	3,117	3,230	-	6,875	2,338	5,799	39,706	69,045
February	19,570	2,052	3,330	720	3,166	3,057	-	6,966	2,279	5,780	39,656	68,581
March	20,270	2,070	3,376	716	3,181	3,128	-	6,808	2,323	5,880	39,703	69,273
April	19,747	2,046	3,302	712	3,037	3,203	-	6,855	2,318	5,863	39,551	68,374
May	19,612	2,027	3,310	651	3,060	2,939	-	6,917	2,262	5,829	39,080	67,674
June	17,991	1,971	3,312	685	3,170	2,928	-	6,956	2,128	5,766	39,004	66,103
July	19,292	1,953	3,262	688	3,216	3,262	-	7,124	2,234	5,749	39,745	68,077
August	19,743	1,954	3,303	693	3,205	2,872	-	7,125	2,211	5,725	39,437	68,267
September	18,960	2,009	3,288	697	3,207	3,154	-	7,189	2,230	5,709	39,922	67,892
October	18,898	2,046	3,313	692	3,022	3,256	-	7,233	2,361	5,746	39,914	67,782
November	18,763	2,082	3,316	698	3,198	3,124	-	7,306	2,280	5,881	40,308	68,031
December	17,859	2,110	3,272	700	3,305	3,249	-	7,233	2,418	5,887	40,841	67,579
Average	19,210	2,029	3,300	698	3,157	3,117	-	7,049	2,282	5,801	39,740	68,057
2002												
January	17,570	2,091	3,365	627	3,253	3,079	-	7,017	2,396	5,848	40,350	66,456
February	17,633	2,167	3,330	629	3,142	3,150	-	7,094	2,392	5,871	40,469	66,542
March	17,785	2,159	3,350	624	3,125	2,787	-	7,157	2,334	5,883	40,088	66,383
April	16,665	2,204	3,333	630	3,178	3,157	-	7,179	2,388	5,859	40,679	65,784
May	17,360	2,130	3,365	667	3,136	3,028	-	7,184	2,338	5,924	40,398	66,378
June	17,090	2,155	3,415	635	3,158	2,918	-	7,337	2,323	5,915	40,499	66,224
July	17,660	2,201	3,395	628	3,145	3,114	-	7,441	2,114	5,770	40,413	66,723
August	17,395	2,165	3,490	624	3,214	2,896	-	7,574	1,953	5,811	40,412	66,542
September	17,953	2,135	3,430	628	3,162	2,752	-	7,686	2,186	5,411	40,155	67,126
October	18,663	2,179	3,447	625	3,257	2,993	-	7,735	2,364	5,363	40,704	68,457
November	18,835	2,224	3,379	629	3,080	3,059	-	7,753	2,350	5,597	40,691	68,596
December	18,859	2,238	3,371	630	3,269	2,962	-	7,721	2,375	5,699	40,808	68,877
Average	17,792	2,171	3,390	631	3,177	2,990	-	7,408	2,292	5,746	40,472	66,842
2003												
January	19,769	2,220	3,354	630	3,330	2,935	-	7,765	2,256	^E 5,842	40,958	67,727
February	20,215	2,215	3,375	630	3,325	3,015	-	7,831	2,275	^E 5,915	41,233	69,343
March	20,163	2,235	3,385	625	3,317	2,965	-	7,868	2,250	^E 5,890	41,118	69,826
April	19,078	2,185	3,445	625	3,282	2,860	-	7,922	2,145	^E 5,813	40,928	68,746
May	18,953	2,190	3,430	625	3,320	2,845	-	8,030	2,005	^E 5,783	40,903	68,786
June	18,128	2,250	3,450	620	3,396	2,576	-	8,180	1,950	^E 5,746	40,930	68,033
July	18,188	2,405	3,405	610	3,400	2,840	-	8,250	1,988	^E 5,662	^R 41,386	^R 68,604
August	18,658	2,365	3,425	605	3,426	2,699	-	8,345	1,892	^E 5,642	41,303	69,046
September	18,908	2,380	3,371	614	3,417	2,689	-	8,470	2,040	^E 5,657	^R 41,537	^R 69,630
October	19,488	2,392	3,401	615	3,398	2,816	-	8,490	2,165	^E 5,642	41,977	70,640
10-Mo. Avg.	19,149	2,284	3,404	620	3,361	2,823	-	8,117	2,095	^E 5,758	41,228	69,037
2002 10-Mo. Avg.	17,580	2,158	3,393	632	3,177	2,986	-	7,342	2,277	5,765	40,416	66,666
2001 10-Mo. Avg.	19,392	2,016	3,301	698	3,138	3,103	-	7,005	2,269	5,785	39,572	68,109

^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. 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

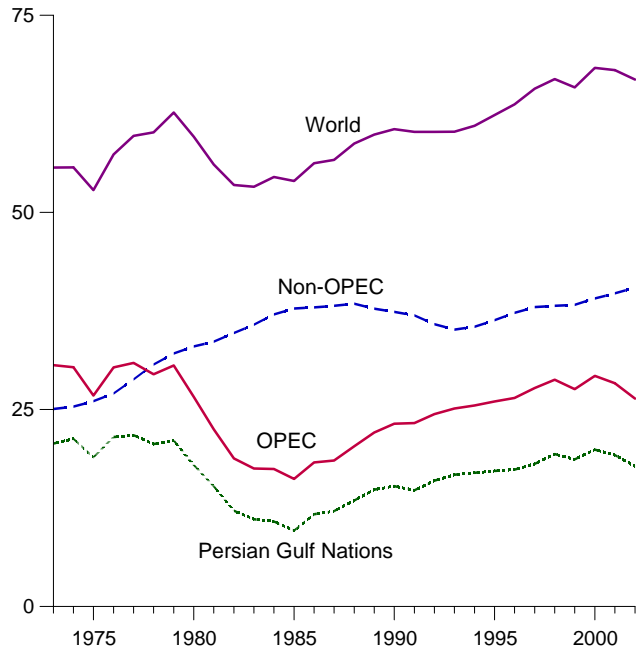
average to the annual totals because of rounding or because updates to the preliminary monthly data are not available. • Data for countries may not sum to World totals due to independent rounding. • U.S. geographic coverage is the 50 States and the District of Columbia.

Web Page: <http://www.eia.doe.gov/emeu/mer/inter.html>.

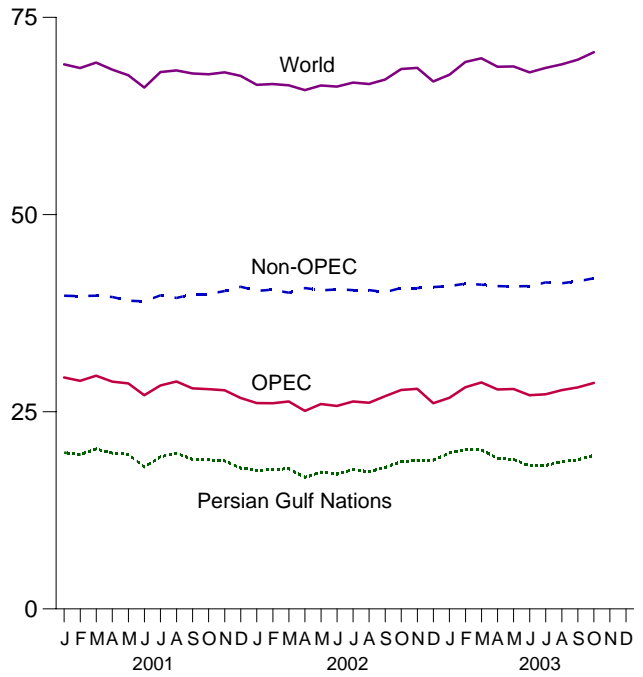
Sources: See end of section.

Figure 11.1a Crude Oil Production Overview
(Million Barrels per Day)

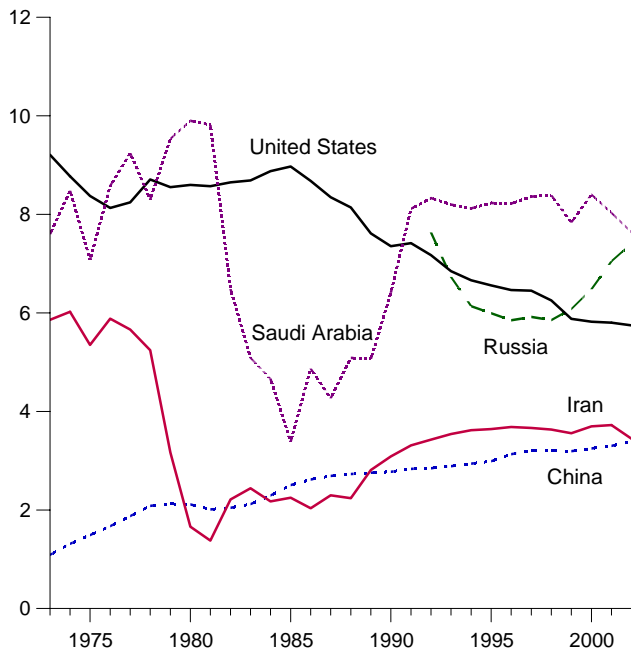
World Production, 1973-2002



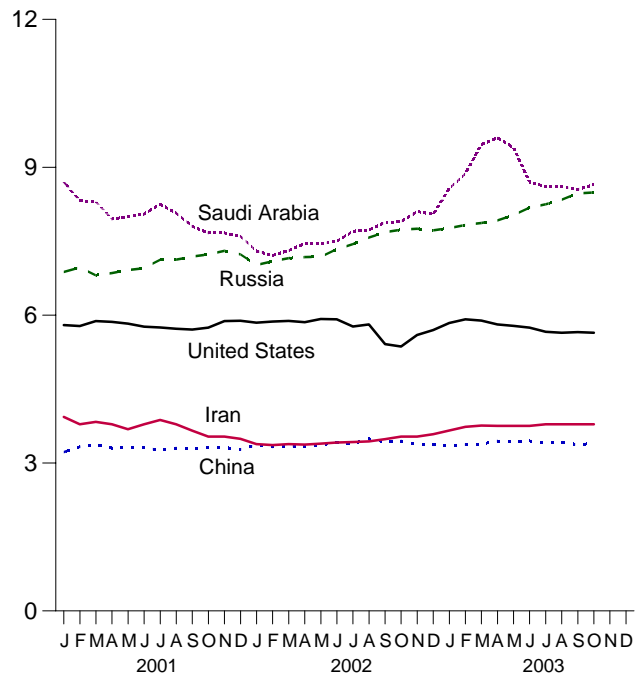
World Production, Monthly



Selected Producers, 1973-2002

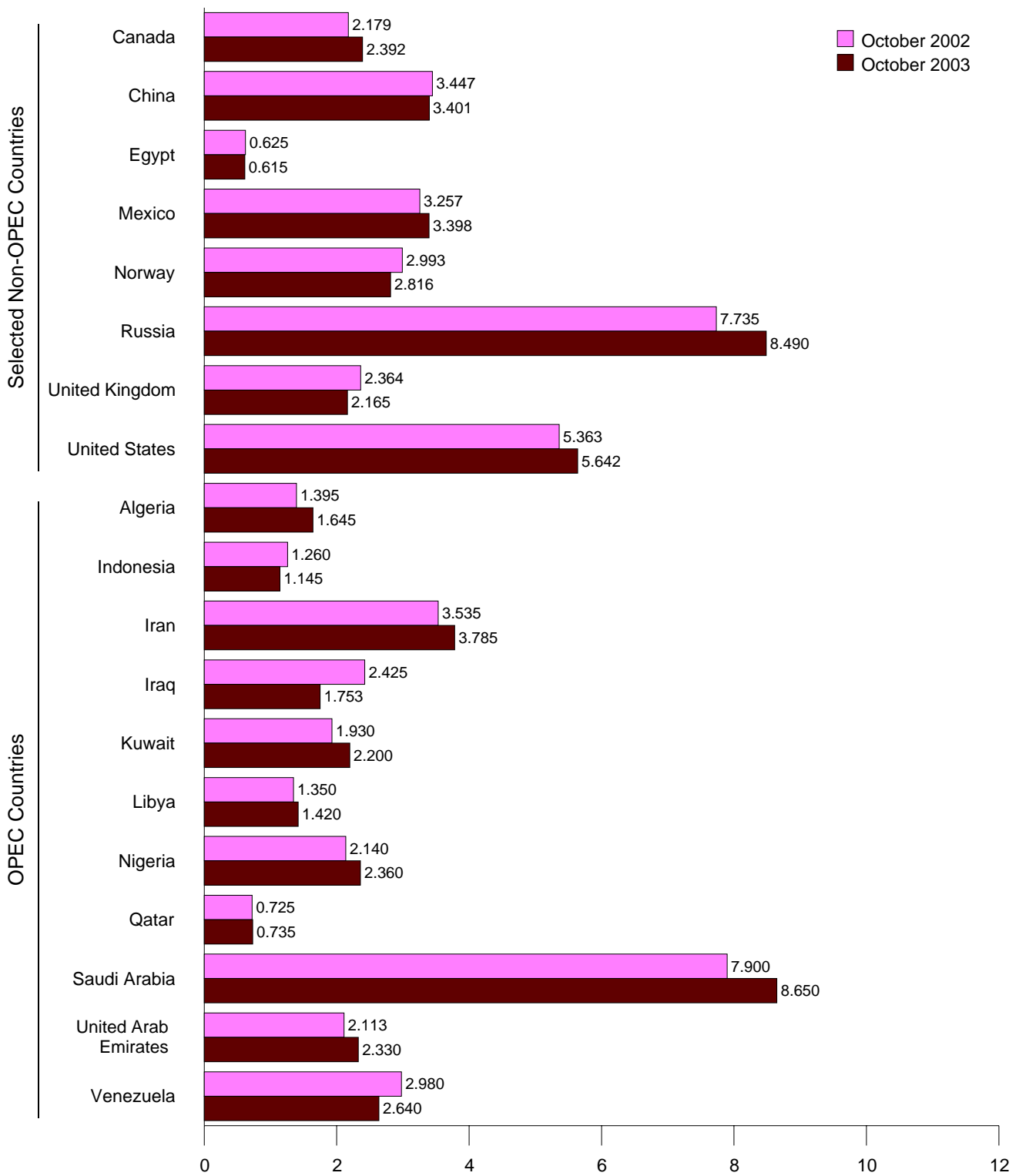


Selected Producers, Monthly



Note: OPEC is the Organization of Petroleum Exporting Countries.
Web Page: <http://www.eia.doe.gov/emeu/mer/inter.html>.
Sources: Tables 11.1a and 11.1b.

