

Monthly Energy Review

The Monthly Energy Review (MER) presents an overview of the Energy Information Administration's recent monthly energy statistics. The statistics cover the major activities of U.S. production, consumption, trade, stocks, and prices for petroleum, natural gas, coal, electricity, and nuclear energy. Also included are international energy and thermal and metric conversion factors.

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National Energy Information Center, El-30
Energy Information Administration
Forrestal Building, Room 1E-238
Washington, DC 20585
202-586-8800
Fax: 202-586-0727
Internet E-Mail: infoctr@eia.doe.gov
TTY: For people who are deaf
or hard of hearing: 202-586-1181
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Contacts

The Monthly Energy Review is prepared in the Integrated Energy Statistics Division of the Office of Energy Markets and End Use, Energy Information Administration, under the direction of Katherine E. Seiferlein, 202-586-5695 (kitty.seiferlein@eia.doe.gov). Questions and comments specifically related to the Monthly Energy Review may be addressed to Diane D. Perritt, 202-586-2788 (diane.perritt@eia.doe.gov), or Michelle Burch, 202-586-5850 (michelle.burch@eia.doe.gov).

For assistance in acquiring data, please contact the National Energy Information Center at 202-586-8800 or infoctr@eia.doe.gov. Questions about the collection, processing, or interpretation of the information may be directed to the following subject specialists:

Section	1.	Energy Overview	Dianne R. Dunn	202-586-2792 dianne.dunn@eia.doe.gov
Section	2.	Energy Consumption by Sector	Dianne R. Dunn	202-586-2792 dianne.dunn@eia.doe.gov
Section	3.	Petroleum	Michael Conner	202-586-1795 michael.conner@eia.doe.gov
Section	4.	Natural Gas	Margaret Natof	202-586-6303 margaret.natof@eia.doe.gov
Section	5.	Crude Oil and Natural Gas Resource Development	Robert F. King	202-586-4787 robert.king@eia.doe.gov
Section	6.	Coal	Mary L. Lilly	202-287-1742 mary.lilly@eia.doe.gov
Section	7.	Electricity		
		Electric Utilities	Melvin E. Johnson	202-287-1754 melvin.johnson@eia.doe.gov
		Nonutility Power Producers	Barbara A. Rucker	202-287-1765 barbara.rucker@eia.doe.gov
		Retail Sales	Stephen Scott	202-287-1737 stephen.scott@eia.doe.gov
Section	8.	Nuclear Energy	John R. Moens	202-287-1976 john.moens@eia.doe.gov
Section	9.	Energy Prices		
		Petroleum	Patricia Wells	202-586-4885 patricia.wells@eia.doe.gov
		Natural Gas	Roy Kass	202-586-4790 nathaniel.kass@eia.doe.gov
		Electricity Retail Prices	Stephen Scott	202-287-1737 stephen.scott@eia.doe.gov
		Electricity Fossil-Fuel Receipts		ey 202-287-1732 kenneth.mcclevey@eia.doe.gov
Section		Renewable Energy	Louise Guey-Lee	louise.guey-lee@eia.doe.gov
Section	11.	International Energy Petroleum Production	Patricia Smith	202-586-6925 patricia.smith@eia.doe.gov
		Petroleum Consumption and Stocks	Kathy Washington	202-586-1446 kathy.washington@eia.doe.gov
		Nuclear Electricity Gross Generation	John R. Moens	202-287-1976 john.moens@eia.doe.gov

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Energy Plug

Foreign Direct Investment in U.S. Energy in 2000

The share of U.S. natural gas production by Foreign Direct Investment (FDI) affiliate companies increased in 2000 while their share of petroleum production, refinery capacity and coal production declined. FDI-affiliated electricity acquisi-

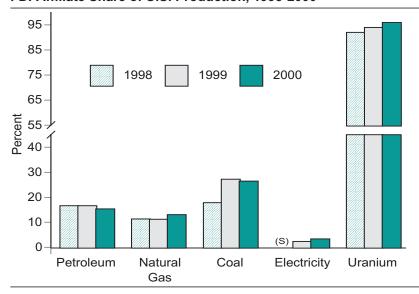
tions and generation capacity continued to grow despite divestitures, as did FDI affiliates' share of uranium production. These and other facts are detailed in the latest edition of *Foreign Direct Investment in U.S. Energy in 2000*, from the Energy Information Administration (EIA).

Foreign direct investment is defined as the ownership or control of 10 percent, or more, of a U.S. business or asset by a foreign entity.

Petroleum and Natural Gas. BP Amoco's \$27-billion acquisition of ARCO had the biggest impact on the foreign-affiliated oil and natural gas industry in 2000, increasing the group's natural gas production by 12 percent in spite of a decline in production at Shell. Nevertheless, oil production by FDI affiliates fell 9 percent during the year, mostly due to the divestiture of Altura Energy by BP America and Shell Oil. BP and Shell together held 87 percent of foreign affiliate oil and natural gas production at the end of 2000.

Four transactions resulted in a small reduction in the refinery capacity of FDI affiliates. The number of FDI-affiliate retail outlets increased 2 percent and motor gasoline sales increased by just over 8 percent as BP gained ARCO's 1,500 outlets and Lukoil (Russia) purchased almost 1,300 Getty-branded outlets.

FDI-Affiliate Share of U.S. Production, 1998-2000



(S)=Less than 0.5.

Source: Energy Information Administration.

Electricity, Coal and Uranium. Net electricity generation capacity of FDI-affiliates increased one percentage point in 2000 to reach 3.3 percent of the U.S. total as Powergen (United Kingdom) acquired LG&E Energy for

\$5.4 billion. This was the second-largest FDI electricity purchase after the groundbreaking \$10.9 billion ScottishPower (United Kingdom) takeover of PacifiCorp in 1999. LG&E Energy and PacifiCorp accounted for more than two-thirds of FDI-affiliate electric capacity at year end.

In 2000, Amergen purchased GPU's Oyster Creek nuclear plant for \$10 million; the first foreign venture into nuclear power occured in 1999 when Amergen (United Kingdom) purchased Clinton Nuclear Power Station from Illinois Power and Three Mile Island Unit 1 from GPU Inc.

Coal production by the foreign-affiliated companies decreased 5 percent in 2000 while U.S. production declined by 2 percent, resulting in a small decline in the FDI share of U.S. coal output.

In 2000, FDI affiliates accounted for 96 percent of U.S. uranium concentrate production of 4 million pounds (a decline of 14 percent over 1999). The foreign-affiliated companies are Cameco (Canada), the world's largest producer of uranium, and BHP Billiton (Australia).

Financial Results. Capital spending by FDI-affiliated petroleum and natural gas companies increased 42 percent in

2000, mostly from upstream acquisitions. Downstream refining, marketing, and pipeline capital spending increased 23 percent over the previous year.

The financial performance of FDI affiliates in petroleum, natural gas, and coal improved in 2000. Net income more than doubled as revenues increased 73 percent, faster than operating costs. Cash flow and capital spending both grew by similar percentages, and the debt-to-equity ratio fell more than 7 percentage points. However, a comparison group of domestic energy companies performed better by many financial measures. Net income and cash flow increased by larger percentages for the comparison group than for the FDI affiliates, and their return on equity ratio rose 12 percentage points, double the 6 percentage point gain among the FDI affiliates.

Foreign Direct Investment in U.S. Energy in 2000 is available on the EIA Web site at http://www.eia.doe.gov. Under "Analyses" tap "Finance" and then under "Analysis" tap "Foreign Investment." Contact wmaster@eia.doe.gov or call 202–586–8959 if you have problems. Questions about the report's content should be directed to Neal Davis, Financial Analysis Team, at neal.davis@eia.doe.gov or 202–586–6581. For general information about energy, contact the National Energy Information Center at infoctr@eia.doe.gov or 202–586–8800.

U.S. Natural Gas Markets: Relationship Between Henry Hub Spot Prices and U.S. Wellhead Prices

ways available, market participants have adopted Henry Hub spot and futures prices as a surrogate measure for the current wellhead price. Several publications report prices daily at Henry Hub, the largest centralized point for natural gas trading in the United States.

The Energy Information Administration (EIA) reports an average wellhead price for natural gas in its Natural Gas Monthly publication, after the final production and price data are received on Form EIA-895 "Monthly Quantity of Natural Gas Report." EIA frequently has been asked about the relationship between the Henry Hub spot prices and U.S. wellhead prices. A new EIA analysis, "U.S. Natural Gas Markets: Relationship Between Henry Hub Spot Prices and U.S. Wellhead Prices" examines the relationship between these two series for the period spanning August 1996 through December 2000. The results indicate that there is a strong linear relationship between the two price series.

Henry Hub spot gas represents natural gas sales contracted for next day delivery. The analysis uses Natural Gas Week's monthly Henry Hub spot price, a volume-weighted average price of spot transactions. The Henry Hub spot price pertains to transactions for delivery at the Henry Gas Processing Plant and is measured downstream of the wellhead, after the natural gas liquids have been removed and after a transportation cost has been incurred. In contrast, the wellhead price includes the value of natural gas liquids and pertains to all transactions occurring in the United States, thereby encompassing purchase commitments of all durations.

Analysis Results. For the period from August 1996 through December 2000, the correlation coefficient for Henry Hub spot prices and U.S. wellhead prices is 0.975, indicating a strong linear relationship.

The analysis examines the actual difference between the Henry Hub spot price and the wellhead price (in 2000 dollars) over the same period. The mean (arithmetic average) price difference is 31.6 cents per thousand cubic feet, and the median value is 23.6 cents per thousand cubic feet. Both values are consistent with the notion that the Henry Hub price includes a transportation cost for moving the natural gas from the wellhead. The spread of 8 cents per thousand cubic feet between the mean and median indicates that the distribution of observations is not symmetric around the mean. Moreover, the standard deviation of 38.5 cents per thousand cubic feet

Because "real-time" wellhead natural gas prices are not al-indicates a relatively wide distribution of observations. Given the large difference between the mean and median values and the relatively large standard deviation, the price difference is not a particularly precise expression of the relationship between the two prices. Because of the nonsymmetric nature of the observations, the median value might be more representative of the central tendency of the data than is the mean value.

> The paper also evaluates the percent difference between the Henry Hub price and the wellhead price. The percent difference approach has several advantages relative to the actual difference. First, the mean and median values are close to each other, at 10.8 percent and 10.4 percent, respectively, indicating a more symmetrical distribution, as shown in the table below. Moreover, the standard deviation (8.5 percent) is less than both the mean (10.8) and median (10.4) values, indicating a narrower distribution of observations. Consequently, the percent difference measure appears to be a better measure of the relationship between the Henry Hub spot price and the wellhead price of natural gas.

Descriptive Statistics Henry Hub Spot Price Minus U.S. Wellhead Price August 1996-December 2000

•		
	Actual Price Difference ^a	Percent Difference
Mean	31.6	10.8
Median	23.6	10.4
Standard Deviation	38.5	8.5

^a2000 cents per million cubic feet.

Source: Energy Information Administration.

Conclusions. The percent difference appears to be a better measure of the relationship between the two prices than does the actual difference, because (1) the mean and median values of the percent difference are in close agreement, indicating a more symmetric distribution of observations; (2) the magnitude of the standard deviation is lower, indicating a narrower distribution of observations around the mean; and (3) the percent difference relationship can be evaluated without translating nominal prices into real (constant dollar) prices.

U.S. Natural Gas Markets: Relationship Between Henry Hub Spot Prices and U.S. Wellhead Prices is available on the EIA Web site at http://www.eia.doe.gov. Under "By Fuel" select "Natural Gas"; under "Analysis" select "Analysis Publications" and then this paper. Contact wmaster@eia.doe.gov or call 202-586-8959 if you have problems. Questions about the report's content should be directed to Philip Budzik, Oil and Gas Division, at philip.budzik@eia.doe.gov or 202-586-2847. 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 May 2002 totaled 6.0 quadrillion Btu, a 1.7-percent decrease compared with the level of production during May 2001. Production of coal decreased 6.5 percent; natural gas (dry) decreased 4.2 percent; nuclear electric power increased 1.7 percent; and crude oil and natural gas plant liquids each increased 1.3 percent; compared with the level of production during May 2001.

Energy consumption during May 2002 totaled 7.8 quadrillion Btu, 1.6 percent above the level of consumption during May 2001. Consumption of natural gas increased 4.3 percent; coal decreased 1.8

percent; nuclear electric power increased 1.7 percent; and petroleum increased 0.9 percent, compared with the level 1 year earlier.

Net imports of energy during May 2002 totaled 2.2 quadrillion Btu, 6.4 percent below the level of net imports 1 year earlier. Net imports of petroleum products decreased 8.2 percent; natural gas fell 7.7 percent; and crude oil decreased 6.4 percent. Net exports of coal decreased 32.9 percent while net imports of coal coke increased 24.4 percent, compared with the level in May 2001.

Table 1.1 Energy Summary for May 2002 (Quadrillion Btu)

		Мау		Cumulative January Through May						
	2002	2001	Percent Change ^a	2002	2002 Daily Rate	2001	2001 Daily Rate	Percent Change ^b		
Production ^c	6.038	6.141	-1.7	30.101	0.199	30.104	0.199	0.0		
Fossil Fuels	4.792	4.977	-3.7	24.050	.159	24.312	.161	-1.1		
Coal	1.875	2.005	-6.5	9.639	.064	9.882	.065	-2.5		
Natural Gas (Dry)	E 1.631	1.702	-4.2	E 8.160	E .054	8.341	.055	-2.2		
Crude Oild	E 1.062	1.048	1.3	E 5.181	E .034	5.107	.034	1.5		
Natural Gas Plant Liquids	.224	.221	1.3	1.070	.007	.982	.007	8.9		
Nuclear Electric Power	.664	.654	1.7	3.327	.022	3.289	.022	1.2		
Renewable Energy	.589	.518	13.5	2.756	.018	2.534	.017	8.8		
Consumption ^e	7.803	7.681	1.6	40.607	.269	41.226	.273	-1.5		
Fossil Fuels ^f	6.564	6.508	.9	34.554	.229	35.424	.235	-2.5		
Coal	1.714	1.745	-1.8	8.715	.058	8.806	.058	-1.0		
Natural Gas ^g	^F 1.585	1.520	4.3	E 10.102	E.067	10.618	.070	-4.9		
Petroleumh	3.261	3.231	.9	15.699	.104	15.964	.106	-1.7		
Nuclear Electric Power	.664	.654	1.7	3.327	.022	3.289	.022	1.2		
Renewable Energy ^e	.596	.539	10.6	2.820	.019	2.605	.017	8.2		
Net Imports	2.182	2.333	-6.4	10.348	.069	11.354	.075	-8.9		
Fossil Fuels ⁱ	2.175	2.313	-5.9	10.284	.068	11.283	.075	-8.9		
Coal ^j	063	094	-32.9	294	002	395	003	-25.6		
Coal Coke	.005	.004	24.4	.015	.000	.017	.000	-8.7		
Natural Gas	E.284	.308	-7.7	E 1.467	E .010	1.615	.011	-9.2		
Crude Oil ^k	1.704	1.820	-6.4	7.987	.053	8.492	.056	-5.9		
Petroleum Products ^I	.245	.267	-8.2	1.085	.007	1.536	.010	-29.3		
Renewable Energy ^m	€.007	E.020	-64.0	^E .064	€.000	^E .071	€.000	-9.9		

Based on data prior to rounding.

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: Tables 1.3, 1.4, and 1.5.

b Based on daily rates prior to rounding.

^c Total production also includes hydroelectricity generated from pumped storage.

d Includes lease condensate.

^e Alcohol (ethanol blended into motor gasoline) is included in both "Petroleum" and "Renewable Energy," but is counted only once in total energy consumption.

f Fossil fuel consumption also includes coal coke net imports and electricity net imports from fossil fuels.

g Includes supplemental gaseous fuels.

h Petroleum products supplied, including natural gas plant liquids and crude oil burned as fuel.

i Fossil fuel net imports also include electricity net imports from fossil uels

Minus sign indicates exports are greater than imports.

k Crude oil, lease condensate, and imports of crude oil for the Strategic Petroleum Reserve.

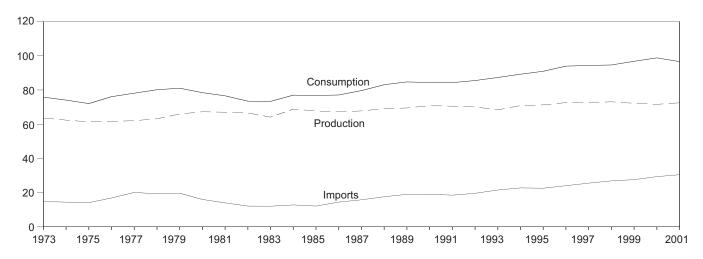
Petroleum products, unfinished oils, pentanes plus, and gasoline blending components.

Electricity net imports derived from hydroelectric power or geothermal energy.

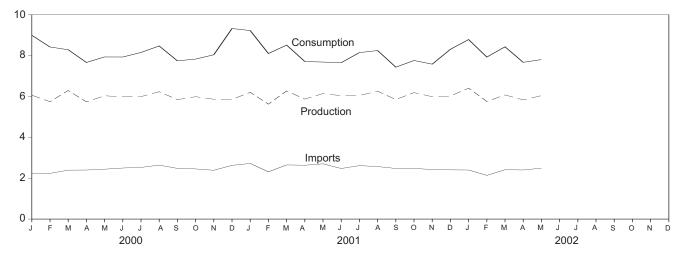
E=Estimate. F=Forecast.

Figure 1.1 Energy Overview

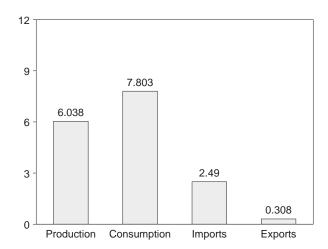
Consumption, Production, and Imports, 1973-2001



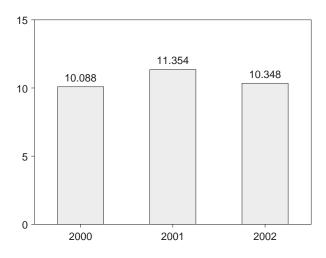
Consumption, Production, and Imports, Monthly



Overview, May 2002



Net Imports, January-May



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 Overview

	Production	Consumptiona	Imports	Exports	Net Imports
372 Total	62 505	75.808	14 724	2.054	12 690
973 Total	63.585		14.731	2.051	12.680
974 Total	62.372	74.080	14.413	2.223	12.190
975 Total	61.357	72.042	14.111	2.359	11.752
976 Total	61.602	76.072	16.837	2.188	14.648
977 Total	62.052	78.122	20.090	2.071	18.019
978 Total	63.137	80.123	19.254	1.931	17.323
979 Total	65.948	81.044	19.616	2.870	16.746
980 Total	67.241	78.435	15.971	3.723	12.247
981 Total	67.007	76.569	13.975	4.329	9.646
982 Total	66.574	73.440	12.092	4.633	7.460
983 Total	64.106	73.317	12.027	3.717	8.310
984 Total	68.832	76.972	12.767	3.804	8.963
985 Total	67.720	76.778	12.103	4.231	7.872
986 Total	67.178	77.065	14.438	4.055	10.382
987 Total	67.760	79.633	15.764	3.853	11.911
988 Total	69.025	83.068	17.564	4.415	13.149
989 Total	69.467	84.716	18.955	4.767	14.188
990 Total	70.835	84.344	18.952	4.865	14.087
91 Total	70.528	84.298	18.497	5.157	13.339
992 Total	70.069	85.513	19.577	4.957	14.621
93 Total	68.378	87.300	21.498	4.283	17.215
94 Total	70.848	89.213	22.727	4.075	18.652
95 Total	71.301	90.943	22.566	4.536	18.030
96 Total	72.595	93.931	24.010	4.656	19.354
97 Total	72.545	94.340	25.514	4.576	20.938
98 Total					
	73.068	94.623	26.855	4.389	22.466
99 Total	72.197	96.767	27.549	3.811	23.738
00 January	6.062	8.991	2.237	.327	1.910
February	5.740	8.419	2.234	.269	1.965
March	6.289	8.285	2.393	.371	2.021
April	5.735	7.662	2.399	.315	2.084
May	6.031	7.932	2.440	.332	2.108
June	5.982	7.929	2.497	.332	2.165
	5.991	8.151	2.526	.317	2.209
July					
August	6.229	8.470	2.639	.388	2.251
September	5.844	7.740	2.479	.330	2.149
October	5.987	7.827	2.453	.382	2.071
November	5.863	8.039	2.387	.384	2.004
December	5.853	9.322	2.628	.361	2.266
Total	71.604	98.775	29.313	4.109	25.204
01 January	6.203	9.223	2.721	.359	2.363
February	5.622	R 8.101	2.310	.306	2.004
March	6.269	8.512	2.649	.303	2.346
April	5.870	R 7.709	2.634	.325	2.309
		R 7.681	2.701		2.333
May	6.141			.368	
June	6.035	R 7.651	2.473	.313	2.160
July	6.047	R 8.145	2.615	.287	2.327
August	6.255	R 8.245	2.569	.346	2.223
September	5.850	^R 7.431	2.476	.301	2.175
October	6.186	^R 7.758	2.474	.320	2.154
November	5.987	^R 7.579	2.425	.332	2.094
December	6.020	R 8.305	2.407	.330	2.077
Total	72.483	R 96.339	30.454	3.890	26.564
02 January	^R 6.403	^R 8.783	2.399	.303	2.096
	R 5.755	R 7.926			
February			2.137	.290	1.847
March	R 6.074	R 8.427	2.413	.281	2.132
April	R 5.831	R 7.668	R 2.401	R .311	R 2.090
May	6.038	7.803	2.490	.308	2.182
5-Month Total	30.101	40.607	11.840	1.493	10.348
01 5-Month Total	30.104	41.226	13.014	1.660	11.354
	29.856	41.288	11.703	1.615	10.088

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

R=Revised.

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

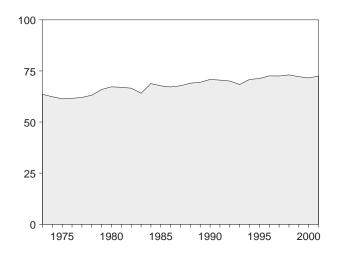
Totals may not equal sum of components due to independent rounding. Geographic coverage is the 50 States and the District of Columbia.