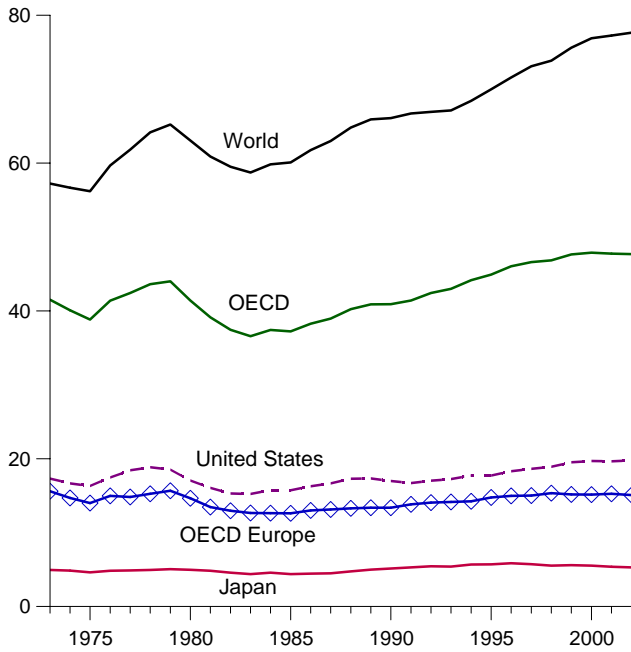
Figure 11.1b Crude Oil Production by Selected Country
(Million Barrels per Day)



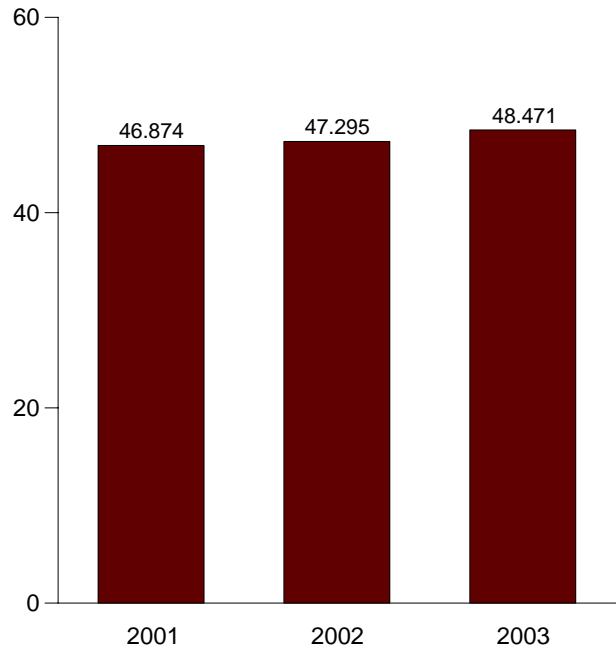
Note: OPEC is the Organization of Petroleum Exporting Countries.
 Web Page: <http://www.eia.doe.gov/emeu/mer/inter.html>.
 Sources: Tables 11.1a and 11.1b.

Figure 11.2 Petroleum Consumption in OECD Countries
(Million Barrels per Day)

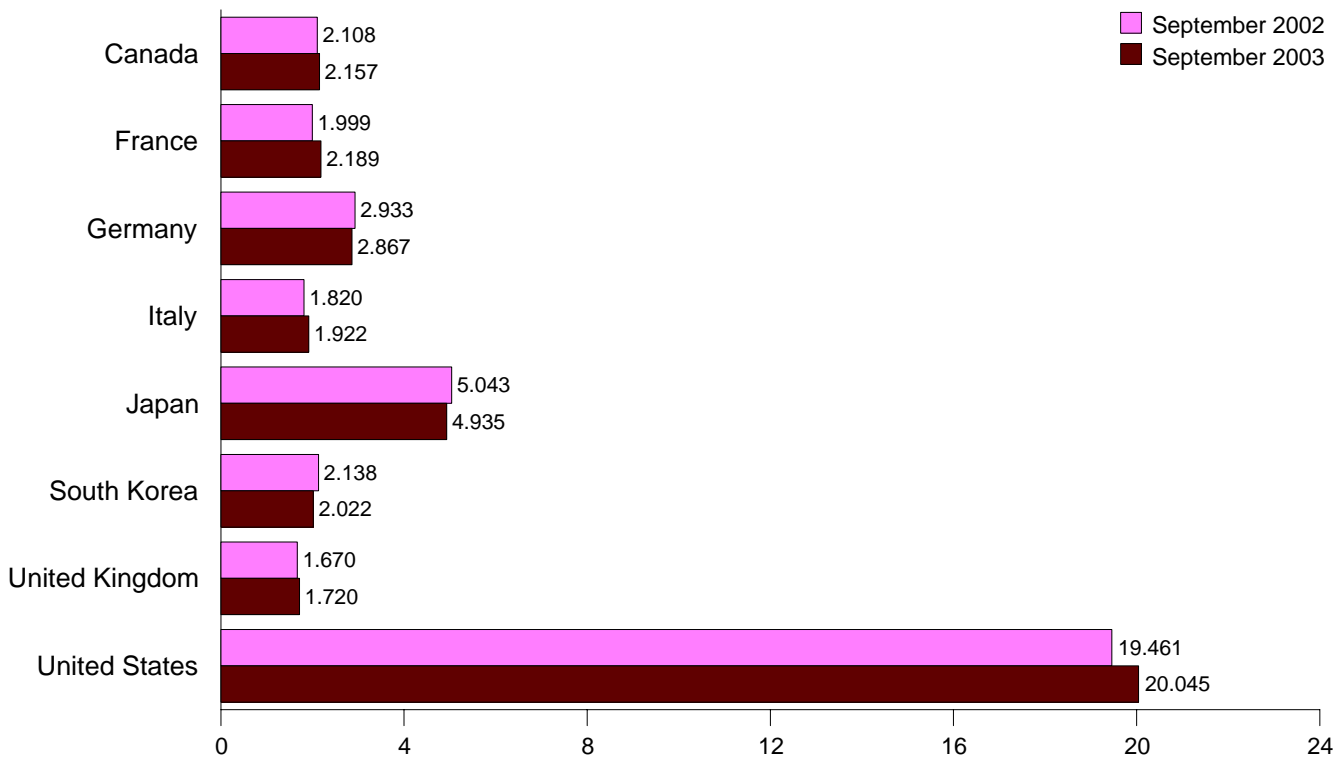
Overview, 1973-2002



OECD Total, September



By Selected OECD Country



Notes: • OECD is the Organization for Economic Cooperation and Development. • Because vertical scales differ, graphs should not be compared.

Web Page: <http://www.eia.doe.gov/emeu/mer/inter.html>.
Source: Table 11.2.

Table 11.2 Petroleum Consumption in OECD Countries
(Thousand Barrels per Day)

	Canada	France	Germany ^a	Italy	Japan	South Korea	United Kingdom	United States	OECD Europe ^b	Other OECD ^c	OECD ^d	World
1973 Average	1,729	2,601	3,324	2,068	4,949	281	2,341	17,308	15,598	1,658	41,523	57,237
1974 Average	1,779	2,447	3,030	2,004	4,864	287	2,210	16,653	14,699	1,806	40,089	56,677
1975 Average	1,779	2,252	2,957	1,855	4,621	311	1,911	16,322	13,998	1,794	38,825	56,198
1976 Average	1,818	2,420	3,206	1,971	4,837	357	1,892	17,461	14,964	1,946	41,382	59,673
1977 Average	1,850	2,294	3,212	1,897	4,880	422	1,905	18,431	14,810	2,035	42,429	61,826
1978 Average	1,902	2,408	3,290	1,952	4,945	482	1,938	18,847	15,247	2,194	43,616	64,158
1979 Average	1,971	2,463	3,373	2,039	5,050	525	1,971	18,513	15,668	2,278	44,005	65,220
1980 Average	1,873	2,256	3,082	1,934	4,960	537	1,725	17,056	14,640	2,342	41,408	63,067
1981 Average	1,768	2,023	2,804	1,874	4,848	536	1,590	16,058	13,452	2,479	39,141	60,903
1982 Average	1,578	1,880	2,743	1,781	4,582	534	1,590	15,296	12,965	2,484	37,439	59,503
1983 Average	1,448	1,835	2,661	1,750	4,395	561	1,531	15,231	12,650	2,303	36,588	58,739
1984 Average	1,472	1,754	2,662	1,646	4,576	587	1,849	15,726	12,629	2,442	37,432	59,831
1985 Average	1,504	1,775	2,700	1,717	4,384	569	1,634	15,726	12,603	2,441	37,228	60,091
1986 Average	1,506	1,772	2,860	1,738	4,439	607	1,649	16,281	13,009	2,436	38,277	61,759
1987 Average	1,548	1,789	2,767	1,855	4,484	639	1,603	16,665	13,142	2,479	38,957	62,999
1988 Average	1,693	1,797	2,744	1,836	4,752	731	1,697	17,283	13,291	2,489	40,238	64,819
1989 Average	1,733	1,857	2,581	1,930	4,983	843	1,738	17,325	13,359	2,638	40,881	65,917
1990 Average	1,690	1,818	2,664	1,872	5,140	1,025	1,752	16,988	13,368	2,706	40,917	66,083
1991 Average	1,622	1,935	2,828	1,863	5,284	1,202	1,801	16,714	13,827	2,751	41,400	66,721
1992 Average	1,643	1,926	2,843	1,937	5,446	1,456	1,803	17,033	14,073	2,773	42,424	66,933
1993 Average	1,688	1,875	2,900	1,852	5,401	1,690	1,815	17,237	14,140	2,826	42,982	67,123
1994 Average	1,727	1,833	2,879	1,841	5,674	1,856	1,837	17,718	14,226	2,966	44,167	68,420
1995 Average	1,755	1,896	2,875	2,048	5,711	2,007	1,845	17,725	14,756	2,963	44,917	69,993
1996 Average	1,797	1,935	2,911	2,058	5,867	2,155	1,845	18,309	14,964	2,951	46,042	71,581
1997 Average	1,923	1,957	2,915	1,908	5,728	2,260	1,805	18,620	15,009	3,073	46,614	73,099
1998 Average	1,947	2,030	2,921	1,945	5,528	1,930	1,789	18,917	15,335	3,185	46,841	73,859
1999 Average	2,029	2,027	2,836	1,841	5,587	2,075	1,739	19,519	15,169	3,267	47,646	75,610
2000 Average	2,073	2,021	2,775	1,867	5,528	2,146	1,721	19,701	15,146	3,282	47,876	76,896
2001 January	2,108	2,180	2,695	1,797	6,011	2,431	1,732	20,092	15,220	3,260	49,121	NA
February	2,140	2,116	2,641	1,886	6,347	2,289	1,734	19,689	15,209	3,347	49,022	NA
March	1,992	2,023	2,785	1,776	5,830	2,245	1,843	19,876	15,171	3,432	48,547	NA
April	1,914	2,026	2,701	1,682	5,092	1,990	1,744	19,729	14,658	3,193	46,577	NA
May	2,031	1,910	2,715	1,775	4,886	1,987	1,699	19,501	14,765	3,368	46,538	NA
June	2,019	1,981	2,877	1,744	4,818	2,042	1,668	19,561	14,866	3,284	46,591	NA
July	2,034	2,067	2,979	1,886	5,105	1,820	1,664	19,919	15,334	3,244	47,456	NA
August	2,191	2,002	3,059	1,798	5,182	1,913	1,703	20,153	15,423	3,421	48,283	NA
September	1,938	2,100	2,913	2,000	4,934	2,153	1,777	19,016	15,758	3,075	46,874	NA
October	2,058	2,073	2,882	1,876	4,912	1,932	1,692	19,824	15,511	3,288	47,526	NA
November	2,111	2,094	2,926	1,878	5,456	2,257	1,774	19,396	15,849	3,245	48,314	NA
December	1,983	2,072	2,590	1,973	6,150	2,537	1,665	19,003	15,378	3,253	48,304	NA
Average	2,043	2,053	2,815	1,839	5,389	2,132	1,724	19,649	15,262	3,285	47,760	77,256
2002 January	2,057	2,215	2,583	1,925	5,670	2,434	1,664	19,454	^R 15,293	3,215	^R 48,124	NA
February	2,081	2,070	2,684	2,008	5,991	2,300	1,732	19,444	^R 15,349	3,428	^R 48,592	NA
March	2,067	1,956	2,648	1,845	5,415	2,316	1,745	19,676	^R 14,818	3,216	^R 47,508	NA
April	1,996	1,933	2,675	1,806	4,861	2,175	1,702	19,552	^R 14,817	3,325	^R 46,726	NA
May	1,998	1,786	2,491	1,789	4,470	1,895	1,668	19,728	^R 14,304	3,237	^R 45,631	NA
June	2,060	1,937	2,775	1,809	4,547	1,917	1,622	19,875	^R 14,774	3,196	^R 46,368	NA
July	2,120	2,095	2,921	1,919	5,032	1,896	1,695	20,076	^R 15,487	3,290	^R 47,900	NA
August	2,150	1,867	2,788	1,735	5,002	1,995	1,701	20,221	^R 14,780	3,295	^R 47,443	NA
September	2,108	1,999	2,933	1,820	5,043	2,138	1,670	19,461	^R 15,266	3,278	^R 47,295	NA
October	2,179	2,071	2,771	1,912	5,106	2,148	1,718	19,678	^R 15,602	3,335	^R 48,048	NA
November	2,173	1,979	2,746	1,771	5,926	2,365	1,746	19,991	^R 15,299	3,204	^R 48,958	NA
December	2,122	1,909	2,642	1,847	6,585	2,585	1,693	19,943	^R 15,137	^R 3,372	^R 49,745	NA
Average	2,093	1,984	2,721	1,848	5,301	2,180	1,696	19,761	^R 15,075	^R 3,282	^R 47,691	^R 77,659
2003 January	2,132	2,174	2,358	1,775	6,057	2,550	1,724	20,042	15,009	3,297	49,086	NA
February	2,275	2,246	2,698	2,023	6,480	2,441	1,709	20,396	15,886	3,398	50,876	NA
March	2,120	1,928	2,529	1,799	6,073	2,236	1,707	19,682	14,750	3,338	48,199	NA
April	2,038	1,974	2,735	1,812	5,129	2,001	1,705	19,770	15,113	3,415	47,466	NA
May	2,169	1,887	2,752	1,786	4,905	2,021	1,649	19,277	^R 14,862	3,447	^R 46,681	NA
June	2,095	2,027	2,676	1,848	4,954	2,082	1,649	19,767	^R 14,993	3,385	^R 47,276	NA
July	^R 2,135	2,142	2,641	1,896	4,827	1,950	1,680	20,175	^R 15,385	3,472	^R 47,942	NA
August	^R 2,125	1,888	2,454	1,740	4,845	1,981	1,574	20,665	^R 14,508	^R 3,335	^R 47,458	NA
September	2,157	2,189	2,867	1,922	4,935	2,022	1,720	20,045	15,867	3,445	48,471	NA
9-Mo. Avg.	2,137	2,048	2,632	1,842	5,347	2,140	1,679	19,977	15,142	3,392	48,137	NA
2002 9-Mo. Avg.	2,071	1,984	2,722	1,849	5,108	2,117	1,689	19,725	14,984	3,274	47,279	NA
2001 9-Mo. Avg.	2,041	2,044	2,820	1,816	5,350	2,095	1,729	19,730	15,156	3,292	47,664	NA

^a Data are for unified Germany, i.e., the former East Germany and West Germany.

^b "OECD Europe" consists of Austria, Belgium, Czech Republic (beginning in 1993), Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Poland, Portugal, Spain, Sweden, Switzerland, Turkey, and the United Kingdom.

^c "Other OECD" consists of Australia, Mexico, 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. NA=Not available.

Notes: • Data through 1996 are final. Subsequent data are preliminary.

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

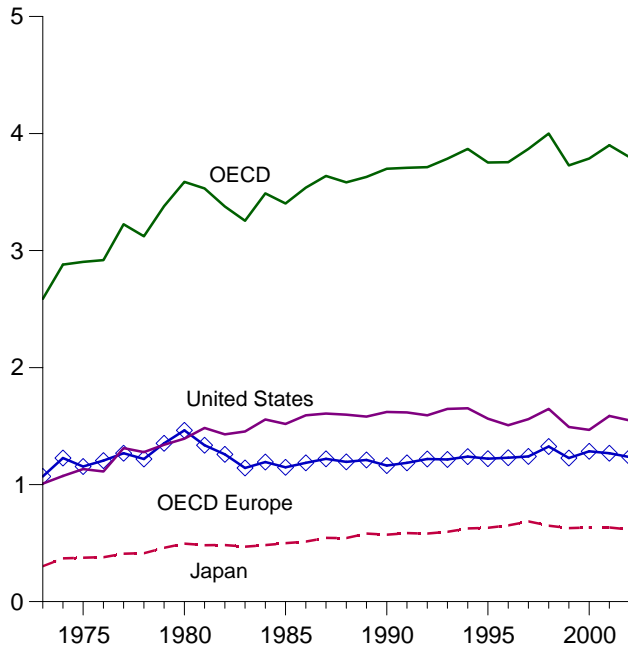
• U.S. geographic coverage is the 50 States and the District of Columbia.

Web Page: <http://www.eia.doe.gov/emeu/mer/inter.html>.

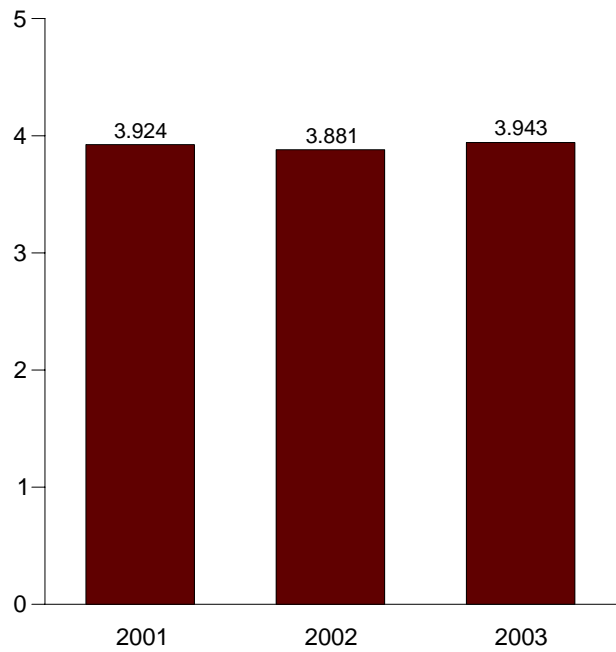
Sources: • **United States:** Table 3.1a. • **All Other Data:** 1973-1979—International Energy Agency (IEA), *Annual Oil and Gas Statistics of OECD Countries*. 1980 forward—IEA, quarterly and monthly computer tapes supporting *Quarterly Oil Statistics and Energy Balances*.

Figure 11.3 Petroleum Stocks in OECD Countries
(Billion Barrels)

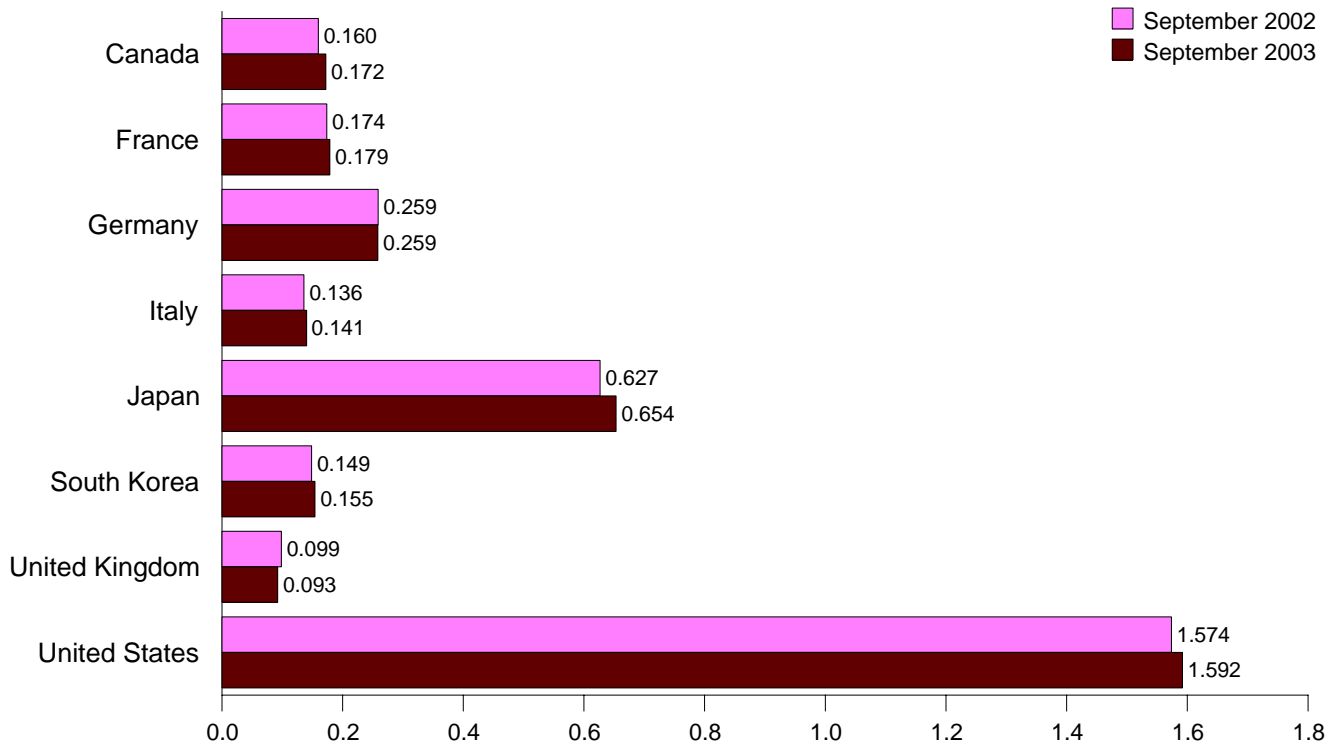
Overview, End of Year, 1973-2002



OECD Stocks, End of Month, September



By Selected OECD Country



Notes: • OECD is the Organization for Economic Cooperation and Development.
• Because vertical scales differ, graphs should not be compared.

Web Page: <http://www.eia.doe.gov/emeu/mer/inter.html>.
Source: Table 11.3.