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

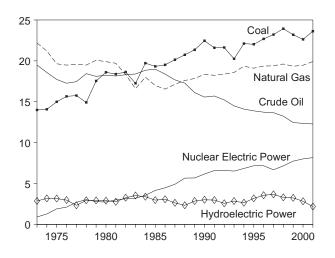
Sources: **Production:** Table 1.3. **Consumption:** Table 1.4. **Imports and Exports:** Tables 3.1b, 4.3, 6.1, 7.1, A2-A6, 10.3b, and Section 2, "Energy Consumption Notes and Sources," Note 5. **Net Imports:** Table

Figure 1.2 Energy Production

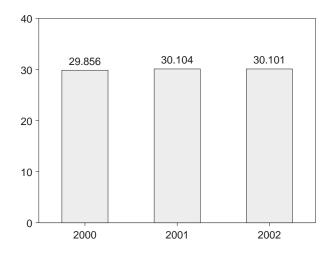
Total, 1973-2001



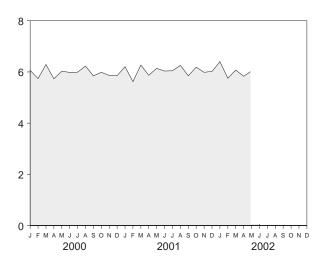
By Major Sources, 1973-2001



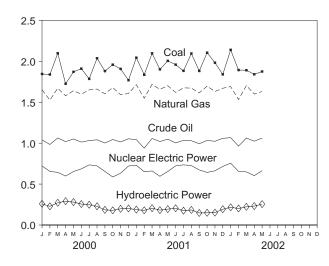
Total, January-May



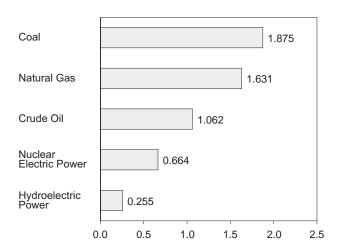
Total, Monthly



By Major Sources, Monthly



By Major Sources, May 2002



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 Production by Source

	Fossil Fuels					Renewable Energy ^a							
	Coal	Natural Gas (Dry)	Crude Oil ^b	Natural Gas Plant Liquids	Total	Nuclear Electric Power	Hydro- electric Pumped Storage ^c	Conventional Hydroelectric Power	Wood, Waste, Alcohol ^d	Geo- thermal	Solar and Wind	Total	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 14.910	19.565 19.485	17.454 18.434	2.327 2.245	55.101 55.074	2.702 3.024	(e)	2.333 2.937	1.838 2.038	.077 .064	NA NA	4.249 5.039	62.052 63.137
1978 Total 1979 Total	17.540	20.076	18.434	2.245	58.006	2.776	(e }	2.937	2.038	.084	NA NA	5.166	65.948
1980 Total	18.598	19.908	18.249	2.254	59.008	2.739	(e)	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)	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)	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)	^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)	<u></u> 3.386	_ 2.880	.165	(s)	6.431	68.832
1985 Total	19.325	16.980	18.992	2.241	57.539	4.149	(e)	E 2.970	E 2.864	.198	(s)	6.033	67.720
1986 Total	19.509	16.541	18.376	2.149	56.575	4.471	(e)	^E 3.071 ^E 2.635	E 2.841 E 2.823	.219 .229	(s)	6.132	67.178
1987 Total 1988 Total	20.141 20.738	17.136 17.599	17.675 17.279	2.215 2.260	57.167 57.875	4.906 5.661	(e }	E 2.334	E 2.937	.229	(s) (s)	5.687 5.489	67.760 69.025
1989 Total	21.346	17.399	16.117	2.158	57.468	^f 5.677	(e)	2.855	E 3.060	.323	.083	6.322	69.467
1990 Total	22.456	18.362	15.571	2.175	58.564	6.162	036	3.048	^E 2.660	.343	.094	6.145	70.835
1991 Total	21.594	18.229	15.701	2.306	57.829	6.580	047	3.021	^E 2.700	.348	.097	6.167	70.528
1992 Total	21.629	18.375	15.223	2.363	57.590	6.608	043	2.617	E 2.845	.355	.097	5.915	70.069
1993 Total	20.249	18.584	14.494	2.408	55.736	6.520	042	2.892	2.803	.369	.102	6.165	68.378
1994 Total	22.111	19.348	14.103	2.391	57.952	6.838	035	2.684	2.938	.364	.107	6.093	70.848
1995 Total	22.029 22.684	19.101 19.363	13.887 13.723	2.442 2.530	57.458 58.299	7.177 7.168	028 032	3.207 3.593	3.066 3.126	.314 .332	.106 .110	6.694 7.160	71.301 72.595
1996 Total 1997 Total	23.211	19.303	13.723	2.495	58.758	6.678	032	3.718	3.004	.322	.110	7.160	72.595
1998 Total	23.935	19.613	13.235	2.420	59.204	7.157	046	3.345	2.976	.327	.107	6.752	73.068
1999 Total	23.186	19.341	12.451	2.528	57.505	7.736	063	3.305	E 3.259	.335	.119	7.018	72.197
2000 January	4 0 4 5	4.054	4.040	200	4.700	700	005	201	F 077	F 007	F 040	F70	0.000
2000 January	1.845 1.838	1.654	1.040 .984	.226	4.766 4.564	.722 .655	005 004	.264 .233	E .277 E .260	E .027 E .024	E.010 E.009	.578 .526	6.062 5.740
February March	2.098	1.526 1.671	1.064	.215 .230	5.062	.643	004	.233 .277	E .278	E .024	E .010	.526	6.289
April	1.725	1.579	1.019	.220	4.542	.598	004	.295	E.268	E .025	E .011	.599	5.735
May	1.871	1.640	1.051	.225	4.787	.653	005	.285	E.275	E .026	E.011	.596	6.031
June	1.910	1.599	1.013	.215	4.737	.686	006	.262	E.266	E.026	E.011	.564	5.982
July	1.785	1.651	1.032	.224	4.691	.735	003	.252	E.279	E.027	E.010	.568	5.991
August	2.037	1.661	1.041	.225	4.963	.722	004	.232	E .278	E .028	E .011	.548	6.229
September	1.880	1.603 1.679	1.002	.215	4.700 4.904	.654	007 004	.192	E .268 E .279	E .027 E .028	E.010 E.010	.497 .500	5.844 5.987
October November	1.959 1.907	1.679	1.044 1.015	.222 .210	4.904 4.724	.587 .633	004 004	.183 .201	E.279	E .028	E .010	.500	5.863
December	1.769	1.607	1.013	.183	4.613	.721	004	.208	E .278	E .029	E .009	.524	5.853
Total	22.623	19.461	12.358	2.611	57.054	8.009	057	2.883	E 3.276	E.319	E .121	6.599	71.604
2001 January	2.044	1.714	1.043	.162	4.963	.730	006	.194	E .285	E .029	E .009	.516	6.203
February	1.835	1.549	.939	.181	4.504	.651	005	.184	E .254 E .280	E .026 E .027	E .008	.472	5.622
March April	2.097 1.901	1.719 1.657	1.057 1.020	.212 .205	5.085 4.783	.660 .595	006 006	.212 .188	E .272	E .027	E.013	.530 .498	6.269 5.870
May	2.005	1.702	1.020	.203	4.763	.654	008	.202	E.280	E .023	E .013	.518	6.141
June	1.959	1.620	1.003	.214	4.796	.723	009	.214	E .274	E .025	E.013	.526	6.035
July	1.883	1.676	1.034	.220	4.813	.735	010	.185	E.285	E.026	E .012	.509	6.047
August	2.095	1.672	1.029	.226	5.022	.726	010	.194	E.284	E .026	E.012	.516	6.255
September	1.882	1.614	.993	.228	4.717	.673	010	.157	E .276	E .026	E .011	.469	5.850
October	2.105 1.983	1.696 1.631	1.033	.234 .224	5.068 4.861	.643 .662	007 008	.157 .159	E .288 E .278	E .026 E .026	E.011 E.009	.482 .472	6.186 5.987
November December	1.840	1.671	1.023 1.059	.224	4.861	.662 .716	008	.200	E .286	E .026	E.010	.522	6.020
Total	23.629	19.920	12.282	2.547	58.377	8.167	091	2.245	E 3.342	E .312	E .131	6.030	72.483
										F 00-			
2002 January	2.140	RE 1.691 RE 1.533	E 1.067 E .964	.212	^R 5.110 ^R 4.589	.755	007 R006	.224 R .208	E .287 RE .274	E .027 RE .023	E.007 RE.010	.545 R .516	^R 6.403 ^R 5.755
February March	1.893 1.891	RE 1.704	E 1.063	.198 .220	R 4.878	.656 R .649	R006	R .228	RE .274	RE .023	RE .014	R .552	R 6.074
April	1.841	E 1.600	E 1.024	.215	4.681	R .603	R007	R .238	RE .277	RE .023	RE .016	R .554	R 5.831
May	1.875	E 1.631	E 1.062	.224	R 4.792	.664	007	.261	E .287	E .022	E.018	.589	6.038
5-Month Total	9.639	^E 8.160	^E 5.181	1.070	24.050	3.327	033	1.159	E 1.411	E.120	€ .065	2.756	30.101
2001 E Month Total	0.000	0 244	E 407	000	24 242	2 200	024	000	E 4 274	F 434		2 524	20 404
2001 5-Month Total 2000 5-Month Total	9.882 9.376	8.341 8.071	5.107 5.158	.982 1.117	24.312 23.721	3.289 3.271	031 024	.980 1.354	^E 1.371 ^E 1.357	^E .131 ^E .126	^E .053 ^E .051	2.534 2.888	30.104 29.856
2000 J-MOHUI TOLAI	3.370	0.071	3.130	1.117	23.121	3.211	024	1.334	1.337	.120	.001	2.000	23.030

a End-use consumption, and electric utility and nonutility 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.
 f Beginning in 1989, includes electricity generated by nonutility nuclear units.
 R=Revised. NA=Not available. E=Estimate. (s)=Less than +0.5 trillion Btu and greater than -0.5 trillion Btu.

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.

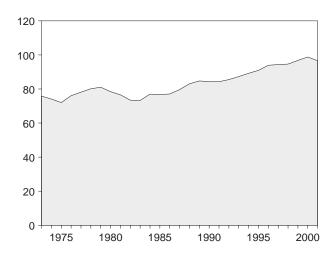
Web Page: http://www.eia.doe.gov/emeu/mer/overview.html.

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: Tables 8.1 and A6. Hydroelectric Pumped Storage: Tables 7.2 and A6. Renewable Energy: Tables 10.2, 10.3a, and 10.3b

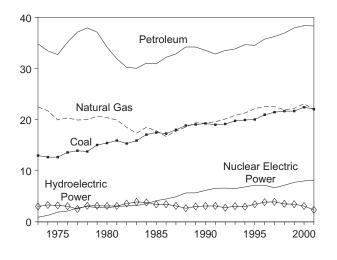
Figure 1.3 Energy Consumption

(Quadrillion Btu)

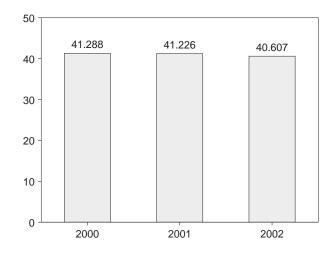
Total, 1973-2001



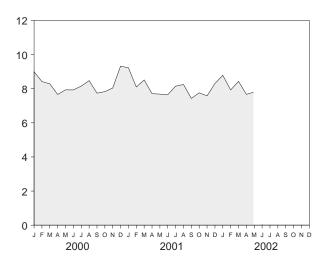
By Major Sources, 1973-2001



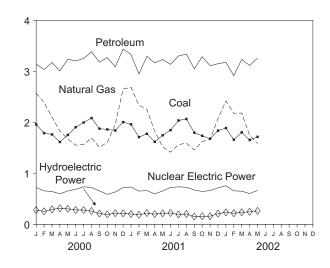
Total, January-May



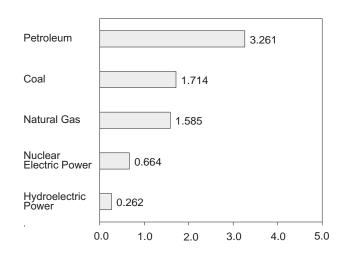
Total, Monthly



By Major Sources, Monthly



By Major Sources, May 2002



Note: Because vertical scales differ, graphs should not be compared. Web Page: http://www.eia.doe.gov/emeu/mer/overview.html. Source: Table 1.4.

Table 1.4 Energy Consumption by Source

	Fossil Fuels			Renewable Energy ^a								
		FOSSIII	rueis	1	Hydro-	Reflewable Effergy					4	
	Coal	Natural Gas ^b	Petro- leum ^c	Total ^d	Nuclear Electric Power	electric Pumped Storage ^e	Conventional Hydroelectric Power	Wood, Waste, Alcohol ^f	Geo- thermal	Solar and Wind	Total	Total ^f
1072 Total	12.971	22.512	34.840	70.316	0.910	(g)	3.010	1.529	0.043	NA	4.581	75.808
1973 Total 1974 Total	12.663	21.732	33.455	67.906	1.272	(9)	3.309	1.540	.053	NA NA	4.902	74.080
1975 Total	12.663	19.948	32.731	65.355	1.900	(g)	3.219	1.499	.070	NA	4.788	72.042
1976 Total	13.584	20.345	35.175	69.104	2.111	(g)	3.066	1.713	.078	NA	4.857	76.072
1977 Total	13.922	19.931	37.122	70.989	2.702	(g)	2.515	1.838	.077	NA	4.431	78.122
1978 Total	13.766	20.000	37.965	71.856	3.024	(g)	3.141	2.038	.064	NA	5.243	80.123
1979 Total	15.040	20.666	37.123	72.892	2.776	(g)	3.141	2.152	.084	NA	5.377	81.044
1980 Total	15.423	20.394	34.202	69.984	2.739	(g)	^E 3.118	2.485	.110	NA	5.712	78.435
1981 Total	15.908	19.928	31.931	67.750	3.008	(g)	E 3.105	2.590	.123	NA	5.818	76.569
1982 Total	15.322	18.505	30.231	64.036	3.131	(g)	E 3.572	2.615	.105	NA	6.292	73.440
1983 Total	15.894	17.357 18.507	30.054	63.290	3.203	(g) (g)	E 3.899 E 3.800	2.831 2.880	.129 .165	(s)	6.860	73.317
1984 Total	17.071 17.478	17.834	31.051 30.922	66.617 66.221	3.553 4.149	(9)	E 3.398	E 2.864	.165	(s)	6.845 6.460	76.972 76.778
1985 Total 1986 Total	17.260	16.708	32.196	66.148	4.471	(9)	E 3.446	E 2.841	.219	(s) (s)	6.507	77.065
1987 Total	18.008	17.744	32.865	68.626	4.906	(g)	E 3.117	€ 2.823	.229	(s)	6.170	79.633
1988 Total	18.846	18.552	34.222	71.660	5.661	(g)	^E 2.662	€ 2.937	.217	(s)	5.817	83.068
1989 Total	h19.043	19.384	34.211	72.618	ⁱ 5.677	(g)	3.014	^E 3.060	.334	.083	6.492	84.716
1990 Total	19.253	19.296	33.553	72.027	6.162	0 3 6	3.146	^E 2.660	.355	.094	6.254	84.344
1991 Total	18.998	19.606	32.845	71.519	6.580	047	3.159	^E 2.700	.363	.097	6.320	84.298
1992 Total	19.152	20.131	33.527	72.897	6.608	043	2.818	E 2.845	.374	.097	6.134	85.513
1993 Total	19.763	20.827	33.841	74.508	6.520	042	3.119	2.803	.387	.102	6.410	87.300
1994 Total	19.933	21.288	34.670	76.089	6.838	035	2.993	2.938	.391	.107	6.429	89.213
1995 Total	20.025 20.957	22.163 22.559	34.553 35.757	76.924 79.406	7.177 7.168	028 032	3.481 3.892	3.066	.333 .346	.106	6.987 7.473	90.943 93.931
1996 Total 1997 Total	21.464	22.539	36.266	80.415	6.678	032	3.961	3.126 3.004	.322	.110 .107	7.473	94.340
1998 Total	21.667	21.937	36.934	80.652	7.157	042	3.569	2.976	.322	.107	6.977	94.623
1999 Total	21.677	22.203	37.960	81.990	7.736	063	3.512	^E 3.259	.335	.119	7.226	96.767
2000 January	4.050	0.570	2 4 4 4	7.000	700	005	F 005	F 077	F 007	E 040	500	0.004
2000 January	1.959 1.788	2.573 2.389	3.141 3.033	7.686 7.228	.722 .655	005 004	E .285 E .257	E .277 E .260	E .027 E .024	E.010 E.009	.599 .550	8.991 8.419
February March	1.762	2.309	3.173	7.226	.643	004	E .298	E .278	E .024	E.010	.610	8.285
April	1.613	1.828	3.006	6.460	.598	004	E.316	E.268	E .025	E.011	.619	7.662
May	1.751	1.674	3.237	6.676	.653	005	E.308	E .275	E .026	E.011	.620	7.932
June	1.904	1.551	3.204	6.670	.686	006	E .286	E.266	E.026	E.011	.588	7.929
July	1.996	1.564	3.252	6.831	.735	003	E.283	E.279	E 027	E 010	.600	8.151
August	2.083	1.694	3.384	7.183	.722	004	E .264	E.278	± 028	[⊥] .011	.581	8.470
September	1.875	1.512	3.179	6.582	.654	007	E .217	E.268	E.027	E.010	.522	7.740
October	1.860	1.607	3.269	6.744	.587	004	E.197	E.279	E.028	E.010	.515	7.827
November	1.839	1.956	3.088	6.893	.633	004	E .221	E .271	E.028	E.010	.530	8.039
December	2.003	2.652	3.437	8.084	.721	005	E.219	E.278	E.029	E.009	.536	9.322
Total	22.432	23.111	38.404	84.094	8.009	057	^E 3.152	^E 3.276	^E .319	E.121	6.868	98.775
2001 January	1.960	R 2.687	3.329	7.984	.730	006	E.208	E.285	E.029	E.009	.530	9.223
February	1.709	R 2.334	2.947	R 6.988	.651	005	E.191	E.254	E.026	E.008	.479	R 8.101
March	1.774	2.254	3.293	R 7.327	.660	006	E .225	E .280	E.027	E.011	.543	8.512
April	1.618	R 1.823	3.164	R 6.617	.595	006	E .205	E .272	E .025	E.013	.515	R 7.709
May	1.745	R 1.520	3.231	R 6.508	.654	008		E .280	E .024	E.013	.539	R 7.681
June	1.846 2.036	^R 1.414 ^R 1.563	3.137 3.301	^R 6.406 ^R 6.906	.723 .735	009 010	E .231 E .201	E .274 E .285	E .025 E .026	E .013 E .012	.543 .525	^R 7.651 ^R 8.145
July	2.036	R 1.590	3.339	R 7.005	.735	010 010	E .201	E .285	E .026	E.012		R 8.245
August September	1.797	R 1.458	3.049	R 6.305	.673	010	E.162	E .276	E .026	E.012	.533 .475	R 7.431
October	1.735	R 1.624	3.285	R 6.649	.643	010	E .164	E .288	E .026	E.011	.489	R 7.758
November	1.679	R 1.664	3.110	R 6.457	.662	008	E 167	E .278	E.026	E.009	.480	R 7.579
December	1.837	2.073	3.149	7.069	.716	007	_ ^E .217	E .286	E.027	E.010	.539	R 8.305
Total	21.800	R 22.005	38.333	R 82.221	8.167	091	E 2.404	€ 3.342	€.312	E.131	6.189	R 96.339
2002 January	R 1.887	R 2.416	3.176	R 7.486	.755	007	E.240	E.287	E.027	E.007	.562	R 8.783
February	R 1.659	R 2.177	2.915	R 6.759	.656	R006	RE .222	RE .274	RE .023	RE .010	R .529	R 7.926
March	R 1.803	R 2.182	3.234	R 7.230	R .649	R006	RE .241	RE 285	RE .025	RE .014	R.565	R 8.427
April	R 1.653	R 1.743	3.114	R 6.516	R .603	R007	RE 252	RE .277	RE .023	RE .016	R .568	R 7.668
May	1.714	^F 1.585	3.261	6.564	.664	007	E.269	E.287	E.022	E.018	.596	7.803
5-Month Total	8.715	E 10.102	15.699	34.554	3.327	033	E 1.223	E 1.411	E.120	€.065	2.820	40.607
2001 5-Month Total 2000 5-Month Total	8.806 8.873	10.618 10.566	15.964 15.590	35.424 35.099	3.289 3.271	031 024	E 1.051 E 1.464	E 1.371 E 1.357	^E .131 ^E .126	^E .053 ^E .051	2.605 2.997	41.226 41.288

^a End-use consumption, electric utility and nonutility electricity net generation,

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

and net imports of electricity.

b Includes supplemental gaseous fuels. For 1990-1999, annual values also include natural gas used by vehicles, whereas monthly values do not. See Table c Petroleum products supplied, including natural gas plant liquids and crude oil

burned as fuel.

d Includes coal coke net imports and electricity net imports from fossil fuels. See

Pumped storage facility production minus energy used for pumping.
 Alcohol (ethanol blended into motor gasoline) is included in both "Petroleum" and "Alcohol," but is counted only once in total energy consumption.
 Included in conventional hydroelectric power.

h Beginning in 1989, includes coal consumed by "Other Power Producers." See

Table 6.2.

Beginning in 1989, includes electricity generated by nonutility nuclear units.

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

Notes: See Note 2 at end of section.

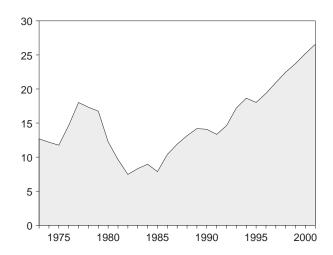
Totals may not equal sum of components due to independent rounding. Geographic coverage is the 50 States and the District of Columbia.

Sources: Coal: Tables 6.1 and A5. Natural Gas: Tables 4.1 and A4. Petroleum: Tables 3.1a and A3. Nuclear Electric Power: Tables 8.1 and A6. Hydroelectric Pumped Storage: Tables 7.2 and A6. Renewable Energy: Table 10.1.

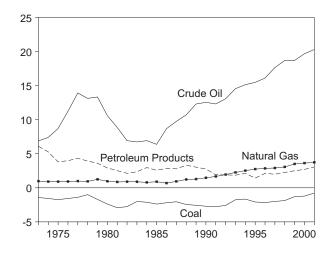
Figure 1.4 Energy Net Imports

(Quadrillion Btu, Except as Noted)

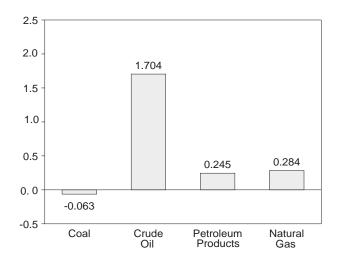
Total, 1973-2001



By Major Sources, 1973-2001

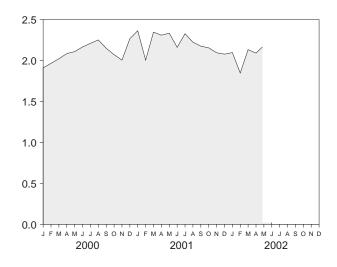


By Major Sources, May 2002

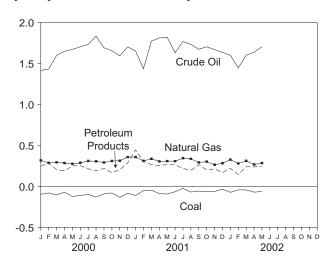


Note: Because vertical scales differ, graphs should not be compared. Web Page: http://www.eia.doe.gov/emeu/mer/overview.html. Sources: Tables 1.4 and 1.5.

Total, Monthly



By Major Sources, Monthly



As Share of Consumption, January-May

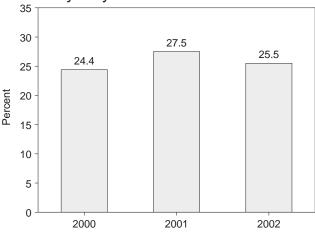


Table 1.5 Energy Net Imports by Source

					Fossil Fue	els			Ren	ewable Ener	gy	
									Electr	icity ^a		
		Coal	Coal Coke	Natural Gas	Crude Oil ^b	Petroleum Products ^C	Electricityd	Total	Hydro- power ^e	Geo- thermal	Total	Total
1973 Total		1.422	-0.007	0.981	6.883	6.097	(f)	12.531	0.148	(^f _f)	0.148	12.680
1974 Total		·1.568 ·1.738	.056 .014	.907 .904	7.389 8.708	5.273 3.800	\f\	12.058 11.688	.133 .064	\ \ \	.133 .064	12.190 11.752
1975 Total 1976 Total		1.736	.000	.922	11.221	3.982	(f)	14.559	.089	} _f {	.089	14.648
1977 Total		1.401	.015	.981	13.921	4.321	(1)	17.837	.182	(f)	.182	18.019
1978 Total	-	1.004	.125	.941	13.125	3.932	\f\	17.118	.204	(†)	.204	17.323
1979 Total		1.702	.063	1.243	13.328	3.603	(†)	16.535	.211	(†)	.211	16.746
1980 Total	······ -	·2.391 ·2.918	035 016	.957 .857	10.586 8.854	2.912 2.522	(f)	12.030 9.298	.217 .347	(;)	.217 .347	12.247 9.646
1981 Total 1982 Total		2.768	022	.898	6.917	2.128	\f\	7.153	.306	\f\	.306	7.460
1983 Total	-	2.013	016	.885	6.731	2.351	ζf;	7.938	.372	(f)	.372	8.310
1984 Total		2.119	011	.792	6.918	2.970	(†)	8.549	.414	(f)	.414	8.963
1985 Total		2.389	013	.896	6.381	2.570	(†)	7.445	.428	(†)	.428	7.872
1986 Total		·2.193 ·2.049	017 .009	.686 .937	8.676	2.855	(f)	10.007 11.428	.375 .483	(¦)	.375 .483	10.382 11.911
1987 Total 1988 Total		·2.049 ·2.446	.009	.937 1.221	9.748 10.698	2.784 3.308	{ ; }	12.821	.483	(f)	.483	13.149
1989 Total		2.566	.030	1.278	12.296	3.029	050	14.018	.159	`.011	.171	14.188
1990 Total		2.705	.005	1.464	12.536	2.757	080	13.977	.098	.011	.110	14.087
1991 Total	-	2.769	.010	1.666	12.308	1.912	.059	13.186	.138	.015	.153	13.339
1992 Total		2.587	.035	1.941	13.065	1.895	.053	14.401	.201	.019	.219	14.621
1993 Total	-	·1.758 ·1.657	.027 .058	2.255 2.518	14.542 15.131	1.854 2.126	.050 .140	16.970 18.316	.227 .309	.018 .027	.246 .337	17.215 18.652
1994 Total 1995 Total		2.081	.061	2.745	15.131	1.422	.121	17.737	.274	.027	.293	18.030
1996 Total		2.165	.023	2.847	16.108	2.119	.109	19.041	.300	.014	.313	19.354
1997 Total		2.006	.046	2.904	17.648	1.993	.109	20.694	.244	.000	.244	20.938
1998 Total		1.874	.067	3.064	18.684	2.252	.048	22.241	.224	.001	.225	22.466
1999 Total		1.298	.058	3.500	18.686	2.493	.092	23.530	.207	.001	.208	23.738
2000 January		098	.004	.316	1.415	.244	E.009	1.889	E .021	.000	E.021	1.910
February		081	.007	.286	1.432	.285	E .011	1.941	E .024	.000	E .024	1.965
March		106 071	.006 .006	.293 .284	1.598 1.648	.203 .190	E.007 E.006	2.001 2.063	E .021 E .020	.000 .000	E .021 E .020	2.021 2.084
April May		125	.008	.274	1.672	.248	E .007	2.084	E .024	.000	E .024	2.108
June		111	.004	.287	1.703	.252	E.006	2.141	E.024	.000	E .024	2.165
July		099	.006	.310	1.733	.214	E.014	2.178	E.032	.000	E .032	2.209
August		132	.008	.305	1.833	.191	E.014	2.219	E.033	.000	E .033	2.251
September		092	.007	.291	1.692	.218	E .009 E .003	2.124	E .025 E .014	.000	E .025	2.149
October November		081 134	.006 .004	.309 .312	1.655 1.593	.166 .203	E .003	2.057 1.984	E .014	.000 .000	E .014 E .020	2.071 2.004
December		084	.000	.357	1.702	.287	E007	2.255	E .012	.000	E .012	2.266
Total		1.215	.065	3.623	19.676	2.701	.083	24.935	.269	.000	.269	25.204
			000	0.57	4.050	444	F 004	0.040	F 044	000	F 044	0.000
2001 January		111 053	.003 .002	.357 .310	1.652 1.437	.444 .305	E .004 E004	2.349 1.997	E .014 E .007	.000 .000	E .014 E .007	2.363 2.004
February March		033	.002	.336	1.772	.266	E.003	2.333	E.013	.000	E .013	2.346
April		089	.005	.304	1.812	.253	E .006	2.292	E.017	.000	E .017	2.309
May		094	.004	.308	1.820	.267	E.008	2.313	E.020	.000	E.020	2.333
June		066	.003	.307	1.630	.263	E .007	2.143	E.017	.000	E .017	2.160
July		025	.000 .004	.344 .335	1.768	.218 .196	E .007 E .008	2.311	E .016 E .018	.000	E .016 E .018	2.327
August September		070 058	.004	.335	1.733 1.673	.196	E008	2.206 2.169	E.005	.000 .000	E.005	2.223 2.175
October		063	.004	E.301	1.704	.199	E .002	2.147	E .007	.000	E .007	2.154
November		064	.002	E.263	1.669	.213	E.002	2.085	E.008	.000	E.008	2.094
December		035	.001	E.282	1.635	.168	E.009	2.060	E .017	.000	E .017	2.077
Total		776	.032	€ 3.737	20.305	3.056	.051	26.404	.159	.000	.159	26.564
2002 January		073	001	.326	1.600	.220	E.008	2.080	E.017	.000	E.017	2.096
February		043	.003	.278	1.445	.144	E .006	1.834	E .013	.000	E .013	1.847
March		044 071	.008 .001	.311 RE .267	1.601 1.637	.239 .237	E .004 E .004	2.119 R 2.076	E .013 E .014	.000 .000	E .013 E .014	2.132 R 2.090
April May		063	.001	E .284	1.704	.237	E .000	2.076	E.007	.000	E.007	2.182
5-Month Tota		294	.015	E 1.467	7.987	1.085	E .022	10.284	€ .064	.000	E .064	10.348
2001 5-Month Tota		205	047		0.400	4 500	^E .018	44 000	^E .071	000	^E .071	11.354
ZUUT D-MONTH LOD	ai	395	.017	1.615	8.492	1.536	~ .U18	11.283	~ .0/1	.000	0/1	11.354

^a Through 1988, all electricity imports and exports are included in "Hydropower." From 1989, includes only electricity imports and exports derived from hydroelectric power or geothermal energy.