Table 11.3 Petroleum Stocks in OECD Countries
(Million Barrels)

	Canada	France	Germany ^a	Italy	Japan	South Korea ^b	United Kingdom	United States	OECD Europe ^c	Other OECD ^d	OECD ^e
1973 Year	140	201	181	152	303	NA	156	1,008	1,070	67	2,588
1974 Year	145	249	213	167	370	NA	191	1,074	1,227	64	2,880
1975 Year	174	225	187	143	375	NA	165	1,133	1,154	67	2,903
1976 Year	153	234	208	143	380	NA	165	1,112	1,205	68	2,918
1977 Year	167	239	225	161	409	NA	148	1,312	1,268	68	3,224
1978 Year	144	201	238	154	413	NA	157	1,278	1,219	68	3,122
1979 Year	150	226	272	163	460	NA	169	1,341	1,353	75	3,379
1980 Year	164	243	319	170	495	NA	168	1,392	1,464	72	3,587
1981 Year	161	214	297	167	482	NA	143	1,484	1,337	67	3,531
1982 Year	136	193	272	179	484	NA	125	1,430	1,258	68	3,376
1983 Year	121	153	249	149	470	NA	118	1,454	1,142	68	3,255
1984 Year	129	153	280	158	483	NA	129	1,556	1,193	112	3,488
1985 Year	112	139	277	156	500	NA	131	1,519	1,148	110	3,402
1986 Year	111	127	295	154	514	NA	133	1,593	1,186	113	3,538
1987 Year	128	127	304	168	545	NA	133	1,607	1,221	115	3,637
1988 Year	119	140	303	155	543	NA	126	1,597	1,194	114	3,583
1989 Year	118	138	310	162	582	NA	131	1,581	1,211	114	3,629
1990 Year	143	143	265	143	572	NA	103	1,621	1,163	117	3,700
1991 Year	140	161	288	134	586	NA	109	1,617	1,185	113	3,707
1992 Year	127	157	311	149	582	NA	104	1,592	1,219	115	3,712
1993 Year	128	153	310	139	597	NA	109	1,647	1,215	115	3,785
1994 Year	142	153	314	143	625	NA	109	1,653	1,239	114	3,869
1995 Year	132	155	302	141	631	NA	101	1,563	1,222	113	3,753
1996 Year	127	154	303	135	651	NA	103	1,507	1,229	118	3,756
1997 Year	144	161	299	147	685	124	100	1,560	1,241	115	3,869
1998 Year	139	161	323	135	649	129	104	1,647	1,325	111	4,000
1999 Year	142	160	290	130	629	132	101	1,493	1,228	105	3,728
2000 Year	144	170	272	140	634	140	100	1,468	1,285	117	3,787
2001 January	145	164	275	146	628	131	97	1,479	1,270	116	R 3,769
February	143	167	278	142	620	140	99	1,473	1,268	118	3,763
March	149	167	270	140	636	134	102	1,484	1,270	115	3,788
April	149	167	271	142	646	138	100	1,522	1,262	107	3,824
May	152	167	269	138	648	132	100	1,555	1,259	109	3,855
June	148	167	262	131	642	137	104	1,563	1,256	113	3,859
July	156	160	261	131	636	142	104	1,568	1,254	112	R 3,868
August	156	165	258	138	647	143	100	1,548	1,260	116	3,870
September	162	163	255	135	654	144	98	1,579	1,263	122	3,924
October	161	166	258	133	670	149	107	1,577	1,260	119	3,936
November	160	162	259	135	656	152	107	1,588	1,252	114	3,921
December	157	165	273	134	634	143	109	1,586	1,268	112	3,900
2002 January	156	164	277	140	631	142	110	1,591	1,300	114	3,934
February	160	167	276	138	620	137	105	1,576	1,305	116	R 3,912
March	158	163	276	132	630	144	102	1,573	1,280	110	3,896
April	159	164	276	133	624	140	104	1,588	1,272	114	3,896
May	155	173	274	136	626	144	100	1,611	1,284	110	3,929
June	155	170	269	132	634	154	110	1,616	1,287	112	3,958
July	157	169	264	137	633	153	108	1,611	1,276	111	R 3,941
August	159	171	264	142	633	152	101	1,596	1,274	123	R 3,937
September	160	174	259	136	627	149	99	1,574	1,256	115	3,881
October	159	176	254	140	628	150	106	1,573	1,276	111	3,897
November	157	170	253	143	616	149	106	1,578	1,253	114	R 3,866
December	154	175	253	138	615	140	97	1,548	1,235	105	3,798
2003 January	152	170	258	140	618	140	99	1,504	1,237	107	3,758
February	150	162	253	128	614	140	98	1,460	1,208	110	R 3,682
March	149	175	259	136	619	137	100	1,473	1,259	115	3,753
April	157	174	258	139	619	141	100	1,495	1,263	104	3,780
May	159	180	259	137	632	142	101	1,530	1,255	110	R 3,827
June	R 161	173	261	135	647	152	96	1,558	1,252	107	R 3,877
July	R 164	174	262	136	650	158	99	1,567	R 1,261	103	R 3,903
August	R 169	184	268	140	651	150	95	1,569	R 1,285	101	R 3,925
September	172	179	259	141	654	155	93	1,592	1,267	103	3,943

^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 Beginning in January 2002, data include previously confidential South Korean government-controlled oil stocks.

^c "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, and, for 1997 forward, Czech Republic, Hungary, and Poland.

^d "Other OECD" consists of Australia, New Zealand, and the U.S. Territories, and, for 1997 forward, Mexico.

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

R=Revised. NA=Not available.

Notes: • Stocks are at end of period. • 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 1996 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.

Web Page: <http://www.eia.doe.gov/emeu/mer/inter.html>.

Sources: • **United States:** Table 3.1a. • **All Other Data:** International Energy Agency, quarterly and monthly computer tapes supporting *Quarterly Oil Statistics and Energy Balances*.

International Petroleum

Tables 11.1a and 11.1b Sources

United States: See Table 3.1a.

All Other Countries: Monthly Data

2001 forward: Energy Information Administration (EIA), *International Petroleum Monthly*.

All Other Countries: Annual Data

1973–1979: Energy Information Administration (EIA), *International Energy Annual 1981*, Table 8.

1980–2001: Office of Energy Markets and End Use, International Energy Database, February 2003.

2002: Average of monthly data.

World: Monthly Data

2001 forward: EIA, *International Petroleum Monthly*, sum of all countries' monthly data.

World: Annual Data

1973–1979: EIA, *International Energy Annual 1981*, Table 8.

1980–2001: Office of Energy Markets and End Use, International Energy Database, February 2003.

2002: Average of monthly data.

Appendix A. Thermal Conversion Factors

The thermal conversion factors presented in the following 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 has a heat content of approximately 66.36 million Btu (10 barrels x 6.636 million Btu per barrel = 66.36 million Btu).

The heat content rates (i.e., thermal conversion factors) provided in this section represent the gross (or upper) energy content of the fuels. Gross heat content rates are applied in all Btu calculations for the *Monthly Energy Review* and are commonly used in energy calculations in the United States; net (or lower) heat content rates are typically used in European energy calculations. The difference between the two rates is the amount of energy that is consumed to vaporize water that is created during the combustion process. Generally, the difference ranges from 2 percent to 10 percent, depending on the specific fuel and its hydrogen content. Some fuels, such as unseasoned wood, can be more than 40 percent different in their gross

and net heat content rates. See **British Thermal Unit (Btu)** in the Glossary for more information.

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 the thermal conversion factor for propane.

In general, the annual thermal conversion factors presented in Tables A2 through A6 are computed from final annual data or from the best available data and labeled “preliminary.” Often, the previous year’s factor is used as a preliminary value until data become available to calculate the factor appropriate to the year. The source of each factor is described in the section entitled “Thermal Conversion Factor Source Documentation,” which follows Table A6 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	Natural Gasoline and Isopentane	4.620
Aviation Gasoline	5.048	Pentanes Plus	4.620
Butane	4.326	Petrochemical Feedstocks	
Butane-Propane Mixture ^a	4.130	Naptha Less Than 401°F	5.248
Distillate Fuel Oil	5.825	Other Oils Equal to or Greater Than 401°F	5.825
Ethane	3.082	Still Gas	6.000
Ethane-Propane Mixture ^b	3.308	Petroleum Coke	6.024
Isobutane	3.974	Plant Condensate	5.418
Jet Fuel, Kerosene Type	5.670	Propane	3.836
Jet Fuel, Naptha Type	5.355	Residual Fuel Oil	6.287
Kerosene	5.670	Road Oil	6.636
Lubricants	6.065	Special Naphthas	5.248
Motor Gasoline		Still Gas	6.000
Conventional ^c	5.253	Unfinished Oils	5.825
Reformulated ^c	5.150	Unfractionated Stream	5.418
Oxygenated ^c	5.150	Waxes	5.537
Fuel Ethanol ^d	3.539	Miscellaneous	5.796

^a 60 percent butane and 40 percent propane

^b 70 percent ethane and 30 percent propane

^c See Table A3 for motor gasoline annual weighted averages beginning in 1994.

^d Fuel ethanol, which is derived from agricultural feedstocks (primarily corn), is not a petroleum product but is blended into motor gasoline. Its gross heat content (3.539 million Btu per barrel) is used in *Monthly Energy Review* calculations; its net heat content (3.192 million Btu per barrel) is used in the Energy Information Administration’s *Renewable Energy Annual* calculations.

Web Page: <http://www.eia.doe.gov/emeu/mer/append.html>.

Source: See “Thermal Conversion Factor Source Documentation,” which follows Table A6.

Table A2. Approximate Heat Content of Petroleum Production, Imports, and Exports
(Million Btu per Barrel)

	Production		Imports			Exports		
	Crude Oil	Natural Gas Plant Liquids	Crude Oil	Petroleum Products	Total	Crude Oil	Petroleum Products	Total
1973	5.800	4.049	5.817	5.983	5.897	5.800	5.752	5.752
1974	5.800	4.011	5.827	5.959	5.884	5.800	5.773	5.774
1975	5.800	3.984	5.821	5.935	5.858	5.800	5.747	5.748
1976	5.800	3.964	5.808	5.980	5.856	5.800	5.743	5.745
1977	5.800	3.941	5.810	5.908	5.834	5.800	5.796	5.797
1978	5.800	3.925	5.802	5.955	5.839	5.800	5.814	5.808
1979	5.800	3.955	5.810	5.811	5.810	5.800	5.864	5.832
1980	5.800	3.914	5.812	5.748	5.796	5.800	5.841	5.820
1981	5.800	3.930	5.818	5.659	5.775	5.800	5.837	5.821
1982	5.800	3.872	5.826	5.664	5.775	5.800	5.829	5.820
1983	5.800	3.839	5.825	5.677	5.774	5.800	5.800	5.800
1984	5.800	3.812	5.823	5.613	5.745	5.800	5.867	5.850
1985	5.800	3.815	5.832	5.572	5.736	5.800	5.819	5.814
1986	5.800	3.797	5.903	5.624	5.808	5.800	5.839	5.832
1987	5.800	3.804	5.901	5.599	5.820	5.800	5.860	5.858
1988	5.800	3.800	5.900	5.618	5.820	5.800	5.842	5.840
1989	5.800	3.826	5.906	5.641	5.833	5.800	5.869	5.857
1990	5.800	3.822	5.934	5.614	5.849	5.800	5.838	5.833
1991	5.800	3.807	5.948	5.636	5.873	5.800	5.827	5.823
1992	5.800	3.804	5.953	5.623	5.877	5.800	5.774	5.777
1993	5.800	3.801	5.954	5.620	5.883	5.800	5.777	5.779
1994	5.800	3.794	5.950	5.534	5.861	5.800	5.777	5.779
1995	5.800	3.796	5.938	5.483	5.855	5.800	5.740	5.746
1996	5.800	3.777	5.947	5.468	5.847	5.800	5.728	5.736
1997	5.800	3.762	5.954	5.469	5.862	5.800	5.726	5.734
1998	5.800	3.769	5.953	5.462	5.861	5.800	5.710	5.720
1999	5.800	3.744	5.942	5.421	5.840	5.800	5.684	5.699
2000	5.800	3.733	5.959	5.432	5.849	5.800	5.651	5.658
2001	5.800	3.735	5.976	5.443	5.862	5.800	5.751	5.752
2002	5.800	3.729	5.971	5.451	5.863	5.800	5.687	5.688
2003 ^E	5.800	3.729	5.971	5.451	5.863	5.800	5.687	5.688

E=Estimate.

Note: Crude oil includes lease condensate.

Web Page: <http://www.eia.doe.gov/emeu/mer/append.html>.

Source: See "Thermal Conversion Factor Source Documentation," which follows Table A6.

Table A3. Approximate Heat Content of Petroleum Consumption
(Million Btu per Barrel)

	Total Petroleum ^a						Liquefied Petroleum Gases	Motor Gasoline
	End-Use Sectors				Electric Power Sector ^b	Total		
	Residential	Commercial	Industrial	Transportation				
1973	5.205	5.749	5.568	5.395	6.245	5.515	3.746	5.253
1974	5.196	5.740	5.538	5.394	6.238	5.504	3.730	5.253
1975	5.192	5.704	5.528	5.392	6.250	5.494	3.715	5.253
1976	5.215	5.726	5.538	5.395	6.251	5.504	3.711	5.253
1977	5.213	5.733	5.555	5.400	6.249	5.518	3.677	5.253
1978	5.213	5.716	5.553	5.404	6.251	5.519	3.669	5.253
1979	5.298	5.769	5.418	5.428	6.258	5.494	3.680	5.253
1980	5.245	5.803	5.376	5.440	6.254	5.479	3.674	5.253
1981	5.191	5.751	5.313	5.432	6.258	5.448	3.643	5.253
1982	5.167	5.751	5.263	5.422	6.258	5.415	3.615	5.253
1983	5.022	5.642	5.273	5.415	6.255	5.406	3.614	5.253
1984	5.129	5.700	5.223	5.422	6.251	5.395	3.599	5.253
1985	5.115	5.660	5.221	5.423	6.247	5.387	3.603	5.253
1986	5.130	5.691	5.286	5.427	6.257	5.418	3.640	5.253
1987	5.095	5.659	5.253	5.430	6.249	5.403	3.659	5.253
1988	5.118	5.657	5.248	5.434	6.250	5.410	3.652	5.253
1989	5.057	5.619	5.234	5.440	6.240	5.410	3.683	5.253
1990	4.950	5.617	5.272	5.444	6.244	5.411	3.625	5.253
1991	4.912	5.590	5.190	5.442	6.246	5.384	3.614	5.253
1992	4.942	5.577	5.188	5.445	6.238	5.378	3.624	5.253
1993	4.942	5.571	5.195	5.438	6.230	5.379	3.606	5.253
1994	4.936	5.580	5.165	5.426	6.213	5.361	3.635	5.230
1995	4.925	5.546	5.133	5.419	6.188	5.341	3.623	5.215
1996	4.869	5.494	5.129	5.421	6.195	5.336	3.613	5.216
1997	4.870	5.459	5.133	5.417	6.199	5.336	3.616	5.213
1998	4.842	5.440	5.149	5.414	6.210	5.349	3.614	5.212
1999	4.749	5.349	5.105	5.415	6.205	5.328	3.616	5.211
2000	4.754	5.388	5.072	5.423	6.189	5.326	3.607	5.210
2001	4.824	5.422	5.120	5.421	6.195	5.345	3.614	5.210
2002 ^E	4.824	5.422	5.120	5.421	6.195	5.324	3.612	5.208
2003 ^E	4.824	5.422	5.120	5.421	6.195	5.324	3.612	5.208

^a Petroleum products supplied, including natural gas plant liquids and crude oil burned directly as fuel.