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

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

trillion Btu.

components.

d Electricity net imports from fossil fuels. May include some nuclear-generated e Conventional hydroelectric power.

f Included in "Hydropower."

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

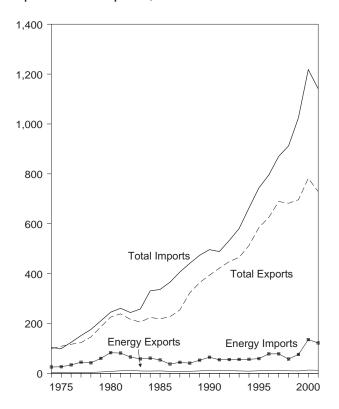
trillion Btu.
Notes: See Notes 3 and 4 at end of section. Net imports equal imports minus exports. Minus sign indicates exports are greater than imports. Totals may not equal sum of components due to independent rounding. Geographic coverage is the 50 States and the District of Columbia.

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. Fossil Fuel Electricity: Derived from Table 7.1 sources and Table A6. Renewable Energy: Table 10.3b.

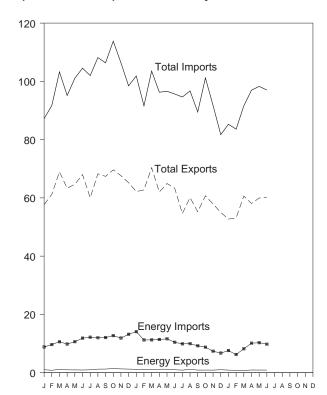
Figure 1.5 Merchandise Trade Value

(Billion Dollars)

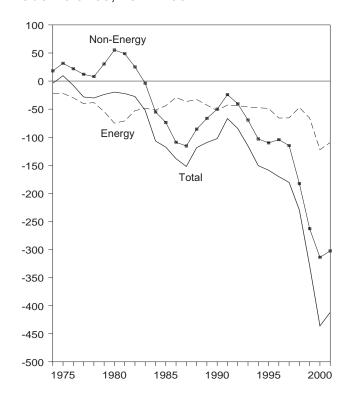
Imports and Exports, 1974-2001



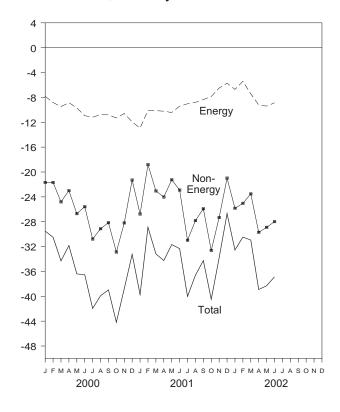
Imports and Exports, Monthly



Trade Balance, 1974-2001



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 1.6.

Table 1.6 Merchandise Trade Value

(Million Dollars)

	Petroleum ^a				Energy ^b		Non-		Total Merchand	ise
	Exports	Imports	Balance	Exports	Imports	Balance	Energy 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 52,428	-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 54,347	-44,396	12,081 11,254	54,629 55,256	-42,548	-24,175	421,730	488,453	-66,723
1992 Total 1993 Total	6,412 6,215	51,217 51,046	-44,805 -44,831	9,756	55,900	-44,002 -46,144	-40,500 -69,425	448,164 465,091	532,665 580,659	-84,501 -115,568
1994 Total	5,659	50,835	-45,176	8,911	56,391	-46,144 -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	12,181	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 January	804	7,976	-7,172	1,004	8,825	-7,821	-21,689	57,679	87,188	-29,510
February	659	8,807	-8,148	827	9,646	-8,819	-21,689	61,179	91,688	-30,508
March	867	9,737	-8,870	1,119	10,604	-9,485	-24,811	68,948	103,244	-34,296
April	795	8,962	-8,167	973	9,815	-8,842	-22,996	63,302	95,141	-31,838
May	696	9,621	-8,925	949	10,638	-9,689	-26,705	64,673	101,067	-36,394
June	673	10,512	-9,839	907	11,849	-10,942	-25,583	68,002	104,527	-36,525
July	726	10,707	-9,981	998	12,169	-11,171	-30,786	60,029	101,986	-41,957
August	929	10,527	-9,598	1,209	11,990	-10,781	-29,130	68,255	108,166	-39,911
September	970	10,642 11,206	-9,672	1,241 1,424	12,050 12,722	-10,809 -11,298	-28,156 -32,879	67,391	106,355 113,812	-38,965
October November	1,166 992	10,197	-10,040 -9,205	1,424	11,882	-10,586	-32,679 -28,195	69,635 67,614	106,395	-44,177 -38,781
December	915	10,197	-9,205 -9,441	1,232	13,175	-10,366	-26, 195 -21,299	65,211	98,452	-33,242
Total	10,192	119,251	-109,059	13,179	135,367	-122,188	-313,916	781,918	1,218,022	-436,104
	*	•	•	-	•	•	,	,		•
2001 January	804 690	10,538 8,856	-9,734 -8,166	1,148 1,141	14,087 11,226	-12,939 -10,085	-26,769 -18,811	62,161 62,743	101,869 91,639	-39,708 -28,896
February March	757	9,226	-8,469	1,129	11,256	-10,083	-23,052	70,358	103,536	-33,179
April	774	9,430	-8,656	1,179	11,398	-10,127	-24,031	62,015	96,265	-34,250
May	805	9,727	-8,922	1,179	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	636	6,490	-5,854	877	7,589	-6,712	-25,844	52,720	85,276	-32,556
February	664	5,392	-4,728	809	6,224	-5,415	-25,050	53,121	83,586	-30,465
March	607	6,888	-6,281	773	8,204	-7,431	-23,517	60,631	91,580	-30,948
April	689	9,069	-8,380	915	10,117	-9,202	-29,715	58,062	96,978	-38,917
May	671	9,191	-8,520	895	10,292	-9,397	R -28,908	R 59,960	R 98,266	R -38,305
June	631	8,595	-7,964	893	9,770	-8,877	-27,987	60,155	97,019	-36,864
6-Month Total	3,898	45,625	-41,727	5,161	52,196	-47,034	-161,021	344,649	552,703	-208,055
2001 6-Month Total 2000 6-Month Total	4,579 4,494	56,873 55,615	-52,294 -51,121	6,795 5,780	70,009 61,377	-63,214 -55,598	-136,822 -143,473	385,541 383,783	585,578 582,855	-200,036 -199,071

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

b Petroleum, coal, natural gas, and electricity.

customs territory, which comprises the 50 States, the District of Columbia, Puerto Rico, and the Virgin Islands.

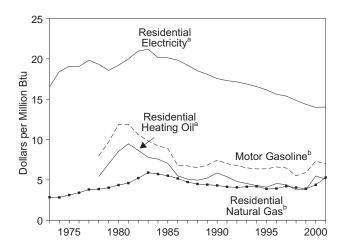
Web Page: http://www.eia.doe.gov/emeu/mer/overview.html. Source: U.S. Department of Commerce, Bureau of the Census, Foreign Trade Division. For details, see "Sources for Table 1.6" at the end of this

R=Revised.

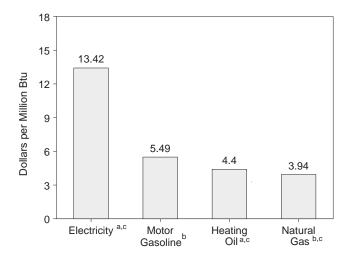
Notes: Monthly data are not adjusted for seasonal variations. See Note Totals may not equal sum of components due to The U.S. import statistics reflect both government and 5 at end of section. independent rounding. nongovernment imports of merchandise from foreign countries into the U.S.

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

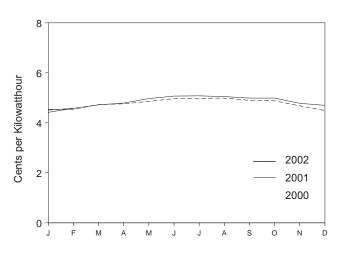
Costs, 1973-2001



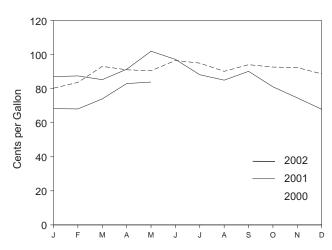
Costs, February 2002 Elec-



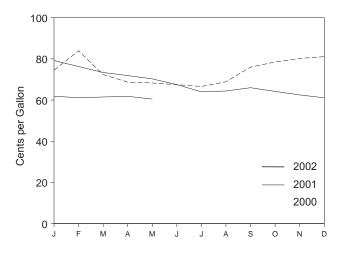
Residential Electricity^a, Monthly



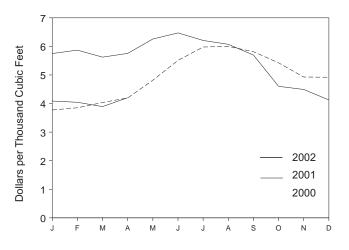
Motor Gasoline^a, Monthly



Residential Heating Oil^a, Monthly



Residential Natural Gas^b, Monthly



Note: Because vertical scales differ, graphs should not be compared. Web Page: http://www.eia.doe.gov/emeu/mer/overview.html. Source: Table 1.7.

^aIncludes taxes. ^bExcludes taxes. ^cResidential

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

	Consumer Price Index (Urban) ^a	Motor G	asoline ^b		dential ng Oil ^c		lential al Gas ^b		lential ricity ^c
	Index 1982-1984=100	Cents per Gallon	Dollars per Million Btu	Cents per Gallon	Dollars per Million Btu	Cents per Thousand Cubic Feet	Dollars per Million Btu	Cents per Kilowatthour	Dollars pe 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 January	168.8	80.3	6.47	74.5	5.37	377.4	3.67	4.54	13.30
February	169.8	83.7	6.75	83.9	6.05	385.2	3.75	4.54	13.31
March	171.2	93.1	7.51	72.4	5.22	403.6	3.93	4.73	13.85
April	171.3	91.1	7.35	68.7	4.95	419.7	4.08	4.76	13.94
May	171.5	90.5	7.30	68.3	4.93	481.6	4.69	4.86	14.25
June	172.4	96.6	7.79	67.5	4.86	551.0	5.36	4.97	14.55
July	172.8	95.0	7.66	66.6	4.80	597.8	5.82	4.98	14.60
August	172.8	90.2	7.27	68.9	4.97	600.1	5.84	4.99	14.64
September	173.7	94.1	7.59	76.0	5.48	581.5	5.66	4.90	14.36
October	174.0	92.7	7.47	78.5	5.66	542.5	5.28	4.88	14.30
November	174.1	92.4	7.45	80.2	5.79	492.8	4.79	4.68	13.72
December	174.0	88.7	7.15	81.1	5.85	492.0	4.79	4.49	13.17
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	^R 575.1	^R 5.61	4.42	12.96
February	175.8	87.5	7.05	76.3	5.50	R 587.0	R 5.72	4.58	13.42
March	176.2	85.3	6.88	73.4	5.30	562.4	5.48	4.72	13.82
April	176.9	91.4	7.37	71.9	5.18	575.5	5.61	4.79	14.03
May	177.7	102.0	8.22	70.3	5.07	R 625.8	^R 6.10	4.97	14.56
June	178.0	97.2	7.84	67.5	4.87	R 647.2	R 6.31	5.07	14.87
July	177.5	88.2	7.11	64.0	4.61	R 620.8	6.05	5.08	14.88
August	177.5	85.0	6.85	64.4	4.64	R 607.3	R 5.92	5.05	14.81
September	178.3	90.2	7.27	66.0	4.76	569.8	5.55	4.99	14.61
October	177.7	81.1	6.54	64.2	4.63	460.3	4.49	4.99	14.61
November	177.4	74.6	6.02	62.5	4.51	449.3	4.38	4.78	14.01
December	176.7	67.9	5.47	61.1	4.41	R 412.6	R 4.02	4.70	13.77
Average	177.1	86.4	6.97	70.6	5.09	543.8	5.30	4.84	14.18
002 January	177.1	68.3	5.50	61.9	4.47	R 408.8	3.98	4.51	13.22
February	177.8	68.1	5.49	61.1	4.40	404.4	3.94	R 4.58	R 13.42
March		74.0	5.97	61.5	4.43	389.3	3.79	NA	NA
April	179.8	83.0	6.69	R 61.8	R 4.46	420.5	4.10	NA	NA
May	179.8	83.9	6.76	60.5	4.36	NA	NA	NA	NA
		00.0	0.70	00.0	7.00	11/7	11/7	11/7	

^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.

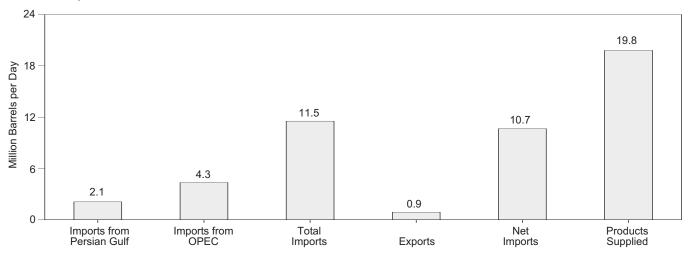
Geographic coverage is the 50 States and the District of Columbia.

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: 1973-1997—Economic Report of the President, February 2002, Table B-60. 1998 forward—Council of Economic Advisers, Economic Indicators, July 2002, "Consumer Prices - All Urban Consumers."

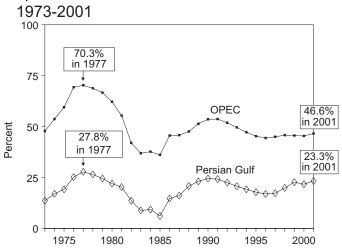
Conversion Factors: Tables A1, A3, A4, and A6.

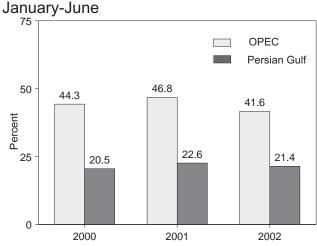
Figure 1.7 Overview of U.S. Petroleum Trade

Overview, June 2002

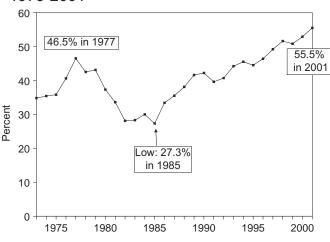


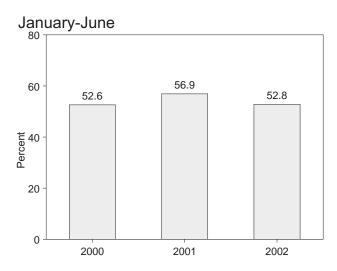
Imports from OPEC and the Persian Gulf as a Share of Total Imports





Net Imports as Share of Products Supplied 1973-2001





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

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

Table 1.8 Overview of U.S. Petroleum Trade

									hare of s Supplied			nare of mports
	Imports from Persian Gulf ^a	Imports from OPEC ^b	Imports	Exports	Net Imports	Products Supplied	Imports from Persian Gulf ^a	Imports from OPEC ^b	Imports	Net Imports	Imports from Persian Gulf ^a	Imports from OPEC ^b
			Thousand E	Barrels per	Day				Per	cent		
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 Average1978 Average	2,448 2,219	6,193 5,751	8,807 8,363	243 362	8,565 8,002	18,431 18,847	13.3 11.8	33.6 30.5	47.8 44.4	46.5 42.5	27.8 26.5	70.3 68.8
1979 Average	2,069	5,637	8,456	471	7,985	18,513	11.0	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 1,573	4,247 4,002	8,996	942 949	8,054	17,718 17,725	9.8 8.9	24.0 22.6	50.8	45.5 44.5	19.2 17.8	47.2 45.3
1995 Average1996 Average	1,604	4,002	8,835 9,478	981	7,886 8,498	17,725 18,309	8.8	23.0	49.8 51.8	46.4	16.9	45.3 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 January	2,048	4,169	10,140	1,006	9,134	19,026	10.8	21.9	53.3	48.0	20.2	41.1
February	2,362	4,907	11,003	870	10,133	19,635	12.0	25.0	56.0	51.6	21.5	44.6
March	2,204	5,054	11,052	1,159	9,893	19,218	11.5	26.3	57.5	51.5	19.9	45.7
April	2,400	5,171	11,558	1,131	10,427	18,816	12.8	27.5	61.4	55.4	20.8	44.7
May	2,218	4,904	11,415	856	10,559	19,605	11.3	25.0	58.2	53.9	19.4	43.0
June	2,586	5,558	12,032	925	11,107	20,054	12.9	27.7	60.0	55.4	21.5	46.2
July	2,612 2,825	5,178 5,904	11,588	900 1,073	10,688 11,099	19,696 20,496	13.3 13.8	26.3 28.8	58.8 59.4	54.3 54.2	22.5 23.2	44.7 48.5
August	2,827	5,470	12,173 11,900	1,073	10,841	19,899	14.2	27.5	59. 4 59.8	54.5	23.2	46.0
September October	2,504	5,307	11,290	1,039	9,998	19,798	12.6	26.8	57.0	50.5	22.2	47.0
November	2,482	5,236	11,309	1,108	10,201	19,328	12.8	27.1	58.5	52.8	21.9	46.3
December	2,791	5,575	12,053	1,095	10,958	20,814	13.4	26.8	57.9	52.6	23.2	46.3
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 2,901	6,080 5,641	12,529 11.732	1,069 976	11,461 10,756	19,501 19.561	16.0 14.8	31.2 28.8	64.2 60.0	58.8 55.0	24.9 24.7	48.5 48.1
June July	2,736	5,509	11,732	976 879	10,756	19,561	13.7	28.8 27.7	59.0	55.0 54.6	23.3	46.8
August	2,730	5,289	11,700	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	15.4	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	2,694	5,001	10,847	861	9,986	19,170	14.1	26.1	56.6	52.1	24.8	46.1
February	2,470	4,733	10,769	1,123	9,646	19,475	12.7	24.3	55.3 56.1	49.5	22.9	43.9
March	2,505	4,891	10,957	853	10,104	19,516	12.8	25.1	56.1	51.8	22.9	44.6
April May	2,445 2,175	4,552 4,463	11,524 11,612	890 910	10,635 10,702	19,419 19,678	12.6 11.1	23.4 22.7	59.3 59.0	54.8 54.4	21.2 18.7	39.5 38.4
May June	2,175	4,463	11,532	880	10,702	19,878	10.6	21.9	59.0 58.2	53.8	18.7	37.7
6-Month Average	2,091 2,397	4,666	11,332 11,211	916	10,653 10,294	19,511	12.3	23.9	57.5	52.8	21.4	41.6
2001 6-Month Average 2000 6-Month Average	2,756 2,300	5,718 4,957	12,217 11,196	980 992	11,237 10,204	19,743 19,389	14.0 11.9	29.0 25.6	61.9 57.7	56.9 52.6	22.6	46.8 44.3

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

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.

Balliani, Ilair, Ilair, Ruwaii, Gatai, Saudi Alabia, and the Office Alabia

Emirates.

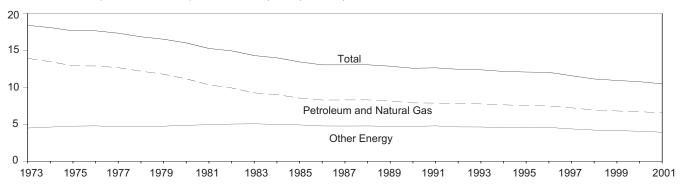
Dorganization of Petroleum Exporting Countries. See Glossary.

Notes: Readers of Table 1.8 may be interested in a feature article,

"Measuring Dependence on Imported Oil," that was published in the August 1995 Monthly Energy Review. Petroleum is crude oil, lease condensate, unfinished oils, petroleum products, natural gas plant liquids, and

Figure 1.8 **Energy Consumption per Dollar of Gross Domestic Product**

(Thousand Btu per Chained (1996) Dollar)



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

Table 1.9 **Energy Consumption per Dollar of Gross Domestic Product**

(Seasonally Adjusted at Annual Rates)

	End	ergy Consumptio	n	Cross	Energy Consumption per Dollar of GDP				
	Petroleum and Natural Gas	Other Energy ^a	Total	Gross Domestic Product (GDP)	Petroleum and Natural Gas	Other Energy ^a	Total		
		Quadrillion Btu		Billion Chained (1996) Dollars	Thousand Btu per Chained (1996) Dollar				
973 Year	57.352	18.456	75.808	4,123.4	13.91	4.48	18.38		
974 Year	55.187	18.893	74.080	4,099.0	13.46	4.61	18.07		
975 Year	52.678	19.364	72.042	4,084.4	12.90	4.74	17.64		
976 Year	55.520	20.552	76.072	4,311.7	12.88	4.77	17.64		
977 Year	57.053	21.069	78.122	4,511.8	12.65	4.67	17.32		
778 Year	57.966	22.158	80.123	4,760.6	12.18	4.65	16.83		
779 Year	57.789	23.255	81.044	4,912.1	11.76	4.73	16.50		
980 Year	54.596	23.839	78.435	4,900.9	11.14	4.86	16.00		
981 Year	51.859	24.710	76.569	5,021.0	10.33	4.92	15.25		
982 Year	48.736	24.710	73.440	4,919.3	9.91	5.02	14.93		
983 Year	47.411	25.906	73.317		9.24	5.05	14.29		
				5,132.3	9.24	4.98			
984 Year	49.558	27.413	76.972	5,505.2			13.98		
85 Year	48.756	28.022	76.778	5,717.1	8.53	4.90	13.43		
86 Year	48.904	28.161	77.065	5,912.4	8.27	4.76	13.03		
187 Year	50.609	29.024	79.633	6,113.3	8.28	4.75	13.03		
188 Year	52.774	30.294	83.068	6,368.4	8.29	4.76	13.04		
89 Year	53.595	^{b c} 31.121	^{b c} 84.716	6,591.8	8.13	4.72	12.85		
90 Year	52.849	31.495	84.344	6,707.9	7.88	4.70	12.57		
91 Year	52.452	31.846	84.298	6,676.4	7.86	4.77	12.63		
92 Year	53.657	31.855	85.513	6,880.0	7.80	4.63	12.43		
93 Year	54.668	32.632	87.300	7,062.6	7.74	4.62	12.36		
94 Year	55.958	33.255	89.213	7,347.7	7.62	4.53	12.14		
95 Year	56.717	34.226	90.943	7,543.8	7.52	4.54	12.06		
96 Year	58.316	35.615	93.931	7,813.2	7.46	4.56	12.02		
97 Year	58.795	35.545	94.340	8,159.5	7.21	4.36	11.56		
998 Year	58.870	35.753	94.623	8,508.9	6.92	4.20	11.12		
999 Year	60.163	36.604	96.767	R 8,859.0	6.79	4.13	R 10.92		
000 1st Quarter	60.261	NA	NA	R 9,097.4	6.62	NA	NA		
2 nd Quarter	61.807	NA	NA	R 9,205.7	^R 6.71	NA	NA		
3 rd Quarter	60.819	NA	NA	^R 9,218.7	^R 6.60	NA	NA		
4 th Quarter	62.409	NA	NA	^R 9,243.8	^R 6.75	NA	NA		
Year	61.514	37.260	R 98.775	^R 9,191.4	R 6.69	R 4.05	R 10.75		
001 1 st Quarter	R 62.858	NA	NA	R 9,229.9	^R 6.81	NA	NA		
2 nd Quarter	R 60.725	NA	NA	^R 9,193.1	^R 6.61	NA	NA		
3 rd Quarter	^R 59.520	NA	NA	^R 9,186.4	^R 6.48	NA	NA		
4 th Quarter	^R 58.307	NA	NA	R 9,248.8	^R 6.30	NA	NA		
Year	R 60.338	36.001	R 96.339	R 9,214.5	^R 6.55	R 3.91	R 10.46		
02 1 st Quarter	R 60.087	NA	NA	R 9,363.2	R 6.42	NA	NA		

^a Coal, nuclear electric power, renewable energy, and pumped-storage hydroelectric power.