^b The electric power sector comprises electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public.

^c There is a discontinuity in this time series between 1993 and 1994; beginning in 1994, the single constant factor is replaced by a factor that is a quantity-weighted average of motor gasoline's major components. See Table A1.

E=Estimate.

Note: Weighted averages of the products included in each category are calculated by using heat content values shown in Table A1.

Web Page: <http://www.eia.doe.gov/emeu/mer/append.html>.

Source: See "Thermal Conversion Factor Source Documentation," which follows Table A6.

Table A4. Approximate Heat Content of Natural Gas
(Btu per Cubic Foot)

	Production		Consumption			Imports	Exports
	Marketed	Dry	End-Use Sectors	Electric Power Sector ^a	Total		
1973	1,093	1,021	1,020	1,024	1,021	1,026	1,023
1974	1,097	1,024	1,024	1,022	1,024	1,027	1,016
1975	1,095	1,021	1,020	1,026	1,021	1,026	1,014
1976	1,093	1,020	1,019	1,023	1,020	1,025	1,013
1977	1,093	1,021	1,019	1,029	1,021	1,026	1,013
1978	1,088	1,019	1,016	1,034	1,019	1,030	1,013
1979	1,092	1,021	1,018	1,035	1,021	1,037	1,013
1980	1,098	1,026	1,024	1,035	1,026	1,022	1,013
1981	1,103	1,027	1,025	1,035	1,027	1,014	1,011
1982	1,107	1,028	1,026	1,036	1,028	1,018	1,011
1983	1,115	1,031	1,031	1,030	1,031	1,024	1,010
1984	1,109	1,031	1,030	1,035	1,031	1,005	1,010
1985	1,112	1,032	1,031	1,038	1,032	1,002	1,011
1986	1,110	1,030	1,029	1,034	1,030	997	1,008
1987	1,112	1,031	1,031	1,032	1,031	999	1,011
1988	1,109	1,029	1,029	1,028	1,029	1,002	1,018
1989	1,107	1,031	1,031	1,028	1,031	1,004	1,019
1990	1,105	1,029	1,030	1,027	1,029	1,012	1,018
1991	1,108	1,030	1,031	1,025	1,030	1,014	1,022
1992	1,110	1,030	1,031	1,025	1,030	1,011	1,018
1993	1,106	1,027	1,028	1,025	1,027	1,020	1,016
1994	1,105	1,028	1,029	1,025	1,028	1,022	1,011
1995	1,106	1,026	1,027	1,021	1,026	1,021	1,011
1996	1,109	1,026	1,027	1,020	1,026	1,022	1,011
1997	1,107	1,026	1,027	1,020	1,026	1,023	1,011
1998	1,109	1,031	1,033	1,024	1,031	1,023	1,011
1999	1,107	1,027	1,028	1,022	1,027	1,022	1,006
2000	1,107	1,025	1,026	1,021	1,025	1,023	1,006
2001	1,105	1,028	1,029	1,025	1,028	1,023	1,010
2002 ^E	1,105	1,027	1,029	1,020	1,027	1,023	1,010
2003 ^E	1,105	1,027	1,029	1,020	1,027	1,023	1,010

^a The electric power sector comprises electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public.

Web Page: <http://www.eia.doe.gov/emeu/mer/append.html>.

Source: See "Thermal Conversion Factor Source Documentation," which follows Table A6.

Table A5. Approximate Heat Content of Coal and Coal Coke
(Million Btu per Short Ton)

	Coal								Coal Coke	
	Production	Consumption				Electric Power Sector ^b	Total	Imports	Exports	Imports and Exports
		End-Use Sectors		Coke Plants	Other ^a					
		Residential and Commercial	Industrial							
1973	23.376	22.831	26.780	22.586	22.246	23.057	25.000	26.596	24.800	
1974	23.072	22.479	26.778	22.419	21.781	22.677	25.000	26.700	24.800	
1975	22.897	22.261	26.782	22.436	21.642	22.506	25.000	26.562	24.800	
1976	22.855	22.774	26.781	22.530	21.679	22.498	25.000	26.601	24.800	
1977	22.597	22.919	26.787	22.322	21.508	22.265	25.000	26.548	24.800	
1978	22.248	22.466	26.789	22.207	21.275	22.017	25.000	26.478	24.800	
1979	22.454	22.242	26.788	22.452	21.364	22.100	25.000	26.548	24.800	
1980	22.415	22.543	26.790	22.690	21.295	21.947	25.000	26.384	24.800	
1981	22.308	22.474	26.794	22.585	21.085	21.713	25.000	26.160	24.800	
1982	22.239	22.695	26.797	22.712	21.194	21.674	25.000	26.223	24.800	
1983	22.052	22.775	26.798	22.691	21.133	21.576	25.000	26.291	24.800	
1984	22.010	22.844	26.799	22.543	21.101	21.573	25.000	26.402	24.800	
1985	21.870	22.646	26.798	22.020	20.959	21.366	25.000	26.307	24.800	
1986	21.913	22.947	26.798	22.198	21.084	21.462	25.000	26.292	24.800	
1987	21.922	23.404	26.799	22.381	21.136	21.517	25.000	26.291	24.800	
1988	21.823	23.571	26.799	22.360	20.900	21.328	25.000	26.299	24.800	
1989	21.765	23.650	26.800	22.347	20.898	21.307	25.000	26.160	24.800	
1990	21.822	23.137	26.799	22.457	20.779	21.197	25.000	26.202	24.800	
1991	21.681	23.114	26.799	22.460	20.730	21.120	25.000	26.188	24.800	
1992	21.682	23.105	26.799	22.250	20.709	21.068	25.000	26.161	24.800	
1993	21.418	22.994	26.800	22.123	20.677	21.010	25.000	26.335	24.800	
1994	21.394	23.112	26.800	22.068	20.589	20.929	25.000	26.329	24.800	
1995	21.326	23.118	26.800	21.950	20.543	20.880	25.000	26.180	24.800	
1996	21.322	23.011	26.800	22.105	20.547	20.870	25.000	26.174	24.800	
1997	21.296	22.494	26.800	22.172	20.518	20.830	25.000	26.251	24.800	
1998	21.418	21.620	27.426	23.164	20.516	20.881	25.000	26.800	24.800	
1999	21.070	23.880	27.426	22.489	20.490	20.818	25.000	26.081	24.800	
2000	21.072	25.020	27.426	22.433	20.511	20.828	25.000	26.117	24.800	
2001	20.443	24.905	27.426	23.209	20.279	20.655	25.000	25.998	24.800	
2002 ^P	20.620	24.836	27.426	23.361	20.479	20.814	25.000	26.062	24.800	
2003 ^E	20.620	24.836	27.426	23.361	20.479	20.814	25.000	26.062	24.800	

^a Includes transportation.

^b The electric power sector comprises electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public.

P=Preliminary. E=Estimate.

Web Page: <http://www.eia.doe.gov/emeu/mer/append.html>.

Source: See "Thermal Conversion Factor Source Documentation," which follows Table A6.

Table A6. Approximate Heat Rates for Electricity
(Btu per Kilowatthour)

	Electricity Net Generation			Electricity Consumption ^e
	Fossil-Fueled Steam-Electric Plants ^{a,b}	Nuclear Steam-Electric Plants ^c	Geothermal Energy Plants ^d	
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	10,622	21,263	3,412
1986	10,446	10,579	21,263	3,412
1987	10,419	10,442	21,263	3,412
1988	10,324	10,602	21,096	3,412
1989	10,432	10,583	21,096	3,412
1990	10,402	10,582	21,096	3,412
1991	10,436	10,484	20,997	3,412
1992	10,342	10,471	20,914	3,412
1993	10,309	10,504	20,914	3,412
1994	10,316	10,452	20,914	3,412
1995	10,312	10,507	20,914	3,412
1996	10,340	10,503	20,960	3,412
1997	10,213	10,494	20,960	3,412
1998	10,197	10,491	21,017	3,412
1999	10,226	10,450	21,017	3,412
2000	10,201	10,429	21,017	3,412
2001	^b 10,146	10,442	21,017	3,412
2002 ^P	10,119	10,442	21,017	3,412
2003 ^E	10,119	10,442	21,017	3,412

^a Through 1988, used as the thermal conversion factor for wood, waste, hydroelectric, solar, and wind electricity net generation. Beginning in 1989, used as the thermal conversion factor for hydroelectric, solar, and wind electricity net generation.

^b Through 2000, heat rates are for electric utilities only. Beginning in 2001, heat rates are for the electric power sector, which comprises electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public.

^c Used as the thermal conversion factor for nuclear electricity net generation.

^d Used as the thermal conversion factor for geothermal electricity net generation.

^e Used as the thermal conversion factor for electricity retail sales, and electricity imports and exports.

P=Preliminary. E=Estimate.

Web Page: <http://www.eia.doe.gov/emeu/mer/append.html>.

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 through 1996, by determining the average American Petroleum Institute (API) gravity of crude imported from each foreign country from Form ERA-60 in 1977, or for 1997 and later, by determining the weighted average API gravity from the Form EIA-814, 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**.

Fuel Ethanol Blended into Motor Gasoline. EIA adopted the thermal conversion factor of 3.539 million Btu per barrel published in “Oxygenate Flexibility for Future Fuels,” a paper presented by William J. Piel of the ARCO Chemical Company at the National Conference on Reformulated Gasolines and Clean Air Act Implementation, Washington, D.C., October 1991.

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. 1973 forward: Calculated annually by EIA as a weighted average by multiplying the quantity consumed of each of the component products by each product’s conversion factor, listed in this appendix, and dividing the sum of those heat contents by the sum of the quantities consumed. The component products are ethane (including ethylene), propane (including propylene), normal butane (including butylene), butane-propane mixtures, ethane-propane mixtures, and isobutane. Quantities consumed are from: 1973 through 1980: EIA, Energy Data Reports, *Petroleum Statement, Annual*, Table 1. 1981 forward: EIA, *Petroleum Supply Annual*, Table 2.

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. 1973 through 1993: EIA adopted the Bureau of Mines thermal conversion factor of 5.253 million Btu per barrel for “Gasoline, Motor Fuel” 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. 1994 forward: EIA calculated national quantity-weighted average conversion factors for conventional, reformulated, and oxygenated motor gasolines (shown in appendix Table A1). The factor for conventional motor gasoline is 5.253 million Btu per barrel, as used for previous years. The factors for reformulated and oxygenated gasolines, both currently 5.150 million Btu per barrel, are based on data published in the Environmental Protection Agency, Office of Mobile Sources, National Vehicle and Fuel Emissions Laboratory report EPA 420-F-95-003, Fuel Economy Impact Analysis of Reformulated Gasoline.

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 million 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 the Electric Power Sector. Calculated annually by EIA as the average of the thermal conversion factors for all petroleum products consumed by the electric power sector, weighted by the quantity of each petroleum product consumed at by the electric power sector.

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.

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.

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.

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 Oils. 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 the Electric Power Sector. Calculated annually by EIA by dividing the total heat content of natural gas consumed by the electric power sector by the total quantity received by the electric power sector.

Natural Gas, Consumption by the End-Use Sectors. Calculated annually by EIA by dividing the heat content of all natural gas consumed less the heat content of natural gas consumed by the electric power sector by the quantity of all natural gas consumed less the quantity of natural gas consumed by the electric power sector.

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

Coal, Total Consumption. Calculated annually by EIA by dividing the sum of the heat content of coal (including waste coal) consumption by the total tonnage.

Coal, Consumption by the Electric Power Sector. Calculated annually by dividing the total heat content of coal (including waste coal) by total consumption tonnage of the electric power sector.