^b Beginning in 1989, includes electricity generated by nonutility nuclear

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

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

Sources: Energy Consumption: Table 1.4. Gross Domestic Product: 1973-2000—U.S. Department of Commerce, Bureau of Economic Analysis, Survey of Current Business, August 2002, Table 2A. 2001 forward—U.S. Department of Commerce, Bureau of Economic Analysis, BEA News Release, July 31, 2002, Table 3, which is available at website www.bea.doc.gov/bea/newsrel/gdp400p.htm.

units.

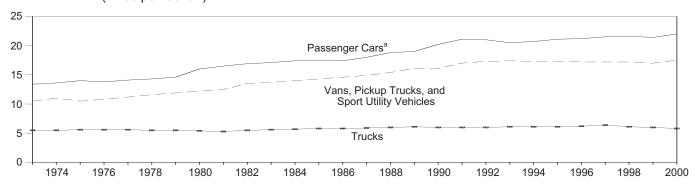
^c Beginning in 1989, includes coal consumed by "Other Power Producers."

See Table 6.2.

R=Revised. NA=Not available.

Figure 1.9 **Motor Vehicle Fuel Rates**

(Miles per Gallon)



^a Motorcycles are included through 1989. Web Page: http://www.eia.doe.gov/emeu/mer/overview.html.

Table 1.10 Motor Vehicle Mileage, Fuel Consumption, and Fuel Rates

	ı	Passenger Cars	a		ns, Pickup Truc Sport Utility Veh			Trucks ^c				es ^d
	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	10,157	533	19.0	11,676	724	16.1	22,926	3,776	6.1	10,932	688	15.9
1990	a10,504	^a 520	a 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 e	11,988	546	22.0	11,684	668	17.5	25,651	4,387	5.8	12,177	719	16.9

^a Motorcycles are included through 1989.

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, Table VM-1.

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

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

Includes buses and motorcycles, which are not shown separately.

e Preliminary.

Table 1.11 Heating Degree-Days by Census Division

			July 1 through July 31		
				Percent	Change
Census Divisions	Normal ^a	2001	2002	Normal to 2002	2001 to 2002
New England Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont	11	28	16	(°)	(°)
Middle Atlantic New Jersey, New York, Pennsylvania	6	5	0	(°)	(°)
East North Central Illinois, Indiana, Michigan, Ohio,			-		
West North Central Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota,	9	11	1	(°)	(°)
South Atlantic Delaware, Florida, Georgia, Maryland and the District of Columbia,	11	8	3	(°)	(°)
North Carolina, South Carolina, Virginia, West Virginia	0	0	0	(°)	(°)
East South Central Alabama, Kentucky, Mississippi, Tennessee	0	0	0	(°)	(°)
West South Central Arkansas, Louisiana, Oklahoma, Texas	0	0	0	(°)	(°)
Mountain Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming	19	2	1	(°)	(°)
Pacific ^b California, Oregon, Washington	24	13	4	(°)	(°)
U.S. Average ^b	9	7	2	(°)	(°)

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

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.

b Excludes Alaska and Hawaii.

 $^{^{\}rm C}$ Percent change is not meaningful: normal is less than 100 or ratio is incalculable.

⁽s)=Less than 0.5 percent and greater than -0.5 percent.

Table 1.12 Cooling Degree-Days by Census Division

		July ²	l through J	uly 31			Januar	Cumulative y 1 through		
				Percent	Change				Percent	Change
Census Divisions	Normala	2001	2002	Normal to 2002	2001 to 2002	Normal ^a	2001	2002	Normal to 2002	2001 to 2002
New England Connecticut, Maine, Massachusetts, New Hampshire,	470		0.17			0.47				
Rhode Island, Vermont	179	144	247	38	72	247	290	336	36	16
Middle Atlantic New Jersey, New York, Pennsylvania	247	214	321	30	50	391	410	521	33	27
East North Central Illinois, Indiana, Michigan, Ohio, Wisconsin	249	270	345	39	28	455	466	595	31	28
West North Central lowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota	325	381	390	20	2	608	653	706	16	8
South Atlantic Delaware, Florida, Georgia, Maryland and the District of Columbia, North Carolina, South Carolina, Virginia, West Virginia	412	373	448	9	20	1,078	1,100	1,253	16	14
, and the second	412	373	440	9	20	1,070	1,100	1,233	10	14
East South Central Alabama, Kentucky, Mississippi, Tennessee	403	412	438	9	6	906	943	1,039	15	10
West South Central Arkansas, Louisiana, Oklahoma, Texas	543	599	524	-4	-12	1,403	1,521	1,490	6	-2
Mountain Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming	337	375	410	22	9	678	854	882	30	3
Pacific ^b California, Oregon, Washington	190	177	198	4	12	336	403	363	8	-10
U.S. Average ^b	316	317	364	15	15	679	729	799	18	10

^a "Normal" is based on calculations of data from 1961 through 1990.

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.

b Excludes Alaska and Hawaii.

⁽s)=Less than 0.5 percent and greater than -0.5 percent.

Energy Overview Notes

- 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 electric utility and nonutility 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.
- 2. Energy Consumption: Includes consumption of fossil fuels (coal, natural gas, and petroleum), some secondary energy derived from fossil fuels (supplemental gaseous fuels, coal coke net imports, and electricity net imports from fossil fuels), nuclear electric power, pumped-storage hydroelectric power, and renewable energy. 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; electric utility and nonutility net electricity generation from conventional hydroelectric power, wood, waste, geothermal, solar, and wind; and net imports of electricity from hydroelectric power and geothermal energy. 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.
- **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 imports from fossil fuels), and renewable energy (electricity imports derived from hydroelectric power and geothermal energy). 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.
- **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 exports from fossil fuels), and renewable energy (electricity exports derived from hydroelectric power). 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.

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 along-side ship (f.a.s.) basis.

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

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

Sources for Table 1.6

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

Petroleum Exports

1974-1987: "U.S. Exports," FT410, December issues. 1988 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: "U.S. International Trade in Goods and Services," FT-900, monthly.

Petroleum Imports

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

1988 and 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: "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: "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,"

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

Sources for Tables 1.11 and 1.12

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

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

Section 2. Energy Consumption by Sector

U.S. total energy consumption in May 2002 was 7.8 quadrillion Btu, 2 percent higher than in May 2001.

Residential sector total consumption was 1.3 quadrillion Btu in May 2002, 2 percent higher than the May 2001 level. The sector accounted for 16 percent of total energy consumption.

Commercial sector total consumption was 1.3 quadrillion Btu in May 2002, 3 percent higher than the May 2001 level. The sector accounted for 17 percent of total energy consumption.

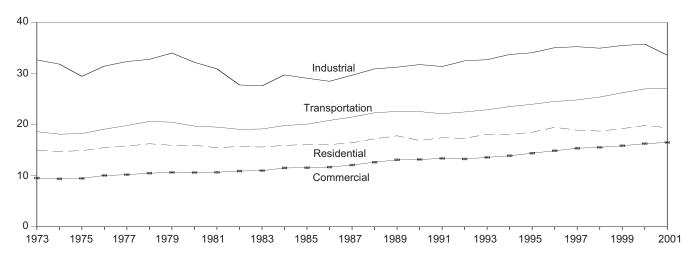
Industrial sector total consumption was 2.8 quadrillion Btu in May 2002, 1 percent higher than the May 2001 level. The sector accounted for 37 percent of total energy consumption.

Transportation sector total consumption was 2.4 quadrillion Btu in May 2002, 1 percent higher than the May 2001 level. The sector accounted for 30 percent of total energy consumption.

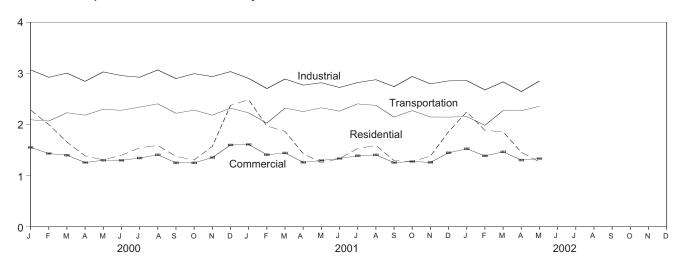
Electric power sector primary consumption was 2.8 quadrillion Btu in May 2002, 1 percent lower than the May 2001 level. Fossil fuels accounted for 64 percent of all primary energy consumed by the electric power sector; nuclear electric power 24 percent; and renewable energy 13 percent.

Figure 2.1 Energy Consumption by Sector

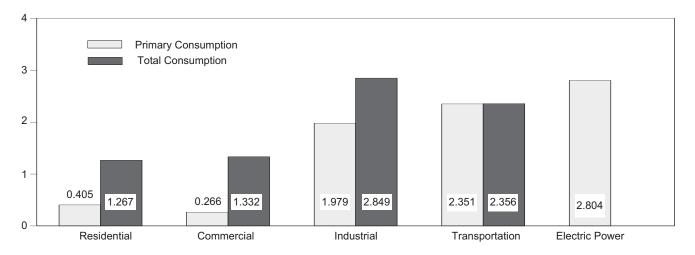
Total Consumption End Use, 1973-2001



Total Consumption End Use, Monthly



By Sector, May 2002



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.

Table 2.1 Energy Consumption by Sector

	End-Use Sectors ^a								Electric Power	
	Resid	ential	Comr	mercial	Indu	strial	Transp	ortation	Sectora	
	Primary	Total	Primary	Total	Primary	Total	Primary	Total	Primary	Totalb
973 Total	8.258	14.983	4.373	9.534	24.706	32.672	18.576	18.612	19.887	75.808
974 Total	7.948	14.745	4.201	9.374	23.783	31.835	18.086	18.119	20.055	74.080
975 Total	8.027	14.888	4.002	9.465	21.422	29.445	18.209	18.244	20.382	72.042
976 Total	8.431	15.493	4.310	10.038	22.652	31.434	19.065	19.099	21.607	76.072
977 Total	8.232	15.765	4.193	10.194	23.160	32.336	19.784	19.820	22.746	78.122
77 Total	8.309	16.249	4.233	10.194	23.245	32.770	20.580	20.615	23.755	80.123
78 Total										
79 Total	7.971	15.937	4.296	10.635	24.177	33.999	20.436	20.471	24.162	81.044
80 Total	7.533	15.938	4.068	10.613	22.640	32.189	19.658	19.696	24.538	78.435
81 Total	7.142	15.482	3.791	10.672	21.371	30.906	19.469	19.506	24.793	76.569
82 Total	7.206	15.704	3.816	10.906	19.079	27.756	19.032	19.070	24.303	73.440
83 Total	6.879	15.603	3.783	10.989	18.565	27.580	19.098	19.141	24.989	73.317
84 Total	7.036	15.927	3.945	11.510	20.175	29.724	19.761	19.809	26.053	76.972
85 Total	7.024	16.095	3.676	11.550	19.507	29.067	20.023	20.071	26.552	76.778
86 Total	6.842	16.087	3.617	11.684	19.100	28.474	20.768	20.818	26.735	77.065
87 Total	6.874	16.437	3.710	12.078	20.013	29.664	21.405	21.456	27.633	79.633
88 Total	7.280	17.213	3.918	12.640	20.926	30.899	22.261	22.313	28.681	83.068
89 Total	7.522	17.805	3.892	13.099	20.727	31.238	22.517	22.571	30.055	84.716
90 Total	6.494	16.884	3.742	13.168	21.111	31.743	22.488	22.541	30.502	84.344
	6.723		3.800		20.754	31.359	22.077		30.943	84.298
91 Total		17.427 17.300		13.382 13.264			22.419	22.130 22.471		
92 Total	6.916		3.834		21.679	32.472			30.660	85.513
93 Total	7.156	18.124	3.828	13.583	21.928	32.702	22.844	22.896	31.550	87.300
94 Total	6.991	18.074	3.865	13.899	22.640	33.717	23.467	23.522	32.249	89.213
95 Total	7.063	18.492	3.958	14.406	22.962	34.063	23.921	23.975	33.033	90.943
96 Total	7.598	19.471	4.127	14.876	23.716	35.053	24.469	24.523	34.013	93.931
97 Total	7.136	18.899	4.150	15.375	23.890	35.241	24.770	24.823	34.393	94.340
98 Total	6.497	18.732	3.883	15.553	23.570	34.951	25.336	25.390	35.340	94.623
99 Total	6.847	19.210	3.929	15.849	24.053	35.481	26.164	26.219	35.766	96.767
	_	_			_	_				
00 January	R 1.104	R 2.282	.561	1.550	R 2.143	R 3.069	2.087	2.091	3.098	8.991
February	R .989	R 2.000	R .521	R 1.431	R 2.054	R 2.923	R 2.064	R 2.068	2.795	8.419
March	R .743	R 1.656	438	1.399	R 2.052	R 3.005	R 2.224	R 2.229	2.832	8.285
April	.567	1.386	R .330	R 1.255	R 1.916	R 2.844	R 2.178	R 2.182	2.677	7.662
May	.383	1.307	R .249	R 1.301	R 2.025	R 3.029	R 2.292	R 2.297	2.986	7.932
June	R .300	R 1.398	R .209	R 1.298	R 1.982	R 2.956	R 2.272	R 2.277	3.165	7.929
	R .273	R 1.543	R .199	R 1.343	R 1.969	R 2.924	R 2.334	R 2.339	3.374	
July	R .286	R 1.590	R .224	R 1.406	R 2.074	R 3.067	R 2.399	R 2.404	3.484	8.151
August	R 200	N 1.590	R 047	R 1.406		R 0.007	R 2.399	R 2.404		8.470
September	R .298	R 1.374	R .217	R 1.249	R 2.000	R 2.898	R 2.214	R 2.219	3.011	7.740
October	R .410	R 1.305	R .257	R 1.248	R 2.073	R 2.994	R 2.276	R 2.281	2.812	7.827
November	R .667	R 1.570	R .376	R 1.353	R 2.001	R 2.937	R 2.178	R 2.182	2.819	8.039
December	R 1.163	R 2.373	R .591	R 1.598	R 2.133	R 3.034	R 2.315	R 2.319	3.123	9.322
Total	R 7.183	R 19.791	R 4.172	R 16.432	R 24.420	R 35.673	R 26.840	R 26.896	36.176	98.77
01 January	R 1.220	R 2.485	.623	R 1.609	R 2.086	R 2.902	R 2.223	R 2.228	3.072	9.223
February	R .995	R 1.970	R .535	^R 1.407	R 1.912	R 2.703	R 2.023	R 2.027	2.641	R 8.101
March	R .897	R 1.865	R .482	1.442	R 2.030	R 2.890	R 2.315	R 2.320	2.794	8.512
April	R .584	R 1.432	R .342	R 1.259	R 1.928	R 2.770	R 2.249	R 2.253	2.612	R 7.709
May	.367	R 1.244	R .256	R 1.295	R 1.897	R 2.817	R 2.322	R 2.326	2.841	R 7.68
	R .294	R 1.332	R .222	R 1.334	R 1.827	R 2.724	R 2.255	R 2.260		R 7.65
June	R .276	R 1.532	R .206	R 1.387	R 1.947	" Z.1Z4 R 2 024	R 2.255	R 2 402	3.053 3.315	· 7.00
July	".2/0 P.000	1.531 P4.500	".20b	1.38/	1.947	R 2.821	`` Z.397	R 2.403		R 8.14
August	R .288	R 1.589	R .221	R 1.404	R 1.995	R 2.876	R 2.368	R 2.373	3.370	R 8.24
September	R .281	R 1.294	.219	R 1.254	R 1.945	R 2.740	R 2.138	R 2.144	2.847	R 7.43
October	R .412	R 1.276	.271	1.275	R 2.096	R 2.939	R 2.266	R 2.271	2.715	R 7.758
November	K 548	R 1.381	R .314	R 1.258	R 1.972	R 2.795	R 2.142	_ 2.146	2.605	R 7.579
December	R .824	R 1.859	^R .436	R 1.446	R 2.017	R 2.853	R 2.141	R 2.145	2.886	R 8.30
Total	R 6.985	R 19.272	R 4.126	R 16.363	R 23.652	R 33.822	R 26.839	R 26.896	34.750	R 96.339
				5						
02 January	R _{1.044}	R 2.248	R .532	R 1.524	R 2.073	R 2.858	R 2.149	R 2.153	_ 2.986	R 8.783
February	R .906	R 1.883	R .481	R 1.385	R 1.928	R 2.676	R 1.980	R 1.984	R 2.633	R 7.926
March	R .859	R 1.858	R .465	R 1.464	R 2.008	R 2.833	R 2.267	R 2.272	R 2.828	R 8.427
April	R .581	R 1.455	R .342	R 1.303	R 1.850	R 2.645	R 2.264	R 2.268	R 2.633	R 7.668
May	.405	1.267	.266	1.332	1.979	2.849	2.351	2.356	2.804	7.803
5-Month Total	3.794	8.711	2.087	7.009	9.838	13.861	11.011	11.034	13.884	40.607
	3.734	0.711	2.007	1.003	3.030	13.001	11.011	11.034	13.004	+0.007
1 5-Month Total	4.062	8.996	2.237	7.012	9.852	14.082	11.132	11.154	13.961	41.22

electric power, hydroelectric power, wood, waste, alcohol fuels, geothermal, solar, wind, net imports of coal coke, and net imports of electricity. Total consumption includes primary consumption; electric utility retail sales of electricity, including nonutility sales of electricity to utilities for distribution to end users; and electrical system energy losses. 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 Tables 2.2-2.6 and end of section.

^a Most nonutility use of fossil fuels to produce electricity is included in the end-use sectors. See Note 2 at end of section.

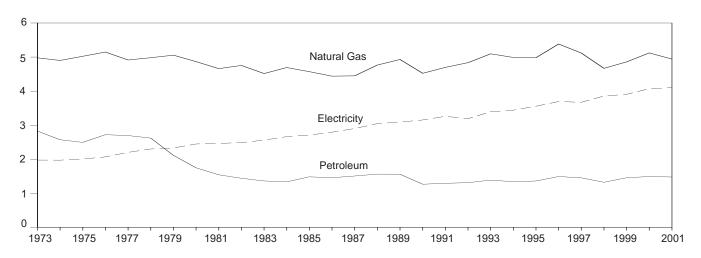
^b The sum of primary consumption in the five energy-use sectors equals the sum of total consumption in the four end-use sectors. However, total energy consumption does not exactly equal the sum of the sectoral components due to independent rounding and the use of sector-specific conversion factors for natural gas and coal.

R=Revised.

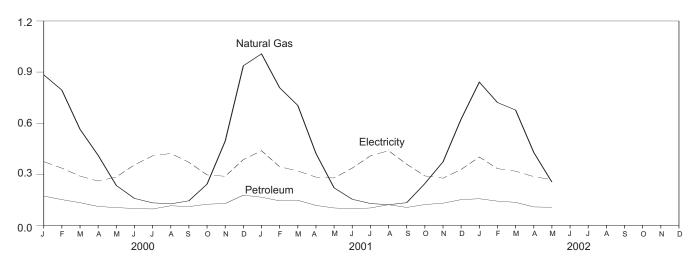
Notes: Primary consumption includes coal, natural gas, petroleum, nuclear

Figure 2.2 Residential Sector Energy Consumption

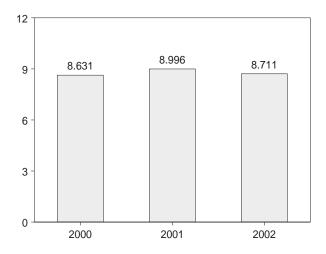
By Major Sources, 1973-2001



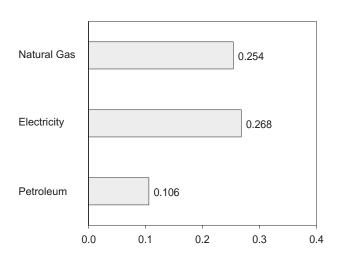
By Major Sources, Monthly



Total, January-May



By Major Sources, May 2002



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

				Prima	ry Consum	ption						
		Foss	il Fuels ^a			Renewable	Energy				Electrical	
	Coal	Natural Gas ^b	Petroleum	Total	Woodc	Geo- thermal ^d	Solare	Total	Total Primary	Electricity ^f	System Energy Losses ⁹	Total
1973 Total	0.102	4.977	2.825	7.904	0.354	NA	NA	0.354	8.258	1.976	4.749	14.983
1974 Total	.103	4.901	2.573	7.577	.371	NA	NA	.371	7.948	1.973	4.824	14.745
1975 Total	.084	5.023	2.495	7.601	.425	NA	NA	.425	8.027	2.007	4.855	14.888
1976 Total	.081	5.147	2.720	7.949	.482	NA	NA	.482	8.431	2.069	4.994	15.493
1977 Total	.082	4.913	2.695	7.690	.542	NA	NA	.542	8.232	2.202	5.331	15.765
1978 Total	.085	4.981	2.620	7.687	.622	NA	NA	.622	8.309	2.301	5.639	16.249
1979 Total	.075	5.055 4.866	2.114 1.748	7.243	.728 .859	NA NA	NA NA	.728 .859	7.971	2.330	5.636 5.958	15.937 15.938
1980 Total 1981 Total	.060 .070	4.660	1.543	6.674 6.273	.869	NA NA	NA NA	.869	7.533 7.142	2.448 2.464	5.876	15.482
1982 Total	.075	4.753	1.441	6.269	.937	NA	NA	.937	7.142	2.489	6.008	15.704
1983 Total	.075	4.516	1.362	5.954	.925	NA	NA	.925	6.879	2.562	6.162	15.603
1984 Total	.083	4.692	1.337	6.113	.923	NA	NA	.923	7.036	2.662	6.229	15.927
1985 Total	.070	4.571	1.483	6.125	.899	NA	NA	.899	7.024	2.709	6.362	16.095
1986 Total	.070	4.439	1.457	5.966	.876	NA	NA	.876	6.842	2.795	6.450	16.087
1987 Total	.065	4.449	1.508	6.022	.852	NA	NA	.852	6.874	2.902	6.662	16.437
1988 Total	.067	4.765	1.563	6.395	.885	NA	NA	.885	7.280	3.046	6.887	17.213
1989 Total	.058 .062	4.929 4.523	1.560 1.266	6.547 5.852	.918 .581	.005 .006	.053 .056	.976 .642	7.522 6.494	3.090 3.153	7.193 7.238	17.805 16.884
1990 Total	.056	4.697	1.293	6.047	.613	.006	.058	.677	6.723	3.260	7.236 7.444	17.427
1992 Total	.057	4.835	1.312	6.205	.645	.006	.060	.711	6.916	3.193	7.191	17.300
1993 Total	.057	5.095	1.387	6.540	.548	.007	.062	.616	7.156	3.394	7.574	18.124
1994 Total	.056	4.988	1.340	6.384	.537	.006	.064	.607	6.991	3.441	7.642	18.074
1995 Total	.054	4.981	1.361	6.396	.596	.007	.065	.667	7.063	3.557	7.871	18.492
1996 Total	.055	5.383	1.492	6.930	.595	.007	.066	.668	7.598	3.694	8.179	19.471
1997 Total	.058	5.118	1.454	6.630	.433	.007	.065	.506	7.136	3.671	8.092	18.899
1998 Total	.044	4.669	1.324	6.037	.387	.008	.065	.459	6.497	3.856	8.379	18.732
1999 Total	.047	4.858	1.456	6.361	.414	.008	.064	.486	6.847	3.906	8.457	19.210
2000 January	.005	.884	R .172	R 1.061	A .037	A .001	A .005	A .043	R 1.104	.374	.805	R 2.282
February	.003	.794	R.151	R .949	A .034	A .001	A .005	A .040	R .989	.336	.675	R 2.000
March	.003	.564	R .133	R .700	A .037	A .001	A .005	A .043	R .743	.289	.625	R 1.656
April	.003	.411	.111	.525	A .036	A .001	A .005	A .041	.567	.260	.559	1.386
May	.002	.234	.104	.340	A .037	A .001	A .005	A .043	.383	.284	.640	1.307
June	.002	.158	R .099	R .259	A .036	A .001	A .005	A .041	R .300	.355	.743	R 1.398
July	.003	.132	R .096	R .231	A .037	A .001	A .005	A .043	R .273	.408	.862	R 1.543
August	.003	.126	R .115	R .244	A .037	A .001	A .005	A .043	R .286	.422	.881	R 1.590
September	.002 .002	.144 .242	^R .110 ^R .124	R .257 R .368	^A .036 ^A .037	A .001 A .001	A .005 A .005	^A .041 ^A .043	^R .298 ^R .410	.370 .296	.706 .599	^R 1.374 ^R 1.305
October November	.002	.495	R .128	R .626	A .036	A .001	A .005	A .043	R .667	.288	.614	R 1.570
December	.004	.937	R .177	R 1.120	A .037	A .001	A .005	A .043	R 1.163	.386	.824	R 2.373
Total	.039	5.121	R 1.518	R 6.679	E .433	E .009	E .062	E .503	R 7.183	4.069	8.540	R 19.791
		0		0.0.0							0.0.0	
2001 January	.005	R 1.007	R .165	R 1.177	A .037	A .001	A .005	A .043	R 1.220	.438	.828	R 2.485
February	.004	R .808	R .144	R .956	A .033	A .001	A .005	A .039	R .995	.344	.631	R 1.970
March	.003	.704	R .147	R .854	A .037	A .001	A .005	A .043	R .897	.319	.650	R 1.865
April	.003	R .422 .220	.117	.542 R .324	^A .036 ^A .037	A .001 A .001	A .005 A .005	^A .041 ^A .043	R .584	.283	.566	^R 1.432 ^R 1.244
May	.002 .002	.220	.102 R .097	R .252	A .037	A .001	A .005	A .043	.367 R .294	.278 .336	.600 .702	R 1.332
June July	.002	.128	R .102	R .233	A .036	A .001	A .005	A .043	R .276	.408	.702	R 1.531
August	.003	.121	R .121	R .245	A .037	A .001	A .005	A .043	R .288	.438	.863	R 1.589
September	.002	R .133	R.105	R .240	A .036	A .001	A .005	A .041	R .281	.359	.653	R 1.294
October	.003	.245	R .122	R .370	A .037	A .001	A .005	A .043	R .412	.290	.573	R 1.276
November	.003	.373	R .130	R .506	^A .036	A .001	A .005	A .041	R .548	.277	.556	R 1.381
December	.006	.624	R .151	R .781	A .037	A .001	A .005	A .043	R .824	.328	.706	R 1.859
Total	.039	R 4.938	R 1.504	R 6.481	€ .433	€ .009	€ .062	€ .503	R 6.985	4.098	8.189	R 19.272
2002 January	R.004	R .841	R .156	R 1.001	A .037	A .001	A .005	A .043	R 1.044	.401	.803	R 2.248
2002 January	.004	.721	R .156	R .867	A .037	A .001	A .005	A .043	R .906	.401 R .333	.803 R __ .645	R 1.883
February March	R .004	.677	R .135	R .816	A .037	A .001	A .005	A .043	R .859	318	R .681	R 1.858
April	.004	R .428	.108	R .539	A .036	A .001	A .005	A .041	R .581	R .286	R .588	R 1.455
May	.002	F.254	.106	.362	A .037	A .001	A .005	A .043	.405	.268	.594	1.267
5-Month Total	.017	€ 2.922	.647	3.586	A .179	A .004	A .025	A .208	3.794	1.606	3.311	8.711
0004 5 Manually Tax 1	04-	0.404	075	0.050	A 470	A 004	A 005	A 000	4.000	4.004	0.070	0.000
2001 5-Month Total	.017	3.161 2.888	.675 .670	3.853	^A .179 ^A .180	A .004 A .004	A .025 A .026	A .208 A .209	4.062	1.661	3.273	8.996
2000 5-Month Total	.017	∠.ŏŏŏ	.670	3.575	.180	.004	.020	··.209	3.784	1.543	3.304	8.631

Most nonutility use of fossil fuels to produce electricity is included in the end-use sectors. See Note 2 at end of section.
 Includes supplemental gaseous fuels.

b Includes supplemental gaseous roots.
c Wood only.
d Geothermal heat pump and direct use energy.
Solar thermal direct use and photovoltaic energy. Includes small amounts of commercial sector use.
f Electric utility retail sales of electricity, including nonutility sales of electricity to utilities for distribution to end users; does not include nonutility facility use of onsite electricity generation or electricity sold by nonutilities directly to end users.

⁹ See Note 12 at end of section.
R=Revised. NA=Not available. E=Estimate. F=Forecast. A=Apportioned data: monthly estimates for 1999 and 2000 are created by dividing the annual value by the number of days in the year and then multiplying by the number of days in the month; temporary 2001 monthly estimates are created by dividing the 2000 annual value by 365 and multiplying by the number of days in the month.

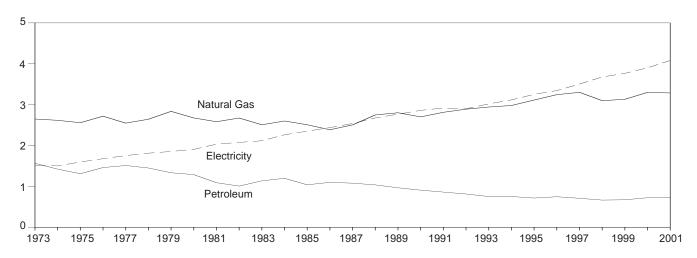
Notes: Totals may not equal sum of components due to independent rounding. Geographic coverage is the 50 States and the District of Columbia.

Web Page: http://www.eia.doe.gov/emeu/mer/consump.html.

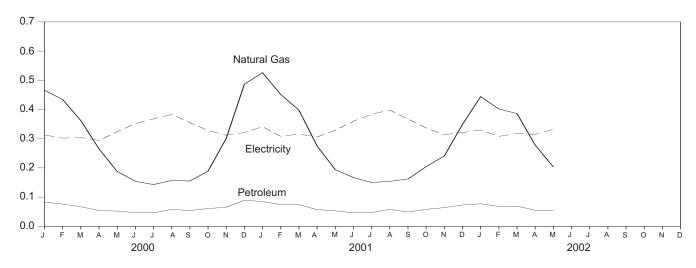
rounding. Geographic coverage is the 50 States and the Distr Web Page: http://www.eia.doe.gov/emeu/mer/consump.html. Additional Notes and Sources: See end of section.

Figure 2.3 Commercial Sector Energy Consumption

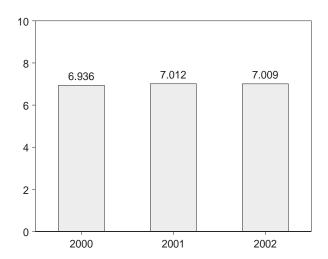
By Major Sources, 1973-2001



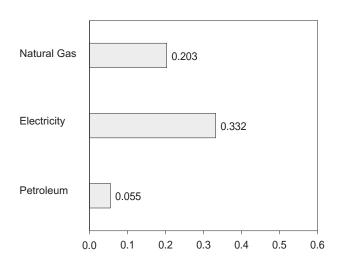
By Major Sources, Monthly



Total, January-May



By Major Sources, May 2002



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

				Primary Co	nsumption						
		Fossi	il Fuels ^a		Re	newable Ene	rgy			Electrical	
	Coal	Natural Gas ^b	Petroleum	Total	Woodc	Geo- thermal ^d	Total	Total Primary	Electricitye	System Energy Losses ^f	Total
1973 Total	0.152 .154	2.649 2.617	1.565 1.423	4.367 4.194	0.007 .007	NA NA	0.007 .007	4.373 4.201	1.517 1.501	3.644 3.672	9.534 9.374
1975 Total	.126	2.558	1.310	3.994	.008	NA	.008	4.002	1.598	3.865	9.465
1976 Total	.122 .123	2.718 2.548	1.461 1.511	4.301 4.182	.009 .010	NA NA	.009 .010	4.310 4.193	1.678 1.754	4.049 4.247	10.038 10.194
1977 Total	.123	2.643	1.450	4.102	.012	NA NA	.010	4.193	1.813	4.443	10.194
1979 Total	.112	2.836	1.334	4.282	.014	NA	.014	4.296	1.854	4.485	10.635
1980 Total	.086 .097	2.674 2.583	1.288 1.090	4.047 3.770	.021 .021	NA NA	.021 .021	4.068 3.791	1.906 2.033	4.639 4.848	10.613 10.672
1982 Total	.112	2.673	1.008	3.794	.022	NA	.022	3.816	2.077	5.014	10.906
1983 Total	.117	2.508	1.136	3.761	.022	NA	.022	3.783	2.116	5.090	10.989
1984 Total 1985 Total	.125 .106	2.600 2.508	1.198 1.039	3.923 3.652	.022 .024	NA NA	.022 .024	3.945 3.676	2.264 2.351	5.300 5.522	11.510 11.550
1986 Total	.106	2.386	1.099	3.590	.027	NA	.027	3.617	2.439	5.628	11.684
1987 Total 1988 Total	.097 .101	2.505 2.748	1.079 1.037	3.681 3.886	.029 .032	NA NA	.029 .032	3.710 3.918	2.539 2.675	5.829 6.047	12.078 12.640
1989 Total	.088	2.802	.966	3.855	.034	.003	.037	3.892	2.767	6.441	13.099
1990 Total 1991 Total	.093 .085	2.701 2.813	.908 .861	3.702 3.758	.037 .039	.003 .003	.040 .042	3.742 3.800	2.860 2.918	6.566 6.663	13.168 13.382
1992 Total	.085	2.890	.814	3.788	.042	.003	.045	3.834	2.900	6.531	13.264
1993 Total	.086	2.942	.753	3.780	.044	.003	.047	3.828	3.019	6.736	13.583
1994 Total 1995 Total	.083 .081	2.979 3.113	.753 .715	3.816 3.908	.045 .045	.004 .005	.049 .050	3.865 3.958	3.116 3.252	6.919 7.196	13.899 14.406
1996 Total	.083	3.244	.747	4.073	.049	.005	.054	4.127	3.344	7.405	14.876
1997 Total 1998 Total	.087 .066	3.302 3.098	.709 .665	4.098 3.829	.047 .047	.006 .007	.053 .054	4.150 3.883	3.503 3.678	7.722 7.993	15.375 15.553
1999 Total	.070	3.130	.672	3.871	.051	.007	.058	3.929	3.766	8.154	15.849
2000 January	.008	.466	R .083	.556	A .004	A .001	A .005	.561	.313	.676	1.550
February	.006	.434	R.076	R .516	A .004	A .001	A .005	R .521	.302	.608	R 1.431
March	.004	.362	R .067 R .054	R .433 R .325	A .004 A .004	A .001 A .001	A .005	.438 R .330	.304	.657	1.399
April May	.005 .003	.265 .188	R .052	R .244	A .004	A .001 A .001	^A .005 ^A .005	R .249	.294 .324	.631 .729	^R 1.255 ^R 1.301
June	.003	.154	R 047	R .204	A .004	A .001	A .005	R .209	.352	.737	R 1.298
July August	.004 .004	.143 .157	R .046 R .058	R .194 R .219	A .004 A .004	A .001 A .001	A .005 A .005	R .199 R .224	.368 .383	.777 .799	R 1.343 R 1.406
September	.003	.155	R 054	R 213	A .004	A .001	A .005	R .217	.355	.677	R 1.249
October	.003	.189	R .061 R .065	R .252 R .371	A .004 A .004	A .001 A .001	A .005 A .005	R .257	.328	.663	R 1.248 R 1.353
November December	.006 .009	.301 .487	R .089	R .586	A .004 A .004	A .001	A.005	R .376 R .591	.312 .321	.664 .686	R 1.598
Total	.059	3.301	R .752	R 4.113	€ .052	€ .008	€.060	R 4.172	3.956	8.303	R 16.432
2001 January	.007	.526	.085	.618	A .004	A .001	A .005	.623	.341	.645	R 1.609
February	.006	R .451	R .074	R .531	A .004	A .001	A .005	R .535	.308	.564	R 1.407
March April	.005 .005	.398 R .275	R .074 R .057	R .477 R .337	^A .004 ^A .004	A .001 A .001	^A .005 ^A .005	R .482 R .342	.316 .306	.644 .612	1.442 R 1.259
May	.003	R.194	R .053	R .251	A .004	A .001	A .005	R .256	.329	.710	R 1.295
June	.004 .004	R .167 R .150	R .046 R .047	R .217 R .201	^A .004 ^A .004	A .001 A .001	^A .005 ^A .005	R .222 R .206	.360 .384	.752 .797	R 1.334 R 1.387
July August	.004	R.154	R .058	R .216	A .004	A .001	A .005	R .221	.398	.784	R 1.404
September	.003	R 162	R .049	.214	A .004	A .001	A .005	.219	.367	.668	R 1.254
October November	.004 .005	R .204 .241	R .058 R .064	.266 R .309	^A .004 ^A .004	A .001 A .001	A .005 A .005	.271 R .314	.337 .314	.666 .631	1.275 R 1.258
December	.009	R .349	R .073	R .431	A .004	A .001	A .005	R .436	.321	.690	R 1.446
Total	.059	R 3.268	R .739	R 4.067	□.052	€ .008	€.060	R 4.126	4.081	8.156	R 16.363
2002 January	.007	R .444	R .077	R .527	A .004	A .001	A .005	R .532	.330	.662	R 1.524
February March	.006 R .005	.402 .386	R .068 R .069	R .476 R .460	^A .004 ^A .004	A .001 A .001	^A .005 ^A .005	R .481 R .465	^R .308 ^R .318	R .597 R .681	R 1.385 R 1.464
April	.005	R .278	R .055	R .338	A .004	A .001	A .005	R .342	.315	R .646	^R 1.303
May 5-Month Total	.003 .025	F.203 E 1.713	.055 .324	E.261 E 2.062	^A .004 ^A .021	A .001 A .003	A .005 A . 025	.266 2.087	.332 1.602	.735 3.319	1.332 7.009
2001 5-Month Total	.026	1.843	.343	2.212	A .021	A .003	A .025	2.237	1.600	3.175	7.012
2000 5-Month Total	.026	1.716	.332	2.073	A .022	A .003	^A .025	2.098	1.537	3.301	6.936

R=Revised. NA=Not available. E=Estimate. F=Forecast. A=Apportioned data: monthly estimates for 2000 and 2001 are created by dividing the annual value by the number of days in the year and then multiplying by the number of days in the month; temporary 2002 monthly estimates are created by dividing the 2001 annual value by 365 and multiplying by the number of days in the month.

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

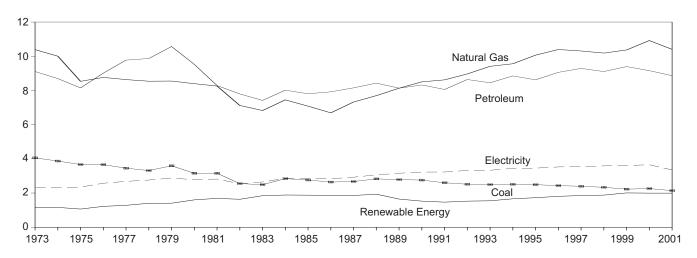
Web Page: http://www.eia.doe.gov/emeu/mer/consump.html.

Additional Notes and Sources: See end of section.

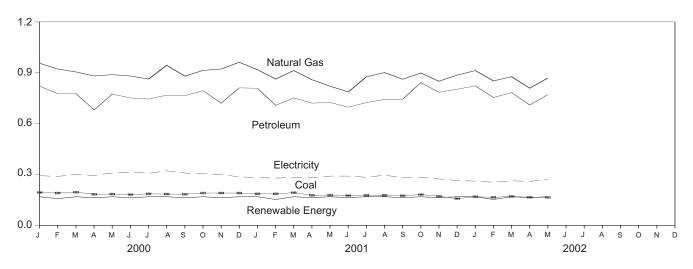
a Most nonutility use of fossil fuels to produce electricity is included in the end-use sectors. See Note 2 at end of section.
 b Includes supplemental gaseous fuels.
 c Wood only.
 d Geothermal heat pump and direct use energy.
 e Electric utility retail sales of electricity, including nonutility sales of electricity to utilities for distribution to end users; does not include nonutility facility use of onsite electricity generation or electricity sold by nonutilities directly to end users.
 f See Note 12 at end of section.

Figure 2.4 Industrial Sector Energy Consumption

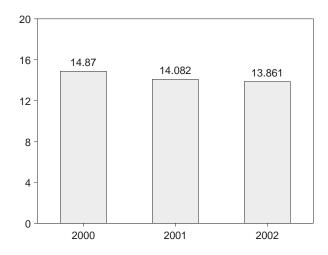
By Major Sources, 1973-2001



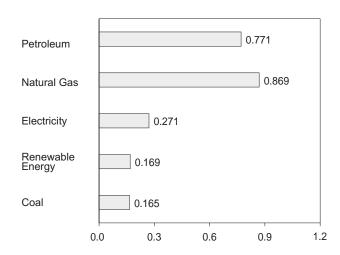
By Major Sources, Monthly



Total, January-May



By Major Sources, May 2002



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

				Primar	y Consum	ption						
			Fossil Fuel	s a		Rer	newable Ene	rgy			Flactrical	
	Coal	Coal Coke Net Imports	Natural Gas ^b	Petroleum	Total	Wood ^c and Waste ^d	Geo- thermal ^e	Total	Total Primary	Electricityf	System Energy Losses	Total
1973 Total	4.057	-0.007	10.388	9.104	23.541	1.165	NA	1.165	24.706	2.341	5.625	32.672
1974 Total	3.870	.056	10.004	8.694	22.624	1.159	NA	1.159	23.783	2.337	5.715	31.835
1975 Total 1976 Total	3.667 3.661	.014	8.532 8.762	8.146 9.010	20.359 21.432	1.063 1.220	NA NA	1.063 1.220	21.422 22.652	2.346 2.573	5.676 6.209	29.445 31.434
1977 Total	3.454	(s) .015	8.635	9.774	21.432	1.220	NA NA	1.220	23.160	2.682	6.494	32.336
1978 Total	3.314	.125	8.539	9.867	21.845	1.400	NA	1.400	23.245	2.761	6.764	32.770
1979 Total	3.593	.063	8.549	10.568	22.773	1.405	NA	1.405	24.177	2.873	6.949	33.999
1980 Total	3.155	035	8.395	9.525	21.040	1.600	NA	1.600	22.640	2.781	6.768	32.189
1981 Total 1982 Total	3.157 2.552	016 022	8.257 7.121	8.285 7.794	19.682 17.446	1.689 1.634	NA NA	1.689 1.634	21.371 19.079	2.817 2.542	6.717 6.135	30.906 27.756
1983 Total	2.490	016	6.826	7.420	16.720	1.845	NA	1.845	18.565	2.648	6.368	27.580
1984 Total	2.842	011	7.448	8.014	18.292	1.883	NA	1.883	20.175	2.859	6.691	29.724
1985 Total	2.760	013	7.080	7.805	17.632	1.875	NA	1.875	19.507	2.855	6.705	29.067
1986 Total	2.641 2.673	017 .009	6.690 7.323	7.920 8.151	17.234 18.155	1.866 1.858	NA NA	1.866 1.858	19.100 20.013	2.834 2.928	6.540 6.723	28.474 29.664
1987 Total 1988 Total	2.828	.040	7.696	8.430	18.993	1.933	NA NA	1.933	20.013	3.059	6.915	30.899
1989 Total	2.787	.030	8.131	8.133	19.081	1.644	.002	1.646	20.727	3.158	7.353	31.238
1990 Total	2.756	.005	8.502	8.320	19.583	1.525	.002	1.527	21.111	3.226	7.406	31.743
1991 Total	2.601	.010	8.619	8.057	19.287	1.465	.002	1.467	20.754	3.230	7.375	31.359
1992 Total 1993 Total	2.515 2.496	.035 .027	8.967 9.410	8.638 8.449	20.154 20.382	1.523 1.543	.002 .002	1.525 1.546	21.679 21.928	3.319 3.334	7.473 7.440	32.472 32.702
1994 Total	2.510	.058	9.560	8.849	20.977	1.661	.002	1.663	22.640	3.439	7.638	33.717
1995 Total	2.488	.061	10.064	8.621	21.234	1.725	.003	1.727	22.962	3.455	7.646	34.063
1996 Total	2.434	.023	10.393	9.058	21.909	1.804	.003	1.807	23.716	3.527	7.810	35.053
1997 Total 1998 Total	2.395 2.335	.046 .067	10.307 10.184	9.288 9.104	22.036 21.691	1.851 1.876	.003 .003	1.854 1.879	23.890 23.570	3.542 3.587	7.809 7.794	35.241 34.951
1999 Total	2.227	.058	10.367	9.395	22.046	2.003	.004	2.007	24.053	3.611	7.817	35.481
2000 January	.194	.004	.956	R .821	R 1.974	A .168	A (s)	A .169	R 2.143	.293	.632	R 3.069
February	.191	.007	.922	R .776	R 1.896	A .158	A (s)	A .158	R 2.054	.289	.580	R 2.923
March April	.196 .184	.006 .006	.905 .881	^R .777 ^R .681	R 1.883 R 1.752	^A .168 ^A .163	A (s) A (s)	^A .169 ^A .163	^R 2.052 ^R 1.916	.301 .295	.652 .634	^R 3.005 ^R 2.844
May	.185	.008	.889	R .774	R 1.856	A .168	A (S)	A .169	R 2.025	.309	.695	R 3.029
June	.182	.004	.881	R .752	R 1.819	A .163	A (s)	A .163	R 1.982	.315	.659	R 2.956
July	.186	.006	.863	R .745	R 1.800	A .168	^A (s)	A .169	R 1.969	.307	.648	R 2.924
August	.185	.008	.944	^R .768 ^R .765	R 1.905 R 1.836	^A .168 ^A .163	A (s)	^A .169 ^A .163	R 2.074	.322	.672	^R 3.067 ^R 2.898
September October	.184 .191	.007 .006	.880 .914	R.794	R 1.904	A.168	A (s) A (s)	A.163	^R 2.000 ^R 2.073	.309 .305	.589 .616	R 2.898
November	.191	.004	.922	R .721	R 1.838	A .163	A (s)	A .163	R 2.001	.299	.637	R 2.937
December	.191	(s)	.962	_R .811	R 1.964	^A .168	A (s)	_ ^A .169	R 2.133	.287	.614	R 3.034
Total	2.260	.065	10.918	R 9.184	R 22.428	^E 1.988	E.004	^E 1.993	R 24.420	3.631	7.621	R 35.673
2001 January	.186	.003	R .918	.809	R 1.916	A .169	A (s)	A .169	R 2.086	.282	.534	R 2.902
February	.186	.002	.863 R .913	R .708 R .752	^R 1.759 ^R 1.860	A .153	A (s)	A .153	^R 1.912 ^R 2.030	.279	.511	R 2.703
March April	.193 .178	.003 .005	R .859	R .721	R 1.764	^A .169 ^A .163	A (s) A (s)	^A .169 ^A .164	R 1.928	.283 .281	.577 .562	^R 2.890 ^R 2.770
May	.179	.004	R .821	R .725	R 1.728	A .169	A (s)	A.169	^R 1.897	.291	.628	R 2.817
June	.176	.003	.787	R .697	R 1.663	^A .163	A (s)	A .164	R 1.827	.291	.607	R 2.724
July	.178	(s)	R .876 R .901	R .724 R .743	R 1.778	A.169	A (s)	A .169	R 1.947	.284	.589	R 2.821
August September	.178 .175	.004 .001	R .862	R .743	^R 1.826 ^R 1.781	^A .169 ^A .163	A (s) A (s)	^A .169 ^A .164	^R 1.995 ^R 1.945	.296 .282	.584 .513	^R 2.876 ^R 2.740
October	.182	.004	R .899	R .842	R 1.927	A .169	A (s)	A .169	R 2.096	.283	.560	R 2.939
November	.172	.002	R .850	R .785	R 1.808	^A .163	A (s)	A .164	R 1.972	.274	.550	R 2.795
December Total	.158 2.140	.001 .032	R .886	R .803 R 9.053	R 1.848 R 21.659	^A .169 E 1.988	A (s) E .004	^A .169 E 1.993	R 2.017 R 23.652	.265 3.392	.571 6.778	R 2.853 R 33.822
2002 January	R .169	001	R .913	R .823	R 1.904	A .169	^A (s)	A .169	R 2.073	261	.524	R 2.858
February	R .166	.003	R .852	R .754	^R 1.775	A .153	A (s)	A .153	R 1.928	R .255	R .493	R 2.676
March	R .171	.008	R .877	R .783	R 1.839	^A .169	^A (s)	A .169	R 2.008	R .263	R .562	R 2.833
April	R .166	.001	R .809	R .710	R 1.686	A .163	A (s)	A 164	R 1.850	R .260	R .534	R 2.645
May 5-Month Total	.165 .837	.005 .015	F .869 E 4.320	.771 3.841	E 1.809 E 9.014	^A .169 ^A .822	^A (s) ^A (s)	^A .169 ^A .824	1.979 9.838	.271 1.310	.600 2.713	2.849 13.861
2001 5-Month Total 2000 5-Month Total	.922 .950	.017 .031	4.374 4.552	3.715 3.829	9.028 9.361	^A .822 ^A .826	^A (s) ^A (s)	A .824 A .828	9.852 10.189	1.417 1.487	2.813 3.193	14.082 14.870

⁹ See Note 12 at end of section. R=Revised. NA=Not available. E=Estimate. F=Forecast. (s)=Less than 0.5 trillion Btu. A=Apportioned data: monthly estimates for 2000 and 2001 are created by dividing the annual value by the number of days in the year and then multiplying by the number of days in the month; temporary 2002 monthly estimates are created by dividing the 2001 annual value by 365 and multiplying by the number of days in the month. month.

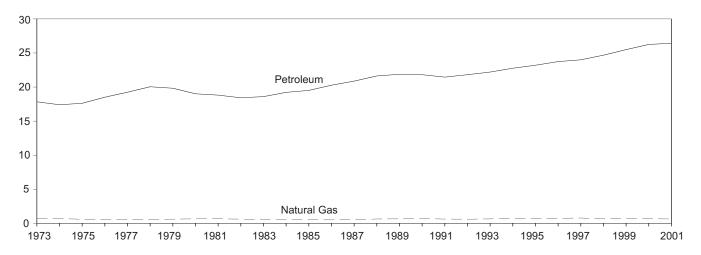
Notes: Totals may not equal sum of components due to independent rounding. Geographic coverage is the 50 States and the District of Columbia. Web Page: http://www.eia.doe.gov/emeu/mer/consump.html. Additional Notes and Sources: See end of section.

 ^a Most nonutility use of fossil fuels to produce electricity is included in the end-use sectors. See Note 2 at end of section.
 ^b Includes supplemental gaseous fuels.
 ^c Wood, wood waste, black liquor, red liquor, spent sulfite liquor, wood sludge, peat, railroad ties, and utility poles.
 ^d 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.
 ^e Geothermal heat pump and direct use energy.
 ^f Electric utility retail sales of electricity, including nonutility sales of electricity to utilities for distribution to end users; does not include nonutility facility use of onsite electricity generation or electricity sold by nonutilities directly to end users.

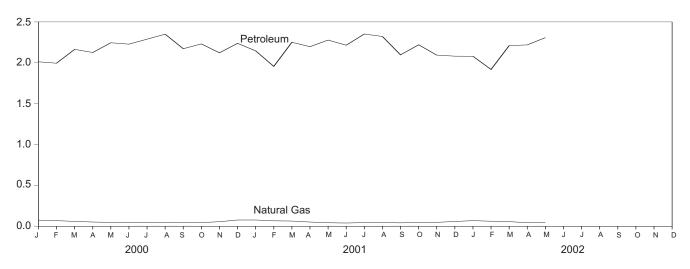
electricity generation or electricity sold by nonutilities directly to end users.