Coal, Consumption by End-Use Sectors. Calculated annually by EIA by dividing the sum of the heat content of coal (including waste coal) consumed by the end-use sectors by the sum of the total tonnage.

Coal, Exports. Calculated annually by EIA by dividing the sum of the heat content of coal exported by the sum of the total tonnage.

Coal, Imports. Calculated annually by EIA by dividing the sum of the heat content of coal imported by the sum of the total tonnage.

Coal, Production. Calculated annually by EIA by dividing the sum of the total heat content of coal (including some anthracite culm and, for 2001 forward, bituminous refuse) produced by the sum of the total tonnage.

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 used data from Form EIA-767, "Steam-Electric Plant Operation and Design Report," 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 kilowatt-hour of electricity produced, regardless of the generation process, is 3,412 Btu. 1973-1988: The weighted annual average heat rate for fossil-fueled steam-electric power plants in the United States, as published in EIA, *Electric Plant Cost and Power Production Expenses 1991*, Table 9. 1989 forward: Calculated annually by EIA by using the heat rate reported on Form EIA-860, "Annual Electric Generator Report" (and predecessor forms EIA-860A, EIA-860B, and EIA-867), and the generation on Form EIA-906, "Power Plant Report" (and predecessor forms).

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, "Annual Report of Major Electric Utilities, Licenses, and Others"; Form EIA-412, "Annual Report of Public Electric Utilities"; and predecessor forms. The factors for 1982 through 1984 were published in the following EIA reports-1982: *Historical Plant Cost and Annual Production Expenses for Selected Electric Plants 1982*, page 215. 1983 and 1984: *Electric Plant Cost and Power Production Expenses 1991*, Table 13. 1985 forward: Calculated annually by EIA by using the heat rate reported on Form EIA-860, "Annual Electric Generator Report," and the generation reported on Form EIA-906, "Power Plant Report" (and predecessor forms).

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	.453 592 37 ^a	=	kilograms (kg)
	pounds uranium oxide (lb U ₃ O 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 (°F)	x	5/9 (after subtracting 32) ^{a,c}	=	degrees Celsius (°C)
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)

^aExact conversion.

^bCalculated by the Energy Information Administration.

^cTo convert degrees Celsius (°C) to degrees Fahrenheit (°F) exactly, multiply by 9/5, then add 32.

^dThe 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.

Web Page: <http://www.eia.doe.gov/emeu/mer/append.html>.

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
1,0 ¹²	tera	T	10 ⁻¹²	pico	p
1,0 ¹⁵	peta	P	10 ⁻¹⁵	femto	f
1,0 ¹⁸	exa	E	10 ⁻¹⁸	atto	a
1,0 ²¹	zetta	Z	10 ⁻²¹	zepto	z
1,0 ²⁴	yotta	Y	10 ⁻²⁴	yocto	y

Web Page: <http://www.eia.doe.gov/emeu/mer/append.html>.

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	<i>multiplied by</i>	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	ords (cd)	x	1.25 ^b	=	shorts tons
	ords (cd)	x	128 ^a	=	cubic feet (ft ³)

^aExact conversion.

^bCalculated by the Energy Information Administration.

Web Page: <http://www.eia.doe.gov/emeu/mer/append.html>.

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. List of Energy Plugs

Energy Plugs are synopses of products that have been released recently by the Energy Information Administration. They appear on a regular basis at the front of the *Monthly Energy Review*. Following is a list of the Energy Plug titles that have been published over the past few years. For a

complete list of all features that have appeared in the *Monthly Energy Review* since the first article was published in March 1975, go the Energy Plug web site at: <http://www.eia.doe.gov/emeu/plugs/plugsrgt.html>.

Title	Cover Date
2003	
<i>Annual Energy Outlook 2003</i>	January 2003
<i>Performance Profiles of Major Energy Producers 2001</i>	February 2003
<i>Voluntary Reporting of Greenhouse Gases 2001</i>	March 2003
<i>Electric Power Annual 2001</i>	April 2003
<i>International Energy Outlook 2003</i>	May 2003
<i>Uranium Industry Annual 2002</i>	June 2003
<i>Residential Energy Consumption Special Topics</i>	July 2003
<i>New Reactor Designs</i>	August 2003
<i>Foreign Direct Investment in U.S. Energy in 2001</i>	September 2003
<i>Annual Energy Review 2002</i>	October 2003
<i>Annual Coal Report 2002</i>	November 2003
<i>Renewable Energy Annual 2002</i>	December 2003
2002	
<i>Performance Profiles of Major Energy Producers 2000</i>	January 2002
<i>Voluntary Reporting of Greenhouse Gases 2000</i>	February 2002
<i>Analysis of Corporate Average Fuel Economy Standards for Light Trucks and Increased Alternative Fuel Use</i>	March 2002
<i>Summer 2002 Motor Gasoline Outlook</i>	April 2002
<i>International Energy Outlook 2002</i>	April 2002
<i>Weekly Natural Gas Storage Report</i>	May 2002
<i>International Energy Annual 2000</i>	May 2002
<i>Delivered Energy Consumption Projections by Industry</i>	June 2002
<i>Uranium Industry Annual 2001</i>	June 2002
<i>Biomass for Electricity Generation</i>	July 2002
<i>Measuring Changes in Energy Efficiency</i>	July 2002
<i>Foreign Direct Investment in U.S. Energy in 2000</i>	August 2002
<i>U.S. Natural Gas Markets: Relationship Between Henry Hub Spot Prices and U.S. Wellhead Prices</i>	August 2002
<i>Diesel Fuel Price Pass-through</i>	September 2002
<i>Winter Fuels Outlook: 2002-2003</i>	October 2002
<i>Annual Energy Review 2001</i>	November 2002
<i>Renewable Energy Annual 2001</i>	December 2002
2001	
<i>Energy Education Resources</i>	January 2001
<i>Impact of Interruptible Natural Gas Service on Northeast Heating Oil Demand</i>	February 2001
<i>Performance Profiles of Major Energy Producers 1999</i>	February 2001
<i>Renewable Energy 2000: Issues and Trends</i>	March 2001
<i>Summer 2001 Motor Gasoline Outlook</i>	April 2001
<i>International Energy Outlook 2001</i>	April 2001
<i>State Energy Data Report 1999: Consumption Estimates</i>	May 2001
<i>The Transition to Ultra-Low-Sulfur Diesel Fuel: Effects on Prices and Supply</i>	May 2001
<i>Energy Market Maps</i>	June 2001

2001 (Continued)

<i>Coal Industry Annual 1999</i>	July 2001
<i>Annual Energy Review 2000</i>	August 2001
<i>World Energy "Areas To Watch"</i>	August 2001
<i>Electric Power Annual 2000, Volume I</i>	September 2001
<i>Winter Fuels Outlook: 2001-2002</i>	October 2001
<i>Fuel Oil and Kerosene Sales 2000</i>	October 2001
<i>The Majors' Shift to Natural Gas</i>	October 2001
<i>Annual Energy Outlook 2002, Early Release</i>	November 2001
<i>Emissions of Greenhouse Gases in the United States 2000</i>	November 2001
<i>State Energy Price and Expenditure Report 1999</i>	November 2001
<i>Energy Education Resources</i>	December 2001
<i>U.S. Natural Gas Markets: Mid-Term Prospects for Natural Gas Supply</i>	December 2001

2000

<i>Inventory of Nonutility Electric Power Plants in the United States 1998</i>	January 2000
<i>The Changing Structure of the Electric Power Industry 1999: Mergers and Other Corporate Combinations</i>	January 2000
<i>International Energy Annual 1998</i>	February 2000
<i>Performance Profiles of Major Energy Producers 1998</i>	February 2000
<i>OPEC Revenues Fact Sheet</i>	March 2000
<i>Country Analysis Brief: Iran</i>	March 2000
<i>International Energy Outlook 2000</i>	April 2000
<i>Outlook for Biomass Ethanol Production and Demand</i>	April 2000
<i>Summer 2000 Motor Gasoline Outlook</i>	May 2000
<i>State Energy Price and Expenditure Report 1997</i>	June 2000
<i>Energy Consumption and Renewable Energy Development Potential on Indian Lands</i>	June 2000
<i>Annual Energy Review 1999</i>	July 2000
<i>A Primer on Gasoline Prices</i>	August 2000
<i>Long-Term World Oil Supply: A Resource Base/Production Path Analysis</i>	August 2000
<i>U.S. Carbon Dioxide Emissions From Energy Sources: 1999 Flash Estimate</i>	September 2000
<i>The Electric Transmission Network: A Multi-Region Analysis</i>	September 2000
<i>Propane Prices: What Consumers Should Know</i>	October 2000
<i>Winter Fuels Outlook: 2000-2001</i>	October 2000
<i>Advance Summary: U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves 1999 Annual Report</i>	October 2000
<i>Residential Natural Gas Prices: What Consumers Should Know</i>	November 2000
<i>The Changing Structure of the Electric Power Industry 2000: An Update</i>	November 2000
<i>Annual Energy Outlook 2001 Early Release</i>	December 2000
<i>Residential Heating Oil Prices: What Consumers Should Know</i>	December 2000

1999

<i>Performance Profiles of Major Energy Producers 1997</i>	January 1999
<i>State Energy Data Report 1996</i>	February 1999
<i>State Electricity Profiles</i>	March 1999
<i>International Energy Annual 1997</i>	April 1999
<i>International Energy Outlook 1999</i>	April 1999
<i>Natural Gas 1998: Issues and Trends</i>	May 1999
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Glossary

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 will be used for blending or compounding into finished aviation gasoline (e.g., straight run gasoline, alkylate, reformate, benzene, toluene, and xylene). Excludes oxygenates (alcohols, ethers), butane, and pentanes plus.

Aviation Gasoline, Finished: A complex mixture of relatively volatile hydrocarbons with or without small quantities of additives, blended to form a fuel suitable for use in aviation reciprocating engines. Fuel specifications are provided in ASTM Specification D 910 and Military Specification MIL-G-5572. *Note:* Data on blending components are not counted in data on finished aviation gasoline.

Barrel (Petroleum): A unit of volume equal to 42 U.S. gallons.

Base 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.

Black Liquor (Pulping Liquor): The alkaline spent liquor removed from the digesters in the process of chemically pulping wood. After evaporation, the liquor is burned as a fuel in a recovery furnace that permits the recovery of certain basic chemicals.

British Thermal Unit (Btu): The quantity of heat required to raise the temperature of 1 pound of liquid water by 1 degree Fahrenheit at the temperature at which water has its greatest density (approximately 39 degrees Fahrenheit). 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 (C₄H₁₀). 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° 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° F. It is extracted from natural gas or refinery gas streams.

Butylene: An olefinic hydrocarbon (C₄H₈) 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.

Chained Dollars: A measure used to express real prices. Real prices are those that have been adjusted to remove the effect of changes in the purchasing power of the dollar; they usually reflect buying power relative to a reference year. Prior to 1996, real prices were expressed in constant dollars, a measure based on the weights of goods and services in a single year, usually a recent year. In 1996, the U.S. Department of Commerce introduced the chained-dollar measure. The new measure is based on the average weights of goods and services in successive pairs of years. It is "chained" because the second year in each pair, with its weights, becomes the first year of the next pair. The advantage of using the chained-dollar measure is that it is more closely related to any given period and is therefore subject to less distortion over time.

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 readily combustible black or brownish-black rock whose composition, including inherent moisture, consists of more than 50 percent by weight and more than 70 percent by volume of carbonaceous material. It is formed from plant remains that have been compacted, hardened, chemically altered, and metamorphosed by heat and pressure over geologic time.

Coal Coke: See **Coke, Coal**.

Coal Stocks: Coal quantities that are held in storage for future use and disposition. *Note:* When coal data are collected for a particular reporting period (month, quarter,

or year), coal stocks are commonly measured as of the last day of the period.

Coke, Coal: A solid carbonaceous residue derived from low-ash, low-sulfur bituminous coal from which the volatile constituents are driven off by baking in an oven at temperatures as high as 2,000° F so that the fixed carbon and residual ash are fused together. Coke is used as a fuel and as a reducing agent in smelting iron ore in a blast furnace. Coke (coal) has a heating value of 24.8 million Btu per ton.

Coke, Petroleum: A residue high in carbon content and low in hydrogen that is the final product of thermal decomposition in the condensation process in cracking. This product is reported as marketable coke or catalyst coke. The conversion is 5 barrels (42 U.S. gallons each) per short ton. Coke (petroleum) has a heating value of 6.024 million Btu per barrel.

Coking Coal: Bituminous coal suitable for making coke. See **Coke, Coal**.

Combined-Heat-and-Power (CHP) Plant: A plant designed to produce both heat and electricity from a single heat source. Note: This term is being used in place of the term "cogenerator" that was used by EIA in the past. CHP better describes the facilities because some of the plants included do not produce heat and power in a sequential fashion and, as a result, do not meet the legal definition of cogeneration specified in the Public Utility Regulatory Policies Act (PURPA).