Figure 2.5 Transportation Sector Energy Consumption

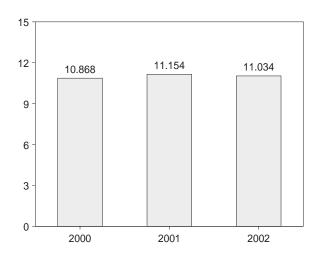
By Major Sources, 1973-2001



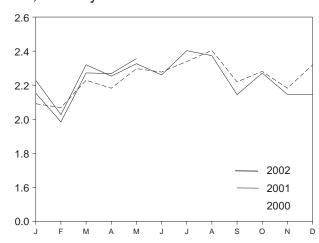
By Major Sources, Monthly



Total, January-May



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

Fossil Fuels Petroleum				Primary Co	onsumption					
Total Gas ¹ Petroleum Total Fuels Primary Electricityd Cosses			Fossil	Fuels ^a						
1974 Total		Coal		Petroleum	Total			Electricityd	Energy	Total ^c
1974 Total	3 Total	0.003	0.743	17.831	18.576	NA	18.576	0.011	0.025	18.612
1976 Total	l Total				18.086					18.119
1977 Total (5) 543 19.241 19.784 NA 19.784 O10 0.25 1973 Total (1) 539 20.41 20.580 NA 20.580 .010 .025 1973 Total (1) 539 20.41 20.580 NA 20.580 .010 .025 1973 Total (1) 539 20.41 20.580 NA 20.458	Total									18.244
1978 Total (†) 539 20.041 20.580 NA 20.580 .010 .025 1980 Total (†) 6.12 19.825 20.436 NA 20.436 .010 .024 1980 Total (†) 6.50 19.008 19.658 NA 19.658 .011 .027 1981 Total (†) 6.50 19.008 19.658 NA 19.658 .011 .027 1981 Total (†) 6.50 19.008 19.658 NA 19.658 .011 .027 1981 Total (†) 6.50 19.008 19.658 NA 19.658 .011 .027 1981 Total (†) 6.50 18.513 19.008 .013 .009 19.608 .011 .026 1983 Total (†) 6.545 19.216 19.761 .043 19.761 .043 .011 .026 1984 Total (†) 5.545 19.216 19.761 .043 19.761 .043 .031 1985 Total (†) 5.549 19.504 20.023 .052 20.023 .014 .033 1985 Total (†) 5.55 20.870 21.405 .069 21.405 .016 .036 1987 Total (†) 6.50 21.628 22.617 .073 22.619 .046 .036 1990 Total (†) 6.60 21.812 22.619 .083 22.488 .063 .0276 .006 .007	Total									19.099
1979 Total ((ş)								19.820
1980 Total	3 Iotal	(;)								20.615
1981 Total (7 Total	(;)								20.471 19.696
1982 Total (\ _f \								19.506
1983 Total (Total	\f\								19.070
1984 Total (R Total	}f{								19.141
1985 Total (5.19 19.504 20.023 0.52 20.023 0.14 0.03 1986 Total (A.99 20.269 20.768 0.660 20.768 0.15 0.016 0.036 1987 Total (5.35 20.870 21.405 0.69 21.405 0.16 0.036 1987 Total (Total	λf;								19.809
1986 Total	Total	}f{								20.071
1987 Total (Total	(†)	.499	20.269	20.768	.060	20.768	.015	.035	20.818
1988 Total	7 Total	(†)								21.456
1990 Total	3 Total	(†)								22.313
1991 Total		(;)								22.571
1992 Total		(¦)								22.541
1993 Total		(;)								22.130
1994 Total	2 Total	\ \ \ \								22.471 22.896
1995 Total ((·)								23.522
1996 Total (f) _f (23.975
1997 Total (f) .662 .24.675 .25.336 .117 .25.336 .017 .037 .037 .039 .038		}f{								24.523
1998 Total 1		}f{								24.823
1999 Total		(f)								25.390
February	Total	(^f)	.669	25.494	26.164	.122	26.164	.017	.038	26.219
March		(f)					2.087			2.091
April (f) 0.52 R2.126 R2.178 0.10 R2.178 0.01 0.03 May (f) 0.48 R2.245 R2.292 0.12 R2.292 0.01 0.03 June (f) 0.44 R2.228 R2.272 0.09 R2.272 0.002 0.03 July (f) 0.44 R2.289 R2.334 0.01 R2.334 0.002 0.03 August (f) 0.48 R2.350 R2.399 0.12 R2.394 0.002 0.03 September (f) 0.43 R2.172 R2.214 0.01 R2.399 0.02 0.03 September (f) 0.43 R2.172 R2.214 0.01 R2.214 0.02 0.03 November (f) 0.45 R2.231 R2.276 0.13 R2.276 0.02 0.03 November (f) 0.56 R2.122 R2.178 0.13 R2.178 0.01 0.03 December (f) 0.77 R2.238 R2.315 0.14 R2.315 0.01 0.03 December (f) 0.77 R2.238 R2.315 0.14 R2.315 0.01 0.03 December (f) 0.77 R2.146 R2.223 0.15 R2.223 0.02 0.03 September (f) 0.64 R2.251 R2.315 0.12 R2.023 0.01 0.03 March (f) 0.64 R2.251 R2.315 0.12 R2.023 0.01 0.03 March (f) 0.64 R2.251 R2.315 0.12 R2.023 0.01 0.03 May (f) 0.64 R2.251 R2.315 0.12 R2.023 0.01 0.03 May (f) 0.65 R2.197 R2.249 0.11 R2.249 0.01 0.03 May (f) 0.43 R2.278 R2.322 0.11 R2.249 0.01 0.03 May (f) 0.45 R2.352 R2.397 0.11 R2.249 0.01 0.03 June (f) 0.45 R2.352 R2.397 0.11 R2.397 0.02 0.03 June (f) 0.45 R2.352 R2.397 0.11 R2.397 0.02 0.04 August (f) 0.45 R2.352 R2.397 0.11 R2.397 0.02 0.04 August (f) 0.45 R2.352 R2.397 0.11 R2.397 0.02 0.04 August (f) 0.46 R2.200 R2.689 0.10 R2.368 0.00 0.04 August (f) 0.46 R2.200 R2.66 0.16 R2.266 0.00 0.03 December (f) 0.46 R2.200 R2.66 0.16 R2.266 0.00 0.00 November (f) 0.46 R2.200 R2.66 0.16 R2.266 0.00 0.00 November (f) 0.46 R2.200 R2.66 0.16 R2.266 0.00 0.00 November (f) 0.46 R2.200 R2.66 0.16 R2.266 0.00 0.00 November (f) 0.48 R2.094 R2.141 0.13 R2.141 0.01 0.03 March (f) R.650 R2.219 R2.267 0.12 R2.267 R.001 R.003 March (f) R.664 R2.219 R2.267 0.12 R2.267 R.001 R.003 March (f) R.664 R2.219 R2.266 0.10 R2.267 R.001 R.003 March (f) R.664 R2.219 R2.266 0.10 R2.267 R.001 R.003 March (f) R.644 R2.219 R2.266 0.10 R2.267 R.001 R.003 March (f) R.664 R2.219 R2.266 0.10 R2.267 R.001 R.003 March (f) R.664 R2.219 R2.266 0.10 R2.267 R.001 R.003 March (f) R.664 R2.219 R2.266 0.10 R2.267 R.001 R.003		(¦)					^K 2.064			R 2.068
May (f) 0.48 R 2.245 R 2.292 0.12 R 2.292 0.01 0.03 June (f) 0.044 R 2.228 R 2.272 0.09 R 2.272 0.002 0.03 July (f) 0.44 R 2.289 R 2.334 0.01 R 2.334 0.02 0.03 August (f) 0.48 R 2.350 R 2.399 0.02 0.03 September (f) 0.45 R 2.231 R 2.214 0.01 R 2.214 0.02 0.03 November (f) 0.056 R 2.231 R 2.276 0.13 R 2.178 0.01 0.03 November (f) 0.056 R 2.122 R 2.178 0.01 0.03 November (f) 0.07 R 2.6840 .139 R 26.840 .001 0.03 Total (f) 0.67 R 2.146 R 2.223 .015 R 2.223 .002 .003 Total (f) 0.67 R 1.956 R		(')		N 2.164	R 2.224					^R 2.229 ^R 2.182
June (†) 0.44		(·)		" Z. 120 R 2 245	" 2.178 R 2.202		" Z.178 R 2.202			R 2.182
July (f) 0.44 R2.289 R2.334 0.11 R2.334 0.002 0.03 August (f) 0.48 R2.350 R2.399 0.12 R2.399 0.002 0.03 September (f) 0.43 R2.172 R2.214 0.11 R2.214 0.002 0.03 October (f) 0.45 R2.231 R2.76 0.13 R2.276 0.002 0.03 November (f) 0.56 R2.122 R2.178 0.13 R2.276 0.002 0.03 December (f) 0.56 R2.122 R2.178 0.13 R2.178 0.01 0.03 December (f) 0.77 R2.238 R2.315 0.14 R2.315 0.01 0.03 Total (f) 0.670 R26.171 R26.840 1.39 R26.840 0.18 0.38 C201 January (f) 0.670 R26.171 R26.840 1.39 R26.840 0.18 0.38 C201 January (f) 0.67 R2.146 R2.223 0.15 R2.233 0.002 0.03 February (f) 0.67 R1.956 R2.023 0.12 R2.023 0.01 0.03 April (f) 0.64 R2.251 R2.315 0.12 R2.315 0.01 0.03 April (f) 0.52 R2.197 R2.249 0.11 R2.249 0.01 0.03 May (f) 0.43 R2.278 R2.322 0.11 R2.249 0.01 0.03 May (f) 0.43 R2.278 R2.322 0.11 R2.249 0.01 0.03 May (f) 0.43 R2.278 R2.322 0.11 R2.322 0.002 0.04 July (f) 0.45 R2.352 R2.397 0.11 R2.397 0.002 0.04 July (f) 0.45 R2.352 R2.397 0.11 R2.397 0.002 0.04 August (f) 0.45 R2.352 R2.397 0.11 R2.397 0.002 0.04 September (f) 0.46 R2.207 R2.138 0.12 R2.318 0.002 0.03 October (f) 0.46 R2.2097 R2.138 0.12 R2.138 0.002 0.03 October (f) 0.46 R2.2097 R2.138 0.12 R2.138 0.002 0.03 October (f) 0.46 R2.2097 R2.138 0.12 R2.138 0.002 0.03 December (f) 0.48 R2.094 R2.142 0.13 R2.141 0.01 0.03 December (f) 0.48 R2.094 R2.142 0.13 R2.141 0.01 0.03 P2.683 0.002 0.03 October (f) 0.46 R2.2097 R2.138 0.12 R2.138 0.002 0.03 October (f) 0.46 R2.2097 R2.138 0.12 R2.138 0.002 0.03 October (f) 0.46 R2.2097 R2.138 0.12 R2.138 0.002 0.03 October (f) 0.46 R2.2097 R2.138 0.12 R2.141 0.01 0.03 R2.141 0.01 0.03 December (f) 0.49 R2.097 R2.138 0.12 R2.149 0.01 0.03 R2.141 0.01 0.03 December (f) 0.46 R2.2097 R2.138 0.12 R2.149 0.01 0.03 R2.142 0.01 0.03 December (f) 0.46 R2.2097 R2.138 0.12 R2.149 0.01 0.03 R2.141 0.01 0.03		\ f \		R 2.243	R 2.292					R 2.277
August (f) 0.48 R 2.350 R 2.399 .012 R 2.399 .002 .003 September (f) .043 R 2.172 R 2.214 .011 R 2.214 .002 .003 November (f) .056 R 2.221 R 2.178 .013 R 2.178 .001 .003 December (f) .077 R 2.238 R 2.315 .014 R 2.315 .001 .003 Total (f) .670 R 2.6171 R 26.840 .139 R 26.840 .018 .038 2001 January (f) .077 R 2.146 R 2.223 .015 R 2.223 .002 .003 February (f) .067 R 1.956 R 2.023 .012 R 2.023 .001 .003 March (f) .064 R 2.251 R 2.315 .012 R 2.2315 .001 .003 May (f) .052 R 2.197 R 2.249 .011 R 2.322 .001 .003 <td></td> <td>) f (</td> <td></td> <td></td> <td>R 2 334</td> <td></td> <td></td> <td></td> <td></td> <td>R 2.339</td>) f (R 2 334					R 2.339
September (†) .043 R 2.172 R 2.214 .011 R 2.214 .002 .003 October (†) .045 R 2.231 R 2.276 .013 R 2.276 .002 .003 November (†) .056 R 2.122 R 2.178 .013 R 2.178 .001 .003 December (†) .077 R 2.238 R 2.315 .014 R 2.315 .001 .003 Total (†) .670 R 26.171 R 26.840 .139 R 26.840 .018 .038 2001 January (†) .067 R 1.956 R 2.023 .015 R 2.223 .001 .003 Hebruary (†) .067 R 1.956 R 2.023 .012 R 2.233 .001 .003 March (†) .064 R 2.251 R 2.315 .012 R 2.315 .001 .003 April (†) .064 R 2.251 R 2.315 .012 R 2.315 .001 .003<		(f (R 2.350			R 2.399			R 2.404
October (†) .045 R 2.231 R 2.276 .013 R 2.178 .002 .003 November (†) .056 R 2.122 R 2.178 .013 R 2.178 .001 .003 December (†) .077 R 2.238 R 2.315 .014 R 2.315 .001 .003 Total (†) .670 R 26.840 .139 R 26.840 .018 .038 2001 January (†) .067 R 1.956 R 2.023 .015 R 2.223 .002 .003 February (†) .067 R 1.956 R 2.023 .012 R 2.315 .001 .003 March (†) .064 R 2.251 R 2.315 .012 R 2.315 .001 .003 May (†) .052 R 2.197 R 2.249 .011 R 2.249 .001 .003 May (†) .043 R 2.275 R 2.322 .011 R 2.322 .002 .003 <t< td=""><td></td><td>(f)</td><td></td><td>R 2.172</td><td>R 2.214</td><td></td><td>R 2.214</td><td></td><td></td><td>R 2.219</td></t<>		(f)		R 2.172	R 2.214		R 2.214			R 2.219
December Color C	October	(f)	.045	R 2.231		.013		.002	.003	R 2.281
Total (†) .670 R 26.171 R 26.840 .139 R 26.840 .018 .038 2001 January (†) .077 R 2.146 R 2.223 .015 R 2.223 .002 .003 February (†) .067 R 1.956 R 2.023 .012 R 2.023 .001 .003 March (†) .064 R 2.251 R 2.315 .012 R 2.315 .001 .003 April (†) .052 R 2.197 R 2.249 .011 R 2.249 .001 .003 May (†) .043 R 2.278 R 2.322 .011 R 2.322 .002 .003 June (†) .043 R 2.278 R 2.322 .011 R 2.322 .002 .003 June (†) .045 R 2.352 R 2.397 .011 R 2.322 .002 .004 July (†) .045 R 2.322 R 2.368 .010 R 2.368 .002 .004	November	(^f)		R 2.122						R 2.182
2001 January (f) 077		(†)								R 2.319
February (f) 0.67 R1.956 R2.023 0.12 R2.023 0.01 0.03 March (f) 0.64 R2.251 R2.315 0.12 R2.315 0.01 0.03 April (f) 0.52 R2.197 R2.249 0.11 R2.249 0.01 0.03 May (f) 0.43 R2.278 R2.322 0.11 R2.322 0.02 0.03 June (f) 0.40 R2.215 R2.255 0.12 R2.397 0.02 0.04 July (f) 0.45 R2.352 R2.397 0.11 R2.397 0.02 0.04 August (f) 0.45 R2.352 R2.397 0.11 R2.397 0.02 0.04 August (f) 0.45 R2.352 R2.397 0.11 R2.397 0.02 0.04 August (f) 0.45 R2.352 R2.397 0.11 R2.388 0.02 0.04 September (f) 0.44 R2.097 R2.138 0.12 R2.138 0.02 0.03 October (f) 0.46 R2.200 R2.666 0.16 R2.266 0.02 0.03 November (f) 0.48 R2.094 R2.142 0.13 R2.142 0.01 0.03 December (f) 0.59 R2.081 R2.141 0.13 R2.141 0.01 0.03 Total (f) R.630 R2.6209 R2.689 1.147 R2.6839 0.19 0.38	Total	(1)	.670	^ℵ 26.171	^R 26.840	.139	[™] 26.840	.018	.038	R 26.896
March (f) .064 R2.251 R2.315 .012 R2.315 .001 .003 April (f) .052 R2.197 R2.249 .011 R2.249 .001 .003 May (f) .043 R2.278 R2.322 .011 R2.322 .002 .003 June (f) .040 R2.215 R2.255 .012 R2.255 .002 .004 July (f) .045 R2.352 R2.397 .011 R2.397 .002 .004 August (f) .045 R2.322 R2.397 .011 R2.397 .002 .004 September (f) .045 R2.322 R2.388 .010 R2.388 .002 .004 September (f) .042 R2.097 R2.138 .012 R2.138 .002 .003 October (f) .042 R2.200 R2.266 .016 R2.266 .002 .003 November (f) .048 .2.094 R2.142 .013 R2.142 .001 .003 November (f) .059 R2.081 R2.141 .013 R2.141 .001 .003 Total (f) R.630 R2.6209 R2.6839 .147 R2.6839 .019 .038 2002 January (f) .069 R2.080 R2.149 .013 R2.149 .001 .003 February (f) R.062 R1.918 R1.980 .012 R1.980 R.001 .003 March (f) R.067 R2.210 R2.267 .012 R2.267 R.001 R.003 March (f) R.044 R2.219 R2.264 .012 R2.264 .002 .003 May (f) F.043 2.308 F2.351 .014 2.351 .002 .004		(^f)		R 2.146						R 2.228
April (f) .052 R 2.197 R 2.249 .011 R 2.249 .001 .003 May (f) .043 R 2.278 R 2.322 .011 R 2.322 .002 .003 June (f) .040 R 2.215 R 2.255 .012 R 2.255 .002 .004 July (f) .045 R 2.352 R 2.397 .011 R 2.397 .002 .004 August (f) .045 R 2.322 R 2.368 .010 R 2.368 .002 .004 September (f) .042 R 2.322 R 2.368 .010 R 2.368 .002 .004 September (f) .042 R 2.322 R 2.368 .010 R 2.368 .002 .004 September (f) .046 R 2.220 R 2.266 .016 R 2.266 .002 .003 November (f) .048 2.094 R 2.142 .013 R 2.142 .001 .003		(f)								R 2.027 R 2.320
May (f) .043 R 2.278 R 2.322 .011 R 2.325 .002 .003 June (f) .040 R 2.215 R 2.255 .012 R 2.255 .002 .004 July (f) .045 R 2.352 R 2.397 .011 R 2.255 .002 .004 August (f) .045 R 2.322 R 2.368 .010 R 2.368 .002 .004 September (f) .042 R 2.097 R 2.138 .012 R 2.138 .002 .003 October (f) .046 R 2.220 R 2.266 .016 R 2.266 .002 .003 November (f) .048 2.094 R 2.142 .013 R 2.142 .001 .003 December (f) .059 R 2.081 R 2.141 .013 R 2.141 .001 .003 Total (f) R 630 R 26.209 R 26.839 .147 R 26.839 .019 .038) f \								R 2.253
June (f) .040 R 2.215 R 2.255 .012 R 2.255 .002 .004 July (f) .045 R 2.352 R 2.397 .011 R 2.397 .002 .004 August (f) .045 R 2.322 R 2.368 .010 R 2.368 .002 .004 September (f) .042 R 2.097 R 2.138 .012 R 2.138 .002 .003 October (f) .046 R 2.220 R 2.266 .016 R 2.266 .002 .003 November (f) .048 2.094 R 2.142 .013 R 2.142 .001 .003 December (f) .059 R 2.081 R 2.141 .013 R 2.141 .001 .003 Total (f) R 630 R 26.209 R 26.839 .147 R 26.839 .019 .038 2002 January (f) .069 R 2.080 R 2.149 .013 R 2.149 .001 .003) f \								R 2.326
July (f) .045 R 2.352 R 2.397 .011 R 2.397 .002 .004 August (f) .045 R 2.322 R 2.368 .010 R 2.368 .002 .004 September (f) .042 R 2.097 R 2.138 .012 R 2.138 .002 .003 October (f) .046 R 2.220 R 2.266 .016 R 2.266 .002 .003 November (f) .048 2.094 R 2.142 .013 R 2.142 .001 .003 December (f) .059 R 2.081 R 2.141 .013 R 2.142 .001 .003 Total (f) R 630 R 26.209 R 26.839 .147 R 26.839 .019 .038 2002 January (f) .069 R 2.080 R 2.149 .013 R 2.149 .001 .003 February (f) R .062 R 1.918 R 1.980 .012 R 1.980 R .001 .0) f (R 2.260
August (†) .045 R 2.322 R 2.368 .010 R 2.368 .002 .004 September (†) .042 R 2.097 R 2.138 .012 R 2.138 .002 .003 October (†) .046 R 2.200 R 2.266 .016 R 2.266 .002 .003 November (†) .048 2.094 R 2.142 .013 R 2.142 .001 .003 December (†) .059 R 2.081 R 2.141 .013 R 2.141 .001 .003 Total (†) R 630 R 26.89 R 26.839 .147 R 26.839 .019 .038 2002 January (†) .069 R 2.080 R 2.149 .013 R 2.149 .001 .003 February (†) R .062 R 1.918 R 1.980 .012 R 1.980 R .001 .003 March (†) R .057 R 2.210 R 2.267 .012 R 2.267 R .001 R .003 May (†) F .043 2.308 E 2.351 .014<		(f)		R 2.352			R 2.397			R 2.403
September (†) .042 R 2.097 R 2.138 .012 R 2.138 .002 .003 October (f) .046 R 2.220 R 2.266 .016 R 2.266 .002 .003 November (f) .048 2.094 R 2.142 .013 R 2.142 .001 .003 December (f) .059 R 2.081 R 2.141 .013 R 2.141 .001 .003 Total (f) R 630 R 26.209 R 26.839 .147 R 26.839 .019 .038 2002 January (f) .069 R 2.080 R 2.149 .013 R 2.149 .001 .003 February (f) R .062 R 1.918 R 1.980 .012 R 1.980 R .001 .003 March (f) R .057 R 2.210 R 2.267 .012 R 2.267 R .001 R .003 April (f) R .044 R 2.219 R 2.264 .012 R 2.264 .002	August	(f)		R 2.322	R 2.368	.010	R 2.368	.002	.004	R 2.373
October (†) .046 R 2.220 R 2.266 .016 R 2.266 .002 .003 November (†) .048 2.094 R 2.142 .013 R 2.142 .001 .003 December (†) .059 R 2.081 R 2.141 .013 R 2.141 .001 .003 Total (†) R .630 R 26.209 R 26.839 .147 R 26.839 .019 .038 2002 January (†) .069 R 2.080 R 2.149 .013 R 2.149 .001 .003 February (†) R .062 R 1.918 R 1.980 .012 R 1.980 R .001 .003 March (†) R .057 R 2.210 R 2.267 .012 R 2.267 R .001 R .003 April (†) R .044 R 2.219 R 2.264 .012 R 2.264 .002 .003 May (†) F .043 2.308 E 2.351 .014 2.351 .002 .	September	(†)		R 2.097	R 2.138					R 2.144
December (f) .059 R 2.081 R 2.141 .013 R 2.141 .001 .003 Total (f) R .630 R 26.209 R 26.839 .147 R 26.839 .019 .038 2002 January (f) .069 R 2.080 R 2.149 .013 R 2.149 .001 .003 February (f) R .062 R 1.918 R 1.980 .012 R 1.980 R .001 .003 March (f) R .057 R 2.210 R 2.267 .012 R 2.267 R .001 R .003 April (f) R .044 R 2.219 R 2.264 .012 R 2.264 .002 .003 May (f) F .043 2.308 E 2.351 .014 2.351 .002 .004		(f)			K 2.266		K 2.266			R 2.271
Total (f) R.630 R 26.209 R 26.839 .147 R 26.839 .019 .038 2002 January (f) .069 R 2.080 R 2.149 .013 R 2.149 .001 .003 February (f) R .062 R 1.918 R 1.980 .012 R 1.980 R .001 .003 March (f) R .057 R 2.210 R 2.267 .012 R 2.267 R .001 R .003 April (f) R .044 R 2.219 R 2.264 .012 R 2.264 .002 .003 May (f) F .043 2.308 E 2.351 .014 2.351 .002 .004		(')								2.146 R 2.445
2002 January (f) 0.69 R 2.080 R 2.149 .013 R 2.149 .001 .003 February (f) R .062 R 1.918 R 1.980 .012 R 1.980 R .001 .003 March (f) R .057 R 2.210 R 2.267 .012 R 2.267 R .001 R .003 April (f) R .044 R 2.219 R 2.264 .012 R 2.264 .002 .003 May (f) F .043 2.308 E 2.351 .014 2.351 .002 .004	T-1-1	(†) (f)		R 26.209	R 26.839	4.47				R 2.145 R 26.896
February (f) R.062 R1.918 R1.980 .012 R1.980 R.001 .003 March (f) R.057 R2.210 R2.267 .012 R2.267 R.001 R.003 April (f) R.044 R2.219 R2.264 .012 R2.264 .002 .003 May (f) F.043 2.308 F2.351 .014 2.351 .002 .004		(f)								R 2.153
March	February) f (.069 R 062	∠.UOU R 1 Q18	2.149 R 1 980		∠.149 R 1 980	R 001		R 1.984
April (f) R .044 R 2.219 R 2.264 .012 R 2.264 .002 .003 May (f) F .043 2.308 E 2.351 .014 2.351 .002 .004) f (R 057					R .001	R .003	R 2.272
May (f) F.043 2.308 E2.351 .014 2.351 .002 .004		(f)	R .044						.003	R 2.268
	May	(f)	F.043	2.308	E 2.351	.014	2.351	.002	.004	2.356
5-Month Total (T) = .276 10.735 = 11.011 .062 11.011 .007 .015	5-Month Total	(f)	E .276	10.735	E 11.011	.062	11.011	.007	.015	11.034
2001 5-Month Total (f) .304 10.828 11.132 .061 11.132 .007 .015 2000 5-Month Total (f) .304 10.541 10.845 .055 10.845 .007 .015		(f)								11.154 10.868

a Most nonutility use of fossil fuels to produce electricity is included in the

electricity generation or electricity sold by nonutilities directly to end users.

end-use sectors. See Note 2 at end of section.

b Includes natural gas consumed in the operation of pipelines (primarily in compressors). For 1990-1999, annual values also include natural gas used by vehicles, whereas monthly values do not. See Table 4.4.

c 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.

d Electric utility retail sales of electricity, including nonutility sales of electricity to utilities for distribution to end users; does not include nonutility facility use of onsite

See Note 12 at end of Section.
 Since 1978, the small amounts of coal consumed for transportation are reported as industrial sector consumption.
R=Revised. NA=Not available. E=Estimate. F=Forecast. (s)=Less than 0.5

trillion Btu.

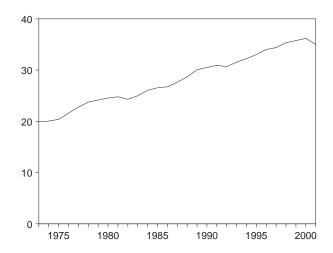
Notes: Totals may not equal sum of components due to independent rounding. Geographic coverage is the 50 States and the District of Columbia.

Web Page: http://www.eia.doe.gov/emeu/mer/consump.html.

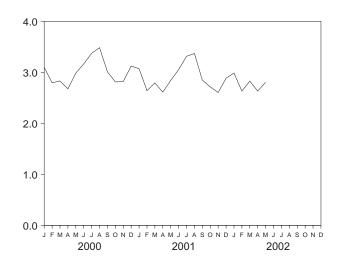
Additional Notes and Sources: See end of section.

Figure 2.6 Electric Power Sector Energy Consumption

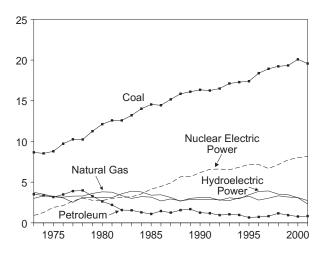
Total, 1973-2001



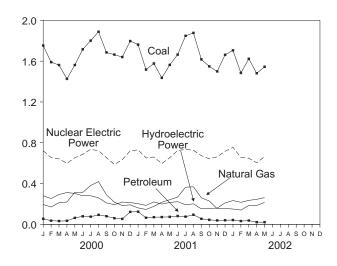
Total, Monthly



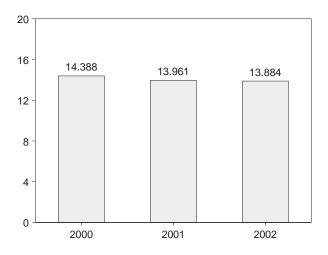
By Major Sources, 1973-2001



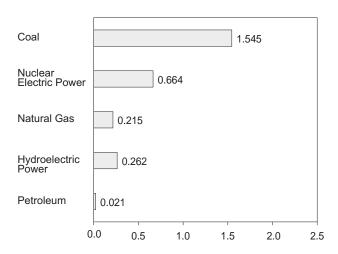
By Major Sources, Monthly



Total, January-May



By Major Sources, May 2002



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.

Table 2.6 Electric Power Sector Energy Consumption

	Primary Consumption												
		F	ossil Fuels ^a				Heater		Renewa	ble Energy			
	Coal	Natural Gas ^b	Petroleum	Otherc	Total	Nuclear Electric Power	Hydro- electric Pumped Storage ^d	Conventional Hydroelectric Power ^e	Wood ^f and Waste ^g	Geo- thermal ^h	Solar ⁱ and Wind ^j	Total	Total Primary
1973 Total	8.658 8.534	3.748 3.519	3.515 3.365	(k) (k)	15.921 15.418	0.910 1.272	(k) (k) (k)	3.010 3.309	0.003	0.043 .053	NA NA	3.056 3.365	19.887 20.055
1975 Total 1976 Total 1977 Total	8.786 9.720 10.262	3.240 3.152 3.284	3.166 3.477 3.901	(k)	15.191 16.349 17.446	1.900 2.111 2.702	(k) (k)	3.219 3.066 2.515	.002 .003 .005	.070 .078 .077	NA NA NA	3.291 3.146 2.597	20.382 21.607 22.746
1978 Total	10.238	3.297	3.987	(k)	17.522	3.024	(k)	3.141	.003	.064	NA	3.209	23.755
1979 Total	11.260	3.613	3.283	(k)	18.156	2.776	(k)	3.141	.005	.084	NA	3.230	24.162
1980 Total	12.123	3.810	2.634	(k)	18.567	2.739	(k)	3.118	.005	.110	NA	3.232	24.538
1981 Total 1982 Total 1983 Total	12.583 12.582 13.213	3.768 3.342 2.998	2.202 1.568 1.544	(k) (k) (k)	18.553 17.491 17.754	3.008 3.131 3.203	(k) (k) (k)	3.105 3.572 3.899	.004 .003 .004	.123 .105 .129	NA NA	3.232 3.680 4.032	24.793 24.303 24.989
1984 Total 1985 Total	14.019 14.542	3.220 3.160	1.286 1.090	(k) (k) (k)	18.526 18.792	3.553 4.149	(k) (k) (k)	3.800 3.398	.009 .014	.165 .198	(s) (s) (s)	3.974 3.611	26.053 26.552
1986 Total	14.444	2.691	1.452	(k)	18.586	4.471	(k)	3.446	.012	.219	(s)	3.678	26.735
1987 Total	15.173	2.935	1.257	(k)	19.365	4.906		3.117	.015	.229	(s)	3.362	27.633
1988 Total	15.850	2.709	1.563	(k)	20.123	5.661		2.662	.017	.217	(s)	2.897	28.681
1989 Total	16.110	2.871	1.685	050	20.615	5.677	(^k)	3.014	.393	.325	.030	3.763	30.055
1990 Total	16.342	2.882	1.250	080	20.395	6.162	036	3.146	.453	.344	.038	3.982	30.502
1991 Total	16.257	2.856	1.178	.059	20.349	6.580	047	3.159	.510	.352	.039	4.061	30.943
1992 Total	16.495	2.826	.951	.053	20.325	6.608	043	2.818	.552	.362	.037	3.769	30.660
1993 Total	17.124	2.741	1.052	.050	20.968	6.520	042	3.119	.570	.374	.040	4.104	31.550
1994 Total	17.284	3.053	.968	.140	21.445	6.838	035	2.993	.587	.378	.044	4.002	32.249
1995 Total	17.402	3.276	.658	.121	21.458	7.177	028	3.481	.584	.319	.041	4.426	33.033
1996 Total	18.385	2.798	.725	.109	22.016	7.168	032	3.892	.594	.331	.044	4.861	34.013
1997 Total	18.924	3.025	.822	.109	22.880	6.678	042	3.961	.568	.306	.042	4.877	34.393
1998 Total	19.227	3.320	1.166	.048	23.761	7.157	046	3.569	.549	.310	.040	4.468	35.340
1999 Total	19.333	3.173	.943	.092	23.540	7.736	063	3.512	^E .669	.316	.055	4.553	35.766
2000 January	E 1.753	.194	.054	.009	2.010	.722	005	E .285	E .056	.025	.004	.371	3.098
February	E 1.590	.170	.036	.011	1.806	.655	004	E .257	E .054	.023	.004	.338	2.795
March	E 1.562	.212	.032	.007	1.813	.643	006	E .298	E .056	.022	.005	.382	2.832
April	E 1.426	.219	.034	.006	1.684	.598	004	E .316	E .054	.023	.006	.399	2.677
May	E 1.562	.315	.063	.007	1.947	.653	005	E .308	E .054	.024	.006	.391	2.986
June	E 1.716	.313	.079	.006	2.114	.686	006	E .286	E .054	.024	.005	.370	3.165
July	E 1.801	.381	.075	.014	2.271	.735	003	E .283	E .058	.026	.005	.372	3.374
August	E 1.888	.419	.093	.014	2.414	.722	004	E .264	E .056	.026	.005	.352	3.484
September October	E 1.685 E 1.664 E 1.640	.289 .218	.079 .060	.009	2.063 1.945	.654 .587	007 004	E .217 E .197 E .221	E .054 E .057 E .055	.025 .026	.005 .005	.301 .285	3.011 2.812
November December Total	E 1.797 20.086	.184 .191 3.104	.053 .122 .779	.006 007 .083	1.883 2.102 24.051	.633 .721 8.009	004 005 057	E .219 3.152	E .055 E .663	.026 .027 .298	.005 .004 .060	.307 .306 4.173	2.819 3.123 36.176
2001 January	E 1.762	.161	.124	.004	2.050	.730	006	E .208	E .060	.027	E.003	.298	3.072
February	E 1.517	.146	.064	004	1.724	.651	005	E .191	E .052	.024		.271	2.641
March	E 1.577	.176	.070	.003	1.826	.660	006	E .225	E .058	.025	E .006	.313	2.794
April	E 1.436	.217	.071	.006	1.730	.595	006	E .205	E .058	.023	E .007	.294	2.612
May	E 1.563	.241	.073	.008	1.885	.654	008	E .222	E .059	.022	E .007	.310	2.841
June	E 1.664	.267	.081	.007	2.018	.723	009	E .231	E .059	.023	E .008	.321	3.053
July	E 1.848	.364	.075	.007	2.293	.735	010	E .201	E .063	.025	E .007	.297	3.315
August	E 1.877	.368	.094	.008	2.346	.726	010	E .211	E .064	.024	E .007	.307	3.370
September	E 1.617	.260	.054	001	1.931	.673	010	E .162	E .061	.024	E.006	.252	2.847
October	E 1.549	.229	.044	.002	1.823	.643	007	E .164	E .062	.024	E.005	.256	2.715
November	E 1.499	.154	.038	.002	1.694	.662	008	E .167	E .062	.024	E.004	.257	2.605
December Total	E 1.662 19.570	.156 2.740	.040	.002 .009	1.867 23.188	.716 8.167	007 091	E .217 2.404	E .063	.025 .292	E .005 .069	.309 3.486	2.886 34.750
2002 January	E 1.706	.150	.042	.008	1.906	.755	007	E .240	E .065	.025	E .002	.332	2.986
February	RE 1.484	R .140	R .032	.006	R 1.663	.656	R006	RE .222	RE .072	.022	RE .006	R .321	R 2.633
March	RE 1.623	R .185	R .037	.004	R 1.848	R .649	R006	RE .241	RE .064	R .023	RE .009	R .336	R 2.828
April		R .185	R .021	.004	R 1.691	R .603	R007	RE .252	RE .062	R .021	RE .011	R .346	R 2.633
May		.215	.021	(s)	1.781	.664	007	E .269	E .063	.021	E .012	.365	2.804
5-Month Total		.876	.153	.022	8.889	3.327	033	E 1.223	E .325	.112	E .040	1.701	13.884
2001 5-Month Total 2000 5-Month Total	E 7.853 E 7.893	.941 1.110	.403 .219	.018 .039	9.215 9.260	3.289 3.271	031 024	E 1.051 E 1.464	E.287	.122 .117	E .027	1.487 1.881	13.961 14.388

Most nonutility use of fossil fuels to produce electricity is included in the end-use sectors. See Note 2 at end of section.
 Includes supplemental gaseous fuels.

byproducts, tires, agricultural byproducts, closed loop biomass, fish oil, and straw. For 1999 forward, data also include electricity net generation from batteries, chemicals, hydrogen, pitch, sulfur, and purchased steam.

h Geothermal electricity net generation. From 1989, also includes electricity imports derived from geothermal energy.

i Solar thermal and photovoltaic electricity net generation.

i Wing electricity net generation.

^c Electricity net imports from fossil fuels; may include some nuclear-generated

<sup>Detectricity net imports from fossil rueis; may include some nuclear-generated electricity.

Detectricity.

Pumped storage facility production minus energy used for pumping.

Conventional hydroelectric net generation. Through 1988, also includes all electricity net imports; from 1989, includes only the portion of electricity net imports derived from hydroelectric power.

Wood, wood waste, black liquor, red liquor, spent sulfite liquor, wood sludge, peat, railroad ties, and utility poles.

Municipal solid waste, landfill gas, methane, digester gas, liquid acetonitrile waste alcohol, medical waste, paper pollete, sludge waste, solid</sup>

waste, tall oil, waste alcohol, medical waste, paper pellets, sludge waste, solid

Wind electricity net generation.

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

Energy Consumption by Sector Notes and Sources

Most of the data in this section of the *Monthly Energy Review (MER)* are 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 Con*sumption by End-Use Sector, A Comparison of Measures by Consumption and Supply Surveys, DOE/EIA-0533, Energy Information Administration, Washington, DC, April 6, 1990.

The following notes provide details about the data in Section 2.

1. Energy Consumption:

Primary Consumption: Includes consumption in the five energy-use sectors (residential, commercial, industrial, transportation, and electric power) of fossil fuels (coal, natural gas, and petroleum), some secondary energy derived from fossil fuels (supplemental gaseous fuels, coal coke net imports, and electricity net imports from fossil fuels), nuclear electric power, pumped-storage hydroelectric power, and renewable energy. 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; electric utility and nonutility net electricity generation from conventional hydroelectric power, wood, waste, geothermal, solar, and wind; and net imports of electricity from hydroelectric power and geothermal energy.

Total Consumption: In addition to primary consumption in the four end-use sectors (residential,

commercial, industrial, and transportation), includes: electric utility retail sales of electricity, including nonutility sales of electricity to utilities for distribution to end users; and electrical system energy losses (see Note 12).

2. Energy-Use Sectors: Energy use is assigned to the five major economic sectors, as closely as possible, following the guidelines below.

Note: Most consumption of fossil fuels at nonutility power producers is included in the end-use sectors, mainly industrial. For further information on nonutility consumption of fossil fuels, see Note 4 ("Coal"), Note 6 ("Natural Gas"), and Note 7 ("Petroleum").

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.

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.

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; agriculture, forestry, and fisheries; mining; and construction. 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.

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.

Electric Power Sector—An energy-consuming sector that consists of all utility and nonutility facilities and equipment used to generate, transmit, and/or distribute electricity.

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 utilities 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, and fisheries 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.

- 3. Conversion Factors: See Appendix A.
- **4. Coal:** See Tables 6.2 and A5.

Note: Coal consumed by "Other Power Producers" (nonutility wholesale producers of electricity, and some nonutility cogeneration plants), is included in the electric power sector (see Table 6.2). Coal consumed by nonutilities not included in "Other Power Producers" is included in the end-use sectors, mainly industrial.

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

Note: 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: Quarterly Coal Report.

6. Natural Gas: See Tables 4.4 and A4.

Note: Natural gas consumed by nonutility power produces is included in the end-use sectors, mainly industrial.

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.

Residential and commercial monthly sales data for 1973-1979, which are used to estimate monthly consumption values from EIA annual consumption values,

are from the American Gas Association, "Monthly Gas Utility Statistical Report."

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

Note: Petroleum consumed by nonutility power producers is included in the end-use sectors, mainly industrial.

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 described below.

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

Asphalt—All asphalt use is assigned to the industrial sector.

Distillate Fuel—Distillate fuel use is assigned to the energy-use sectors as described below.

Distillate Fuel Used by Electric Utilities, 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 at electric utilities. Source: Table 7.7.

Distillate Fuel Used by Sectors Other Than Electric Utilities, Annually Through 1997—The aggregate nonutility use of distillate fuel is total distillate fuel supplied minus the electric utility consumption. The nonutility annual consumption totals are allocated to the individual nonutility sectors (residential, commercial, industrial, and transportation) in proportion to the share of "adjusted sales" of each end-use sector, as reported in EIA's Fuel Oil and Kerosene Sales report series (DOE/EIA-0535), which is based primarily on data collected by Form EIA-821, previously Form EIA-172. "Adjusted sales" are sales that have been adjusted at the PAD district level to equal EIA volume estimates of petroleum products supplied in the U.S. market. Following are notes on the individual sector groupings:

Since 1979, the residential sector adjusted sales total is directly from the *Sales* reports. Prior to 1979, each year's sales subtotal of the heating plus industrial category is

split into residential, commercial, and industrial (including farm) in proportion to the 1979 shares.

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

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

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

Distillate Fuel Used by Sectors Other Than Electric Utilities, Monthly Through 1997—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 1983-1997, EIA, Form EIA-782A, "Refiners'/Gas Plant Operators' Monthly Petroleum Product Sales Report," No. 2 Fuel Oil Sales to End Users and for Resale.

The transportation highway use portion is allocated into the months in proportion to each month's share of the year's total sales for highway use as reported by the Federal Highway Administration's Table MF-25, "Private and Commercial Highway Use of Special Fuels by Months." After 1993, the sales-for-highway-use data are no longer available as a monthly series; the 1993 data are used for allocating succeeding year's totals into months. The remaining transportation use of distillate fuel (i.e., for railroads, vessel bunkering, and military use) is evenly distributed over the months, adjusted for the number of days per month.

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

Distillate Fuel Used by Sectors Other Than Electric Utilities, 1998 Forward—Each month's nonutility consumption subtotal is disaggregated into sectors in proportion to the shares each sector held of the nonutility subtotal in the same month in 1997.

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

Kerosene—Kerosene use is allocated to the sectors in proportion to annual sales grouped into sectors from EIA's *Fuel Oil and Kerosene Sales* reports (based primarily on data collected by Form EIA-821, previously Form EIA-172).

Residential deliveries are taken directly from the *Sales* reports for 1979-1997. Sales for 1997 are used as estimates for succeeding periods. Prior to 1979, each year's sales category called "heating" is split into residential, commercial, and industrial in proportion to the 1979 shares.

Commercial sales are directly from the *Sales* reports for 1979-1997. Sales for 1997 are used as estimates for succeeding periods. Prior to 1979, each year's sales category called "heating" is split into residential, commercial, and industrial in proportion to the 1979 shares.

Industrial sales are directly from the *Sales* reports for 1979-1997. Sales for 1997 are used as estimates for succeeding periods. Prior to 1979, each year's sales category called "heating" is split into residential, commercial and industrial in proportion to the 1979 shares, and this estimated industrial (including farm) portion is added to all other uses.

Liquefied Petroleum Gases (LPG)—The annual shares of LPG's total consumption that are estimated to be 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 28 percent (in 1997) 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 resi-

dential 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 use is assigned to the sectors as described below.

Residual Fuel Used by Electric Utilities, 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 at electric utilities. Source: Table 7.7.

Residual Fuel Used by Sectors Other Than Electric Utilities, Annually Through 1997—The aggregate nonutility use of residual fuel is total residual fuel consumption minus the electric utility consumption. The nonutility annual totals are allocated into the individual nonutility sectors in proportion to the amount of residual fuel sold to end users, grouped into sectors from EIA's Fuel Oil and Kerosene Sales reports (based primarily on data collected by Form EIA-821, previously Form EIA-172), as follows:

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

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

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

Residual Fuel Used by Sectors Other Than Electric Utilities, Monthly Through 1997—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 made by subtracting the commercial, transportation, and electric utility sector estimates from each month's total residual fuel supplied.

Residual Fuel Used by Sectors Other Than Electric Utilities, 1998 Forward—Each month's nonutility consumption subtotal is disaggregated into the sectors in proportion to the shares each sector held of the nonutility subtotal in the same month in 1997.

Road Oil—Road oil use is assigned to the industrial sector.

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

8. Nuclear Electric Power—See Tables 8.1 and A6.

Note: Nuclear electric power is included in the electric power sector.

9. Hydroelectric Pumped Storage—See Tables 7.2 and A6.

Note: Pumped-storage hydroelectric power is included in the electric power sector.

10. Renewable Energy—See Tables 10.2, 10.3a, and 10.3b.

Note: 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: electric utility and nonutility net electricity generation from conventional hydroelectric power, wood, waste, geothermal, solar, and wind; and net imports of electricity from hydroelectric power and geothermal energy.

11. Electricity: End-use consumption of electricity is based on data from Table 7.5 for electric utility retail

sales of electricity (which include nonutility sales of electricity to utilities for distribution to end users, but do not include nonutility facility use of onsite electricity generation or electricity sold by nonutilities directly to end users). "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.

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 electric utility retail sales of electricity (which include nonutility sales of electricity to utilities for distribution to end users, but do not include nonutility facility use of onsite electricity generation or electricity sold by nonutilities directly to end users)--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 11.1 million barrels per day in July 2002, 4 percent lower than the previous month's rate and 5 percent lower than the July 2001 rate.

In July 2002, 19.7 million barrels per day of petroleum products were supplied for domestic use, 1 percent lower than the July 2001 rate. Motor gasoline accounted for 46 percent of the total; distillate fuel oil, 18 percent; and kerosene-type jet fuel, 8 percent.

Motor gasoline product supplied during July 2002 averaged 9.1 million barrels per day, 1 percent lower than the previous month's rate but 1 percent higher than the July 2001 rate. Total motor gasoline stocks were 212 million barrels at the end of July 2002, 4 million barrels below the stock level in the previous

month but 3 million barrels above the level 1 year earlier.

Distillate fuel oil product supplied during July 2002 averaged 3.5 million barrels per day, 5 percent lower than the previous month's rate and 2 percent lower than the July 2001 rate. Distillate fuel oil ending stocks for July 2002 were 135 million barrels, 4 million barrels above the stock level in the previous month and 10 million barrels above the level 1 year earlier.

Kerosene-type jet fuel product supplied in July 2002 averaged 1.6 million barrels per day, 1 percent lower than the previous month's rate and 8 percent lower than the July 2001 rate. Kerosene-type jet fuel stocks measured 39 million barrels at the end of July 2002, the same as the stock level in the previous month but 3 million barrels below the 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 April 2002.

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	n	Stock C	hange ^a		Stocks ^b
	Total Domestic ^c	Crude Oil	Natural Gas Plant Liquids	Crude Oil ^d	Petroleum Products	Petroleum Products Supplied	Crude Oil ^d and Petroleum Products
		1	Thousand Ba	rrels per Day		I	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	^e 15	16,322	1,133
1976 Average	9,774	8,132	f 1,604	39	-96	17,461	1,112
1977 Average	9,913	8,245	1,618	170	378	18,431	1,312
1978 Average	10,328	8,707	1,567	78	-172	18,847	1,278
1979 Average	10,179	8,552	1,584	148	25	18,513	1,341
1980 Average	10,214	8,597	1,573	98	42	17,056	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 1	-29	17,283	1,597
	9,219	7,613	1,546	86	-129 -129	17,325	1,581
1989 Average 1990 Average	8,994	7,355	1,559	-35	142	16,988	1,621
	9.168	7,333 7,417	1,659	-33 -42	32	16,714	1,617
1991 Average	8,996	7,417 7,171	1,697	-42 -1	-68	17,033	e1,592
1992 Average	g 8,836	6,847	1,736	81	e 70	17,033	e1,647
1993 Average					-2		, -
1994 Average	8,645 8,636	6,662	1,727	18 -93		17,718	1,653
1995 Average	8,626	6,560	1,762		-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 January	8,096	5,784	1,956	21	-520	19,026	1,477
February	8,227	5,852	1,987	98	-486	19,635	1,466
March	8,256	5,918	1,987	364	-38	19,218	1,476
April	8,232	5,854	1,968	225	746	18,816	1,505
May	8,196	5,847	1,943	-294	691	19,605	1,518
June	8,106	5,823	1,922	-154	427	20,054	1,526
July	8,073	5,739	1,934	-225	666	19,696	1,540
August	8,087	5,789	1,941	197	-450	20,496	1,532
September	8,066	5,758	1,923	-347	184	19,899	1,527
October	8,151	5,809	1,919	-189	-464	19,798	1,507
November	8,089	5,833	1,876	-281	240	19,328	1,505
December	7,750	5,855	1,583	-250	-971	20,814	1,468
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	E 8,155	E 5.934	1,834	414	-207	19,170	1,592
February	E 8,190	E 5,938	1,898	424	-979	19,475	1,576
March	E 8,167	E 5,914	1,897	198	-379	19,516	1,571
April	E 8,233	E 5,887	1,918	-42	656	19,419	1,589
May	E 8,306	E 5,908	1,937	193	524	19,678	1,611
June	RE 8,181	RE 5,887	R 1,872	R -140	R 197	R 19,810	R 1,613
July	E 8,157	PE 5.813	E 1,919	E -300	E 247	E 19,689	E 1,604
7-Month Average	E 8,198	PE 5,897	E 1,896	E 104	E 18	E 19,537	E 1,604
2001 7-Month Average	7,984	5,810	1,788	144	332	19,769	1,568
	8,169	5,831	1,956	4	215	19,434	1,540

^a A negative number indicates a decrease in stocks and a positive number indicates an increase. Distillate stocks in the "Northeast Heating Oil Reserve"

gasoline and oxygenate production from merchant MTBE (methyl tertiary

barrels per day and greater than -500 barrels per day.

Notes: Crude oil includes lease condensate. Geographic coverage is

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, August 2002, Table S1.