Commercial Sector: An energy-consuming sector that consists of service-providing facilities and equipment of: businesses; Federal, State, and local governments; and other private and public organizations, such as religious, social, or fraternal groups. The commercial sector includes institutional living quarters. It also includes sewage treatment facilities. Common uses of energy associated with this sector include space heating, water heating, air conditioning, lighting, refrigeration, cooking, and running a wide variety of other equipment. Note: This sector includes generators that produce electricity and/or useful thermal output primarily to support the activities of the above-mentioned commercial establishments.

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.

Constant Dollars: See **Chained Dollars**.

Conventional Gasoline: Finished motor gasoline not included in the oxygenated or reformulated gasoline categories. Note: This category excludes reformulated

gasoline blendstock for oxygenate blending (RBOB) as well as other blendstock.

Conventional Hydroelectric Power: Hydroelectric power generated from flowing water that is not created by **hydroelectric pumped storage**.

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. See **British Thermal Unit**.

Cost, Insurance, Freight (CIF): A sales transaction in which the seller pays for the transportation and insurance of the goods to the port of destination specified by the buyer.

Crude Oil: A mixture of hydrocarbons that exists in liquid phase in natural underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities. Depending upon the characteristics of the crude stream, it may also include: 1) small amounts of hydrocarbons that exist in gaseous phase in natural underground reservoirs but are liquid at atmospheric pressure after being recovered from oil well (casinghead) gas in lease separators and are subsequently commingled with the crude stream without being separately measured. Lease condensate recovered as a liquid from natural gas wells in lease or field separation facilities and later mixed into the crude stream is also included; 2) small amounts of nonhydrocarbons produced with the oil, such as sulfur and various metals; and 3) drip gases, and liquid hydrocarbons produced from tar sands, gilsonite, and oil shale.

Liquids produced at natural gas processing plants are excluded. Crude oil is refined to produce a wide array of petroleum products, including heating oils; gasoline, diesel and jet fuels; lubricants; asphalt; ethane, propane, and butane; and many other products used for their energy or chemical content.

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.

Crude 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.

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° 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): A measure of how warm a location is over a period of time relative to a base temperature, most commonly specified as 65 degrees Fahrenheit. The measure is computed for each day by subtracting the base temperature (65 degrees) from the average of the day's high and low temperatures, with negative values set equal to zero. Each day's cooling degree-days are summed to create a cooling degree-day measure for a specified reference period. Cooling degree-days are used in energy analysis as an indicator of air conditioning energy requirements or use.

Degree-Days, Heating (HDD): A measure of how cold a location is over a period of time relative to a base temperature, most commonly specified as 65 degrees Fahrenheit. The measure is computed for each day by subtracting the average of the day's high and low temperatures from the base temperature (65 degrees), with negative values set equal to zero. Each day's heating degree-days are summed to create a heating degree-day measure for a specified reference period. Heating degree-days are used in energy analysis as an indicator of space heating energy requirements or use.

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. It includes diesel fuels and fuel oils. Products known as No. 1, No. 2, and No. 4 diesel fuel are used in on-highway diesel engines, such as those in trucks and automobiles, as well as off-highway engines, such as those in railroad locomotives and agricultural machinery. Products known as No. 1, No. 2, and No. 4 fuel oils are used primarily for space heating 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: See **Natural Gas (Dry) Production**.

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

Electricity: A form of energy characterized by the presence and motion of elementary charged particles generated by friction, induction, or chemical change.

Electricity Generation: The process of producing electric energy, or the amount of electric energy produced by transforming other forms of energy, commonly expressed in **kilowatthours** (kWh) or **megawatthours** (Mwh).

Electricity Generation, Gross: The total amount of electric energy produced by generating units and

measured at the generating terminal in **kilowatthours** (kWh) or megawatthours (MWh).

Electricity Generation, Net: The amount of **gross electricity generation** less the electrical energy consumed at the generating station(s) for station service or auxiliaries. Note: Electricity required for pumping at **hydro-electric pumped-storage** plants is regarded as electricity for station service and is deducted from gross generation.

Electricity-Only Plant: A plant designed to produce electricity only. See also **Combined-Heat-and-Power (CHP) Plant**.

Electricity Retail Sales: The amount of electricity sold to customers purchasing electricity for their own use and not for resale.

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 Power Sector: An energy-consuming sector that consists of electricity-only and combined-heat-and-power (CHP) plants whose primary business is to sell electricity, or electricity and heat, to the public—i.e., North American Industry Classification System 22 plants. See also **Combined-Heat-and-Power (CHP) Plant, Electricity-Only Plant, Electric Utility, and Independent Power Producer**.

Electric Utility: A corporation, person, agency, authority, or other legal entity or instrumentality aligned with distribution facilities for delivery of electric energy for use primarily by the public. Included are investor-owned electric utilities, municipal and State utilities, Federal electric utilities, and rural electric cooperatives. A few entities that are tariff based and corporately aligned with companies that own distribution facilities are also included. Note: Due to the issuance of FERC Order 888 that required traditional electric utilities to functionally unbundle their generation, transmission, and distribution operations, "electric utility" currently has inconsistent interpretations from State to State.

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 Service Provider: An energy entity that provides service to a retail or end-use customer.

Energy-Use Sectors: A group of major energy-consuming components of U.S. society developed to measure and analyze energy use. The sectors most commonly referred to in EIA are: **residential, commercial, industrial, transportation, and electric power**.

Ethane: A normally gaseous straight-chain hydrocarbon (C₂H₆). 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.

Ethanol: An anhydrous denatured aliphatic alcohol intended for gasoline blending. See Oxygenates.

Ethylene: An olefinic hydrocarbon (C₂H₄) recovered from refinery processes or petrochemical processes.

Exploratory Well: A well drilled to find and produce oil or gas in an area previously considered an unproductive area, to find a new reservoir in a known field (i.e., one previously found to be producing oil or gas in another reservoir), or to extend the limit of a known oil or gas reservoir.

Exports: Shipments of goods from within the 50 States and the District of Columbia to U.S. possessions and territories or to foreign countries.

Extraction Loss: The reduction in volume of natural gas due to the removal of natural gas liquid constituents, such as ethane, propane, and butane, at natural gas processing plants.

Federal Energy Administration (FEA): A predecessor of the Energy Information Administration.

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. (Free on Board): A sales transaction in which the seller makes the product available for pick up at a specified port or terminal at a specified price and the buyer pays for the subsequent transportation and insurance.

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: An energy source formed in the Earth's crust from decayed organic material, such as **petroleum**, **coal**, and **natural gas**.

Fossil-Fueled 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.

Fuel Ethanol: An anhydrous, denatured aliphatic alcohol (C₂H₅OH) 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 containing alcohol (generally ethanol but sometimes methanol) at a concentration between 5.7 percent and 10 percent by volume. See **Motor Gasoline**, **Oxygenated**.

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: Hot water or steam extracted from geothermal reservoirs in the earth's crust and used for geothermal heat pumps, water heating, or electricity generation.

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.

GT/IC: Gas turbine and internal combustion plants.

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. It is 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.

Hydroelectric Pumped Storage: Hydroelectricity that is generated during peak load periods by using water

previously pumped into an elevated storage reservoir during off-peak periods when excess generating capacity is available to do so. When additional generating capacity is needed, the water can be released from the reservoir through a conduit to turbine generators located in a power plant at a lower level.

Imports: Receipts of goods into the 50 States and the District of Columbia from U.S. possessions and territories or from foreign countries.

Independent Power Producer: A corporation, person, agency, authority, or other legal entity or instrumentality that owns or operates facilities for the generation of electricity for use primarily by the public, and that is not an **electric utility**.

Industrial Sector: An energy-consuming sector that consists of all facilities and equipment used for producing, processing, or assembling goods. The industrial sector encompasses the following types of activity: manufacturing (NAICS (North American Industry Classification System) codes 31-33); agriculture, forestry, fishing and hunting (NAICS code 11); mining, including oil and gas extraction (NAICS code 21); natural gas distribution (NAICS code 2212); and construction (NAICS code 23). Overall energy use in this sector is largely for process heat and cooling and powering machinery, with lesser amounts used for facility heating, air conditioning, and lighting. Fossil fuels are also used as raw material inputs to manufactured products. *Note:* This sector includes generators that produce electricity and/or useful thermal output primarily to support the above-mentioned industrial activities.

Injections (Natural Gas): Natural gas injected into storage reservoirs.

Isobutane: A normally gaseous branch-chain hydrocarbon. It is a colorless paraffinic gas that boils at a temperature of 10.9° F. It is extracted from natural gas or refinery gas streams. See **Butane**.

Isobutylene: An olefinic hydrocarbon recovered from refinery processes or petrochemical processes.

Isopentane: A saturated branched-chain hydrocarbon obtained by fractionation of natural gasoline or isomerization of normal pentane.

Jet Fuel: A refined petroleum product used in jet aircraft engines. It includes kerosene-type jet fuel and naphtha-type jet fuel.

Jet Fuel, Kerosene-Type: A kerosene-based product with a maximum distillation temperature of 400° F at the 10-percent recovery point and a final maximum boiling point of 572° F. Fuel specifications are provided in ASTM Specification D 1655 and Military Specifications MIL-T-5624P and MIL-T-83133D (Grades JP-5 and JP-8). It is

used primarily for commercial turbojet and turboprop aircraft engines.

Jet Fuel, Naphtha-Type: A fuel in the heavy naphtha boiling range, with an average gravity of 52.8 degrees API, 20 to 90 percent distillation temperatures of 290° to 470° F and meeting Military Specification MIL-T-5624L (Grade JP-4). It is used by the military for turbojet and turboprop engines.

Kerosene: A petroleum distillate having 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.

Kilowatt: A unit of electrical power equal to 1,000 **watts**.

Kilowatthour (kWh): A measure of electricity defined as a unit of work or energy, measured as 1 **kilowatt** (1,000 **watts**) of power expended for 1 hour. One kilowatthour is equivalent to 3,412 Btu. See **Watthour**.

Landed Costs: The dollar-per-barrel price of crude oil at the port of discharge. Included are the charges associated with the purchase, transporting, and insuring of a cargo from the purchase point to the port of discharge. Not included are charges incurred at the discharge port (e.g., import tariffs or fees, wharfage charges, and demurrage charges).

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 mixture consisting primarily of pentanes and heavier hydrocarbons, which is recovered as a liquid from natural gas in lease or field separation facilities. *Note:* This category excludes natural gas liquids, such as butane and propane, which are recovered at natural gas processing plants or facilities.

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: The lowest rank of coal. Often referred to as brown coal, it is used almost exclusively as fuel for steam-electric power generation. It is brownish-black and has a high inherent moisture content, sometimes as high as 45 percent. The heat content of lignite ranges from 9 to 17 million Btu per ton on a moist, mineral-matter-free basis. The heat content of lignite consumed in the United States

averages 14 million Btu per ton, on the as-received basis (i.e., containing both inherent moisture and mineral matter).

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 (Natural Gas): 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.

Methane: A colorless, flammable, odorless, hydrocarbon gas (CH₄) that is the principal constituent of natural gas. It is also an important source of hydrogen in various industrial processes.

Methyl Tertiary Butyl Ether (MTBE): An ether, (CH₃)₃COCH₃, intended for motor gasoline blending. See **Oxygenates**.

Methanol: A light, volatile alcohol (CH₃OH) 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: Mechanical mixing of motor gasoline blending components and oxygenates as required, to produce finished motor gasoline. Finished motor gasoline may be further mixed with other motor gasoline blending components or oxygenates, resulting in increased volumes of finished motor gasoline and/or changes in the formulation of finished motor gasoline (e.g., conventional motor gasoline mixed with MTBE to produce oxygenated motor gasoline).

Motor Gasoline Blending Components: Naphtha (e.g., straight-run gasoline, alkylate, reformate, benzene, toluene, xylene) used for blending or compounding into finished motor gasoline. These components include reformulated gasoline blendstock (RBOB) but exclude oxygenates (alcohols, ethers), butane, and pentanes plus. Note: oxygenates are reported as individual components and are included in the total for other hydrocarbons, hydrogens, and oxygenates.

Motor Gasoline, Finished: A complex mixture of relatively volatile hydrocarbons with or without small quantities of additives, blended to form a fuel suitable for use in spark-ignition. Motor gasoline, as defined in ASTM Specification D-4814 or Federal Specification VV-G-1690C, is characterized as having a boiling range of 122°F to 158°F at the 10-percent recovery point to 365°F to 374°F at the 90-percent recovery point. "Motor gasoline" includes conventional gasoline, all types of oxygenated gasoline including gasohol, and reformulated gasoline, but excludes aviation gasoline. Note: Volumetric data on blending components, as well as oxygenates, are not counted in data on finished motor gasoline until the blending components are blended into the gasoline.

Motor Gasoline Grades: The classification of gasoline by octane ratings. Each type of gasoline (conventional, oxygenated, and reformulated) is classified by three grades: regular, midgrade, and premium. Note: Gasoline sales are reported by grade in accordance with their classification at the time of sale. In general, automotive octane requirements are lower at high altitudes. Therefore, in some areas of the United States, such as the Rocky Mountain States, the octane ratings for the gasoline grades may be 2 or more octane points lower.

Regular Gasoline: Gasoline having an antiknock index, i.e., octane rating, greater than or equal to 85 and less than 88. Note: Octane requirements may vary by altitude. See **Motor Gasoline Grades**.

Midgrade Gasoline: Gasoline having an antiknock index, i.e., octane rating, greater than or equal to 88 and less than or equal to 90. Note: Octane requirements may vary by altitude. See **Motor Gasoline Grades**.

Premium Gasoline: Gasoline having an antiknock index, i.e., octane rating, greater than 90. Note: Octane requirements may vary by altitude. See **Motor Gasoline Grades**.

Motor Gasoline, Oxygenated: Finished motor gasoline, other than reformulated gasoline, having an oxygen content of 2.7 percent or higher by weight and required by the U.S. Environmental Protection Agency (EPA) to be sold in areas designated by EPA as carbon monoxide (CO) nonattainment areas. Note: Oxygenated gasoline excludes oxygenated fuels program reformulated gasoline (OPRG) and reformulated gasoline blendstock for oxygenate blending (RBOB). Data on gasohol that has at least 2.7 percent oxygen, by weight, and is intended for sale inside CO nonattainment areas are included in data on oxygenated gasoline. Other data on gasohol are included in data on conventional gasoline.

Motor Gasoline, Reformulated: Finished motor gasoline formulated for use in motor vehicles, the composition and properties of which meet the requirements of the reformulated gasoline regulations promulgated by the U.S. Environmental Protection Agency under Section 211(k) of the Clean Air Act. Note: This category includes oxygenated fuels program reformulated gasoline (OPRG) but excludes reformulated gasoline blendstock for oxygenate blending (RBOB).

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): For stock level data, a sum including finished motor gasoline stocks plus stocks of motor gasoline blending components but excluding stocks of oxygenates.

MTBE: See **Methyl Tertiary Butyl Ether**.

NAICS (North American Industry Classification System) A coding system developed jointly by the United States, Canada, and Mexico to classify businesses and industries according to the type of economic activity in which they are engaged. NAICS replaces the Standard Industrial Classification (SIC) codes. For additional information on NAICS, go to <http://www.census.gov/epcd/www/naics.html>.

Naphtha: A generic term applied to a petroleum fraction with an approximate boiling range between 122 and 400° F.

Natural Gas: A gaseous mixture of hydrocarbon compounds, primarily methane, used as a fuel for electricity generation and in a variety of ways in buildings, and as raw material input and fuel for industrial processes.

Natural Gas, Dry: Natural gas which remains after: 1) the liquefiable hydrocarbon portion has been removed from the gas stream (i.e., gas after lease, field, and/or plant separation); and 2) any volumes of nonhydrocarbon gases have been removed where they occur in sufficient quantity to render the gas unmarketable. Note: Dry natural gas is also known as consumer-grade natural gas. The parameters for measurement are cubic feet at 60 degrees Fahrenheit and 14.73 pounds per square inch absolute.

Natural Gas (Dry) Production: The process of producing consumer-grade natural gas. Natural gas withdrawn from reservoirs is reduced by volumes used at the production (lease) site and by processing losses. Volumes used at the production site include 1) the volume returned to reservoirs in cycling, repressuring of oil reservoirs, and conservation operations; and 2) gas vented and flared. Processing losses include 1) nonhydrocarbon gases (e.g., water vapor, carbon dioxide, helium, hydrogen sulfide, and nitrogen) removed from the gas stream; and 2) gas converted to liquid form, such as lease condensate and plant liquids. Volumes of dry gas withdrawn from gas storage reservoirs are not considered part of production. Dry natural gas production equals marketed production less extraction loss.

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 Material 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 Gasoline: A mixture of hydrocarbons (mostly pentanes and heavier) extracted from natural gas that meets vapor pressure, end-point, and other specifications for natural gasoline set by the Gas Processors Association. Includes isopentane, which is a saturated branch-chain hydrocarbon

obtained by fractionation of natural gasoline or isomerization of normal pentane.

Net Summer Capacity: The maximum output, commonly expressed in **kilowatts** (kW) or megawatts (MW), that generating equipment can supply to system load, as demonstrated by a multi-hour test, at the time of summer peak demand. This output reflects a reduction in capacity due to electricity use for station service or auxiliaries.

Neutral Zone: A 6,200 square-mile area shared equally between Kuwait and Saudi Arabia under a 1992 agreement. The Neutral Zone contains an estimated 5 billion barrels of oil and 8 trillion cubic feet of natural gas.

Nonhydrocarbon Gases: Typical nonhydrocarbon gases that may be present in reservoir natural gas are carbon dioxide, helium, hydrogen sulfide, and nitrogen.

Nuclear Electric Power (Nuclear Power): Electricity generated by the use of the thermal energy released from the fission of nuclear fuel in a reactor.

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 a nuclear fission chain reaction can be initiated, controlled, and sustained at a specific rate. A reactor includes fuel (fissionable material), moderating material to control the rate of fission, a heavy-walled pressure vessel to house reactor components, shielding to protect personnel, a system to conduct heat away from the reactor, and instrumentation for monitoring and controlling the reactor's systems.

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**.

Operable Unit (Nuclear): In the United States, a nuclear generating unit that has completed low-power testing and been issued a full-power operating license by the Nuclear Regulatory Commission, or equivalent permission to operate.

Organization for Economic Cooperation and Development (OECD): Members are Australia, Austria, Belgium, Canada, Denmark, Faeroe 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.

Oxygenates: Substances which, when added to gasoline, increase the amount of oxygen in that gasoline blend. Ethanol, Methyl Tertiary Butyl Ether (MTBE), Ethyl Tertiary Butyl Ether (ETBE), and methanol are common oxygenates.

PAD Districts: Petroleum Administration for Defense Districts. Geographic aggregations of the 50 States and the District of Columbia into five districts for the Petroleum Administration for Defense in 1950. The districts were originally instituted for economic and geographic reasons as Petroleum Administration for War (PAW) Districts, which were established in 1942.

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 broadly defined class of liquid hydrocarbon mixtures. Included are crude oil, lease condensate, unfinished oils, refined products obtained from the processing of crude oil, and natural gas plant liquids. Note: Volumes of finished petroleum products include nonhydrocarbon compounds, such as additives and detergents, after they have been blended into the products.

Petroleum Coke: See **Coke, Petroleum**.

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: Same as **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 Energy: Direct-current electricity generated from sunlight through solid-state semiconductor devices that have no moving parts.

Pipeline Fuel: Gas consumed in the operation of pipelines, primarily in compressors.

Plant Condensate: One of the natural gas liquids, mostly pentanes and heavier hydrocarbons, recovered and separated as liquid at gas inlet separators or scrubbers in processing plants.

Prime Mover: The engine, turbine, water wheel, or similar machine that drives an electric generator; or, for reporting purposes, a device that converts energy to electricity directly.

Primary Consumption: Includes consumption of coal, natural gas, petroleum, nuclear electric power, hydroelectric power, wood, waste, alcohol fuels, geothermal, solar, wind, net imports of coal coke, and net imports of electricity.

Propane: A normally gaseous straight-chain hydrocarbon (C₃H₈). 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 (C₃H₆) 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 **conventional hydroelectric power, wood, waste, alcohol fuels, geothermal, solar, and wind**.

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: An energy-consuming sector that consists of living quarters for private households. Common uses of energy associated with this sector include space heating, water heating, air conditioning, lighting, refrigeration, cooking, and running a variety of other appliances. The residential sector excludes institutional living quarters. For further explanation see

<http://www.eia.doe.gov/neic/datadefinitions/Guideforwebres.htm>.

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 (Standard Industrial Classification): A set of codes developed by the U.S. Office of Management and Budget which categorizes industries into groups with similar

economic activities. Replaced by NAICS (North American Industry Classification System).

Solar Energy: See **Solar Thermal Energy** and **Photovoltaic Energy**.

Solar Thermal Energy: The radiant energy of the sun that can be converted into other forms of energy, such as heat or **electricity**.

Special Naphthas: All finished products within the naphtha boiling ranges that are used as paint thinner, cleaners or solvents. Those products are refined to a specified flash point. Special naphthas include all commercial hexane and cleaning solvents conforming to ASTM Specifications D1836 and D484, respectively. Naphthas to be blended or marketed as motor gasoline or aviation gasoline, or that are to be used as petrochemical and synthetic natural gas (SNG) feedstocks, are excluded.

Steam Coal: All nonmetallurgical coal.

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.

Still Gas (Refinery Gas): Any form or mixture of gas produced in refineries by distillation, cracking, reforming, and other processes. The principal constituents are methane, ethane, ethylene, normal butane, butylene, propane, and propylene. It is used primarily as refinery fuel and, petrochemical feedstock.

Stocks: See **Coal Stocks**, **Crude Oil Stocks**, or **Petroleum Stocks, Primary**.

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

Supplemental Gaseous Fuels: Synthetic natural gas, propane-air, coke oven gas, refinery gas, biomass gas, air injected for Btu stabilization, and manufactured gas commingled and distributed with natural gas.

Synthetic Natural Gas (SNG): (Also referred to as substitute natural gas) A manufactured product, chemically similar in most respects to natural gas, resulting from the conversion or reforming of petroleum hydrocarbons that may easily be substituted for or interchanged with pipeline-quality natural gas.

Thermal Conversion Factor: See **Conversion Factor**.

Transportation Sector: An energy-consuming sector that consists of all vehicles whose primary purpose is transporting people and/or goods from one physical location to another. Included are automobiles; trucks; buses; motorcycles; trains, subways, and other rail vehicles; aircraft; and ships, barges, and other waterborne vehicles. Vehicles whose primary purpose is not transportation (e.g., construction cranes and bulldozers, farming vehicles, and warehouse tractors and forklifts) are classified in the sector of their primary use. *Note:* Various EIA programs differ in sectoral coverage. For further information see <http://www.eia.doe.gov/neic/datadefinitions/Guideforwebtrans.htm>.

Unaccounted-for Crude Oil: Represents the 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 minus 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.

Unfinished Oils: All oils requiring further refinery processing except those requiring only mechanical blending. Includes naphthas and lighter oils, kerosene and light gas oils, heavy gas oils, and residuum.

Unfractionated Stream: Mixtures of unsegregated natural gas liquid components, excluding those in plant condensate. This product is extracted from natural gas.

Underground Storage: The storage of natural gas in underground reservoirs at a different location from which it was produced.

United States: The 50 States and the District of Columbia. *Note:* The United States has varying degrees of jurisdiction over a number of territories and other political entities outside the 50 States and the District of Columbia, including Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, Johnston Atoll, Midway Islands, Wake Island, and the Northern Mariana Islands. EIA data programs may include data from some or all of these areas in U.S. totals. For these programs, data products will contain notes explaining the extent of geographic coverage included under the term "United States."

Useful Thermal Output: The thermal energy made available in a combined-heat-and-power system for use in any industrial or commercial process, heating or cooling application, or delivered to other end users, i.e., total thermal energy made available for processes and applications other than electrical generation.

U.S.S.R.: The Union of Soviet Socialist Republics consisted of 15 constituent republics: Armenia, Azerbaijan,

Belarus, Estonia, Georgia, Kazakhstan, 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 production site or at processing plants.

Vessel Bunkering: Includes sales for the fueling of commercial or private boats, such as pleasure craft, fishing boats, tugboats, and ocean-going vessels, including vessels operated by oil companies. Excluded are volumes sold to the U.S. Armed Forces.

Waste Energy: Municipal solid waste, landfill gas, methane, digester gas, liquid acetonitrile waste, tall oil, waste alcohol,

medical waste, paper pellets, sludge waste, solid byproducts, tires, agricultural byproducts, closed loop biomass, fish oil, and straw used as fuel.

Watt (W): The unit of electrical power equal to one ampere under a pressure of one volt. A watt is equal to 1/746 horsepower.

Watthour (Wh): The electrical energy unit of measure equal to one watt of power supplied to, or taken from, an electric circuit steadily for one hour.

Waxes: Solid or semisolid material derived from petroleum distillates or residues. Waxes are light-colored, more or less translucent crystalline masses, slightly greasy to the touch, consisting of a mixture of solid hydrocarbons in which the paraffin series predominates. Included are all marketable waxes, whether crude scale or fully refined. Waxes are used primarily as industrial coating for surface protection.

Wellhead Price: The value of crude oil or natural gas at the mouth of the well.

Wind Energy: Kinetic energy present in wind motion that can be converted to mechanical energy for driving pumps, mills, and electric power generators.

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 volume of gas in a reservoir that is in addition to the base 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 season.

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