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

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

		Imports			Exports		
	Total	Crude Oila	Petroleum Products	Total	Crude Oil	Petroleum Products	Net Imports ^t
			Tho	usand Barrels p	er Day		
973 Average	6,256	3,244	3,012	231	2	229	6,025
974 Average		3,477	2,635	221	3	218	5,892
975 Average		4,105	1,951	209	6	204	5,846
		5,287	2,026	223	8	215	7,090
976 Average				243	50	193	,
977 Average		6,615	2,193	243 362		204	8,565
978 Average		6,356	2,008	° 471	158	c 236	8,002
979 Average		6,519	1,937		235		^c 7,985
980 Average		5,263	1,646	544	287	258	6,365
981 Average		4,396	1,599	595	228	367	5,401
982 Average		3,488	1,625	815	236	579	4,298
983 Average		3,329	1,722	739	164	575	4,312
984 Average		3,426	2,011	722	181	541	4,715
985 Average	5,067	3,201	1,866	781	204	577	4,286
986 Average	6,224	4,178	2,045	785	154	631	5,439
987 Average	6,678	4,674	2,004	764	151	613	5,914
988 Average		5,107	2,295	815	155	661	6,587
989 Average		5,843	2,217	859	142	717	7,202
990 Average		5,894	2.123	857	109	748	7,161
991 Average		5,782	1,844	1,001	116	885	6,626
992 Average		6,083	1,805	950	89	861	6,938
993 Average	_/::::	6,787	1,833	1,003	98	904	7,618
994 Average		7,063	1,933	942	99	843	8,054
	-,	7,003	1,605	949	95	855	
995 Average							7,886
996 Average		7,508	1,971	981	110	871	8,498
997 Average		8,225	1,936	1,003	108	896	9,158
998 Average		8,706	2,002	945	110	835	9,764
999 Average	10,852	8,731	2,122	940	118	822	9,912
000 January		7,829	2,311	1,006	176	830	9,134
February		8,318	2,684	870	30	840	10,133
March	11,052	8,790	2,261	1,159	144	1,015	9,893
April	11,558	9,341	2,217	1,131	124	1,007	10,427
May	11,415	9,085	2,331	856	34	822	10,559
June	12,032	9,533	2,499	925	9	915	11,107
July	11,588	9,398	2,190	900	15	885	10,688
August		9,939	2,234	1,073	17	1,056	11,099
September		9,484	2,416	1,059	23	1,036	10,841
October		8,969	2,321	1,292	9	1,283	9,998
November		8,913	2,396	1,108	2	1,106	10,201
December		9,229	2,824	1,095	16	1,079	10,958
Average		9,071	2,389	1,040	50	990	10,419
201 January	12,555	8,933	3,623	954	18	936	11,601
001 January February		8,609	3,025	1,004	24	980	10,639
March		9,603	2,530	938	37	901	11,194
		10,111	2,530	942	5	937	11,711
April May		9,885	2,542	1,069	64	1.005	11,711
			, -	976	15	960	
June		9,105	2,627				10,756
July		9,552	2,208	879	11	868	10,881
August		9,383	2,239	1,048	28	1,020	10,573
September		9,339	2,478	825	8	817	10,993
October		9,211	2,168	946	11	935	10,432
November		9,320	2,309	960	9	951	10,669
December		8,839	2,154	1,109	12	1,097	9,885
Average	11,871	9,328	2,543	971	20	951	10,900
002 January		8,646	2,201	861	11	850	9,986
February		8,642	2,127	1,123	4	1,118	9,646
March		8,650	2,307	853	8	845	10,104
April	11,524	9,140	2,384	890	8	882	10,635
May	11.612	9,205	2,407	910	7	903	10,702
June	D	R 9,228	R 2,304	R 880	R 5	R 874	R 10,653
July		E 8,990	E 2,138	E 985	E 30	E 955	E 10,143
7-Month Average		E 8,930	E 2,268	E 926	E 11	^E 916	E 10,272
001 7-Month Average	12,150	9,409	2,741	965	25	941	11,185
	,	0,700	-,	979	76	J-1	,

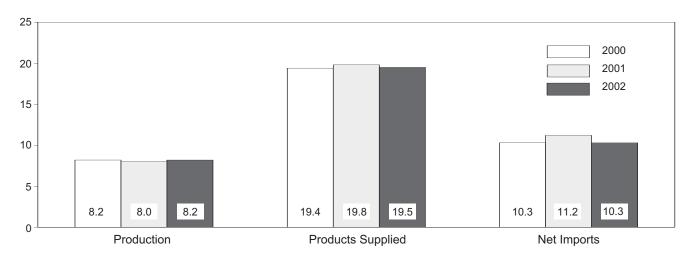
a Includes crude oil for storage in the Strategic Petroleum Reserve.
 b Net imports equals imports minus exports.
 c See Note 6 at end of section.
 R=Revised. E=Estimate.
 Notes: Crude oil includes lease condensate.
 Totals may not equal sum of components due to independent rounding.

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, August 2002, Table S1.

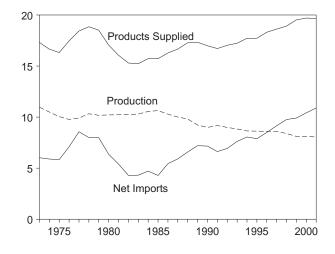
Figure 3.1a Petroleum Overview

(Million Barrels per Day)

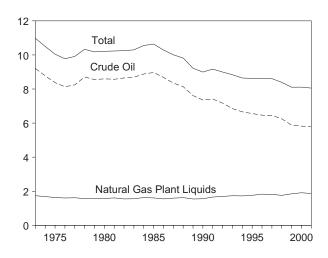
Overview, January-July



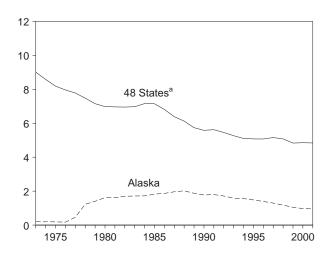
Overview, 1973-2001



Production, 1973-2001

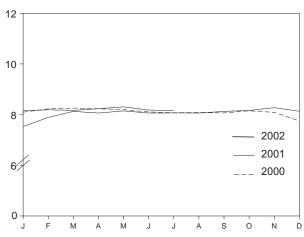


Crude Oil Production, 1973-2001



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

Total Production, Monthly

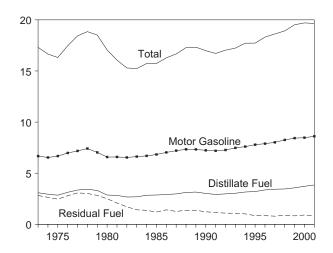


Web Page: http://www.eia.doe.gov/emeu/mer/petro.html. Sources: Tables 3.1a, 3.1b, and 3.2a.

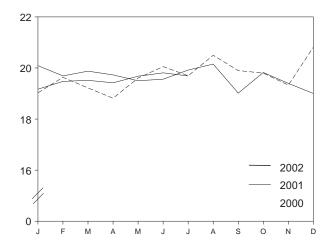
Figure 3.1b Petroleum Overview

(Million Barrels per Day, Except as Noted)

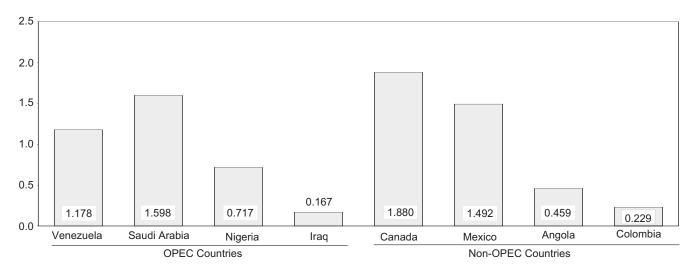
Products Supplied, 1973-2001



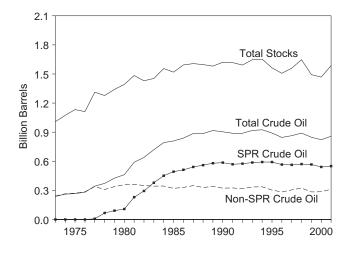
Products Supplied, Monthly



Imports from Selected Countries, June 2002

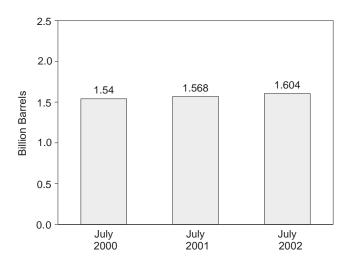


Stocks, End of Year, 1973-2001



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

Total Stocks, End of Month



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, 3.3h, 3.4, 3.5, and 3.6

Table 3.2a Crude Oil Supply and Disposition: Supply

			T	Supply			
	Field Pr	oduction		Imports		Unaccounted-	Crude O
	Total Domestic	Alaskan	Total	SPR ^a	Other	for Crude Oil ^b	Used Directly
			Tho	ousand Barrels per	Day		
973 Average	9,208	198	3,244	_	3,244	3	-19
974 Average	8,774	193	3,477	_	3,477	-25	-15
975 Average	8,375	191	4,105	_	4,105	17	-17
976 Average	8,132	173	5,287	_	5,287	77	d -19
077 Average	8,245	464	6,615	21	6,594	-6	-14
78 Average	8,707	1,229	6,356	d 161	6,195	-57	d -15
79 Average	8,552	1,401	6,519	67	6,452	-11	d -14
80 Average	8,597	1,617	5,263	44	5,219	34	d -14
981 Average	8,572	1,609	4,396	256	4,141	83	-58
82 Average	8,649	1,696	3,488	165	3,323	71	-59
83 Average	8,688	1,714	3,329	234	3,096	114	_
84 Average	8,879	1,722	3,426	197	3,229	185	_
85 Average	8,971	1,825	3,201	118	3,083	145	_
86 Average	8,680	1,867	4,178	48	4,130	139	_
87 Average	8,349	1,962	4,674	73	4,601	145	_
88 Average	8,140	2,017	5,107	51	5,055	196	_
89 Average	7,613	1,874	5,843	56	5,787	200	_
90 Average	7,355	1,773	5,894	27	5,767 5,867	258	_
				0			_
91 Average	7,417	1,798	5,782		5,782	195	
92 Average	7,171	1,714	6,083	10	6,073	258	_
93 Average	6,847	1,582	6,787	15	6,772	168	_
94 Average	6,662	1,559	7,063	12	7,051	266	_
95 Average	6,560	1,484	7,230	0	7,230	193	_
96 Average	6,465	1,393	7,508	0	7,508	215	_
97 Average	6,452	1,296	8,225	0	8,225	145	_
98 Average	6,252	1,175	8,706	0	8,706	115	_
99 Average	5,881	1,050	8,731	8	8,722	191	-
00 January	5,784	1,024	7,829	3	7,826	362	_
February	5,852	1,031	8,318	17	8,301	-14	_
March	5,918	1,013	8,790	0	8,790	412	_
April	5,854	1,008	9,341	0	9,341	206	_
May	5,847	966	9.085	0	9,085	303	_
June	5,823	925	9,533	16	9,518	143	_
July	5,739	913	9,398	15	9,383	471	_
August	5,789	914	9,939	0	9,939	127	_
September	5,758	892	9,484	Ŏ	9,484	-159	_
	5,809	966	8.969	32	8,938	70	_
October			- /	32 17		70 -1	_
November	5,833	986	8,913		8,896	·	_
December Average	5,855 5,822	1,010 970	9,229 9,071	0 8	9,229 9,062	-86 155	_
01 January	5,799	980	8,933	32	8,901	392	
01 January		960 977		0		392 25	_
February	5,780	1.009	8,609	15	8,609	25 64	_
March	5,880	,	9,603		9,588		_
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	_
02 January	E 5,934	E 1,036	8,646	33	8,613	298	_
February	E 5,938	E 1,031	8,642	59	8,583	123	_
March	E 5,914	E 1.036	8,650	0	8,650	94	_
April	E 5,887	E 1,009	9,140	Õ	9,140	270	_
May	E 5,908	E 1,003	9,205	16	9,189	385	_
June	RE 5,887	RE 1,019	R 9,228	R 17	R 9,212	R 79	_
July	PE 5,813	PE 931	E 8,990	E 0	E 8,990	E 390	_
7-Month Average	PE 5,897	PE 1,009	E 8,930	E 17	E 8,913	E 236	_
01 7-Month Average	5,810	^E 967	9,409	13	9,396	176	_
00 7-Month Average	5,831	^E 983	8,900	7	8,892	273	_

^a Strategic Petroleum Reserve.

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.

forward: EIA, Petroleum Supply Monthly, August 2002, Table S2. 1992

b A balancing item.

C Beginning in January 1983, crude oil used directly as fuel is shown as

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

			Disp	osition				Stocksa	
	Crude Losses	Stock C	Change ^b Other	Refinery Inputs	Exports	Product Supplied ^d	Total	SPR ^c	Other Primary
		_		Barrels per Day				Million Barrels	
1973 Average	13 13	<u>-</u> -	-11 62	12,431 12,133	2 3	<u>-</u> -	242 265	<u>-</u> -	242 265
1975 Average 1976 Average 1977 Average 1978 Average	13 ^e 14 16 16	_ _ 20 163	17 39 150 -84	12,442 13,416 14,602 14,739	6 8 50 158	- - -	271 285 348 376	- - 7 67	271 285 340 309
1979 Average	16 ^e 14 5 3	67 45 336 174	81 52 ^f -46 -38	14,648 13,481 12,470 11,774	235 287 228 236	- - -	430 f 466 594 g 644	91 108 230 294	339 f 358 363 g 350
1983 Average 1984 Average 1985 Average	2 2 1	234 195 117	^g -20 4 -67	11,685 12,044 12,002	164 181 204	66 64 60	723 796 814	379 451 493	344 345 321
1986 Average 1987 Average 1988 Average 1989 Average	(s) (s) (s) (s)	50 80 52 56	28 49 -51 30	12,716 12,854 13,246 13,401	154 151 155 142	49 34 40 28	843 890 890 921	512 541 560 580	331 349 330 341
1990 Average	(s) (s) (s) (s)	16 -47 17 34	-51 5 -18 47	13,409 13,301 13,411 13,613	109 116 89 98	24 18 13 10	908 893 893 922	586 569 575 587	323 325 318 335
1994 Average 1995 Average 1996 Average	(s) (s) (s) 0	13 (s) -71 -7	5 -93 -53 57	13,866 13,973 14,195 14,662	99 95 110 108	9 7 6 2	929 895 850 868	592 592 566 563	337 303 284 305
1997 Average 1998 Average 1999 Average	(s) (s)	22 -11	52 -107	14,889 14,804	110 110 118	0	895 852	571 567	324 284
2000 January February March April	0 0 0	41 30 1 0	-20 68 363 225	13,779 14,028 14,613 15,053	176 30 144 124	0 0 0 0	852 855 867 873	568 569 569 569	284 286 297 304
May June July August	0 0 0	0 -17 47 33	-294 -136 -272 164	15,494 15,643 15,819 15,640	34 9 15 17	0 0 0 0	864 860 853 859	569 569 570 571	295 291 282 287
September October November December	0 0 0	-34 -189 -566 -220	-313 (s) 285 -30	15,407 15,029 15,023 15,232	23 9 2 16	0 0 0 0	848 842 834 826	570 564 548 541	278 278 286 286
Average 2001 January	0	-73	3 285	15,067 14,789	50	0	826	541	286 294
February March April May	0 0 0	(s) 20 2 30	-424 841 734 -71	14,813 14,649 15,536 15,763	24 37 5 64	0 0 0	824 851 873 872	542 542 542 543	282 309 331 328
June July August September	0 0 0 0	0 15 0 34	-671 149 -160 (s)	15,650 15,369 15,259 15,005	15 11 28 8	0 0 0 0	852 857 852 854	543 544 544 545	308 313 308 309
October November December Average	0 0 0 0	14 71 94 26	127 -35 -7 73	15,002 15,001 14,688 15,128	11 9 12 20	0 0 0 0	858 860 862 862	545 547 550 550	313 312 312 312
2002 January February March	0 0 0	141 191 50	273 233 149	14,453 14,274 14,452	11 4 8	0 0 0	875 887 893	555 560 561	320 327 331
April	0 0 0 E 0	175 146 ^R 173 ^E 84	-217 47 R -313 E -383	15,332 15,298 R 15,329 E 15,462	8 7 ^R 5 ^E 30	0 0 0 E	892 898 ^R 893 ^E 886	567 571 576 E 578	325 326 R 317 E 307
7-Month Average	E 0	E 136	E-32	E 14,949	E 11	E 0	E 886	E 578	E 307
2001 7-Month Average 2000 7-Month Average	0 0	14 15	129 -11	15,227 14,923	25 76	0	857 853	544 570	313 282

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.

Sum of components due to independent rounding.

Totals may not equal 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.
forward: EIA, Petroleum Supply Monthly, August 2002, Table S2.

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

				Persiar	n Gulf ^a			
	Bal	nrain	I	ran	Ir	aq	Ku	wait ^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	Ö	298	298	26	26	5	1
1977 Average	10	Ö	535	530	74	74	48	42
1978 Average	3	0	555	554	62	62	6	5
1979 Average	ĺ	Ö	304	297	88	88	8	5
1980 Average	(s)	Ŏ	9	8	28	28	27	27
1981 Average	`1	0	0	0	(s)	0	0	0
1982 Average	1	Ŏ	35	35	3	3	5	2
1983 Average	2	Ö	48	48	10	10	14	7
1984 Average	<u>-</u>	Ŏ	10	10	12	12	36	24
1985 Average	4	ŏ	27	27	46	46	21	4
1986 Average	2	ŏ	19	19	81	81	68	28
1987 Average	ō	ŏ	98	98	83	82	84	70
1988 Average	2	ŏ	^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
	2	0	32	32	0	0	6	6
1991 Average 1992 Average	0	0	0	0	0	0	51	39
	1	0	0	0	Ö	Ö	353	344
1993 Average	i	0	0	0	0	0	312	307
1994 Average	1	0	0	0	0	0	218	213
1995 Average	i	0	0	0	1	1	236	235
1996 Average	0	0	0	0	89	89		
1997 Average		-		-			253	253
1998 Average	1	0	0	0	336	336	301	300
1999 Average	0	0	0	0	725	725	248	246
2000 January	0	0	0	0	254	254	239	218
February	0	0	0	0	750	750	267	264
March	0	0	0	0	468	468	162	162
April	0	0	0	0	657	657	264	247
May	0	0	0	0	438	438	170	166
June	0	0	0	0	830	830	210	210
July	0	0	0	0	762	762	264	264
August	0	0	0	0	765	765	405	405
September	0	0	0	0	765	765	352	338
October	0	0	0	0	653	653	337	337
November	0	0	0	0	585	585	248	237
December	10	0	0	0	528	528	344	311
Average	1	0	0	0	620	620	272	263
2001 January	(s)	0	0	0	310	310	247	206
February	0	Ö	Õ	Õ	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	207	207
February	0	0	0	0	706	706	290	279
March	0	0	0	0	780	780	184	179
April	0	0	0	0	583	583	192	185
May	0	0	0	0	436	436	182	163
June	0	0	0	0	167	167	265	243
6-Month Average	0	0	0	0	611	611	219	208
2001 6-Month Average	1	0	0	0	645	645	271	252
2000 6-Month Average	Ô	Ö	Ö	Ö	562	562	218	211

^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 e included.

U.S. geographic coverage is the 50 States and the District of are included. 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, August 2002, Table S3.

Table 3.3b Petroleum Imports From Qatar, Saudi Arabia, U.A.E., and Total Persian Gulf (Thousand Barrels per Day)

				Persiar	n Gulf ^a			
	Q	atar	Saudi	i Arabia ^b	United Ar	ab Emirates	Te	otala
	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)	Ö	168	132	45	35	311	244
1986 Average	13	12	685	618	44	38	912	796
	0	0	751	642	61	56	1,077	949
1987 Average	0	0						
1988 Average	-	-	1,073	911	29	23	1,541	1,357
1989 Average	2	2	1,224	1,116	28 47	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 January	12	0	1,543	1,483	0	0	2,048	1,955
February	2	0	1,317	1,265	25	18	2,362	2,297
March	9	0	1,548	1,490	17	0	2,204	2,120
April	13	0	1,466	1,452	0	0	2,400	2,356
May	9	0	1,566	1,510	34	0	2,218	2,115
June	10	0	1,512	1,436	24	0	2,586	2,476
July	8	0	1,554	1,486	24	15	2,612	2,528
August	6	Ö	1,649	1,587	0	0	2,825	2,756
September	10	Ö	1,669	1,645	31	Õ	2,827	2,748
October	7	Ö	1,499	1,462	9	Ő	2,504	2,451
November	15	0	1,624	1,567	9	0	2,482	2,389
December	3	0	1,897	1,882	9	0	2,791	2,721
Average	9	0	1,572	1,523	15	3	2,488	2,409
2001 Ιορμονί	7	0	1 004	1.620	120	70	2.504	2 224
2001 January			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	1,490	1,464	0	0	2,694	2,660
February	11	0	1,464	1,436	0	0	2,470	2,420
March	0	0	1,541	1,517	0	0	2,505	2,476
April	0	0	1,574	1,556	97	97	2,445	2,420
May	10	0	1,547	1,503	0	0	2,175	2,102
June	10	Ō	1,598	1,565	51	51	2,091	2,027
6-Month Average	7	Ö	1,536	1,507	24	24	2,397	2,351
2001 6-Month Average	17	(s)	1,764	1,689	59	32	2,756	2,618
2000 6-Month Average	9	0	1,494	1,441	17	3	2,300	2,217

^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

(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 U.S. geographic coverage is the 50 States and the District of

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, August 2002, Table S3.

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.

Table 3.3c Petroleum Imports From Algeria, Ecuador, Gabon, Indonesia, and Libya (Thousand Barrels per Day)

					Other	OPEC ^a				
	Alç	geria	Ecu	ıador ^b	Ga	bon ^c	Indo	nesia	L	bya
	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
981 Average	311	261	48	38	35	35	366	318	319	317
982 Average	170	90	42	32	40	40	248	226	26	23
983 Average	240	176	61	56	59	59	338	315	0	0
984 Average	323	194	55	47	58	57	343	304	1	0
985 Average	187	84	67	56	52	51	314	292	4	0
986 Average	271	78	77	64	26	25	318	297	0	0
987 Average	295	115	29	23	35	35	285	262	0	0
988 Average	300	58	47	33	16	15	205	186	0	0
989 Average	269	60	89	80	50	49	183	158	0	0
990 Average	280	63	49	38	64	64	114	98	0	0
991 Average	253	44	63	53	84	84	111	102	0	0
992 Average	196	24	65	62	124	123	78	70	0	0
993 Average	220	24	(b)	(b)	152	151	81	65	0	0
994 Average	243	21	(b)	(b)	194	194	111	92	0	0
995 Average	234	27	(b)	(b)	(°)	(°)	88	64	0	0
996 Average	256	8	(b)	(b)	(°)	(°)	59	44	0	0
997 Average	285	6	(b)	(b)	(°)	(°)	58	51	0	0
998 Average	290	10	(b)	(b)	(°)	(°)	66	50	0	0
999 Average	259	25	(b)	(b)	(°)	(°)	81	70	0	0
2000 January	240	7	(b)	(b)	(c)	(c)	31	22	0	0
February	256	0	(b)	(b)	(c)	(c)	32	28	0	0
March	199	0	(b)	(b)	(°)	(c)	45	45	0	0
April	195	(s)	(b)	(b)	(c)	(c)	91	70	0	0
May	270	0	(b)	(b)	(c)	(c)	35	30	0	0
June	222	0	(b)	(b)	(c)	(c)	46	42	0	0
July	205	0	(b)	(b)	(c)	(c)	20	14	0	0
August	236	0	(b)	(b)	(c)	(°)	61	55	0	0
September	216	0	(b)	(b)	(c)	(^c)	28	28	0	0
October	210	0	(b)	(b)	(c)	(°)	37	34	0	0
November	212	0	(b)	(b)	(°)	(°)	60	29	0	0
December	240	0	(b)	(b)	(°)	(c)	92	41	0	0
Average	225	1	(b)	(b)	(°)	(°)	48	36	0	0
001 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)	65	57	0	0
July	190	0	(b)	(p)	(c)	(c)	29	28	0	0
August	243	0	(b)	(b)	(c)	(c)	38	37	0	0
September	200	0	(b)	(p)	(c)	(c)	26	25	0	0
October	293	0	(b)	(b)	(c)	(c)	39	29	0	0
November	320	37	(b)	(p)	(c)	(c)	22	21	0	0
December	326	0	(b)	(b)	(c)	(c)	51	42	0	0
Average	278	11	(b)	(b)	(°)	(°)	51	40	0	0
002 January	253	0	(b)	(b)	(c)	(c)	80	67	0	0
February	269	0	(b)	(b)	(c)	(c)	104	84	0	0
March	359	75	(b)	(b)	(c)	()	63	63	0	0
April	366	77	(b)	()		(°)	60	58	0	0
May	367	53		(b)	(c)	(c)	83	76	0	0
June	305	19	(b)	(b)	(c)	(c)	57	57	0	0
6-Month Average	321	38	(b)	(b)	(°)	(°)	74	67	0	0
001 6-Month Average	294	16	(b)	(b)	(°)	(°)	69	51	0	0
000 6-Month Average	230	1	(")	(' ')	(~)	()	46	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."

(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
Petroleum Supply Annual 1992, Volume 1, May 1993, Table S3.
forward: EIA, Petroleum Supply Monthly, August 2002, Table S3.

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

			Other	OPECa			Total	OPEC ^b
	Ni	geria	Ven	ezuela	To	otal		
	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil
973 Average	459	448	1,135	344	2,156	1,293	2,993	2,095
974 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
	1,143	1.130	690	250	3,754	3,225	6,193	5,643
1977 Average	919	910	646	181	3,734	2,972	5,751	5,184
978 Average					- ,			-, -
979 Average	1,080	1,069	690	293	3,569	3,063	5,637	5,112
980 Average	857	841	481	156	2,781	2,356	4,300	3,864
981 Average	620	611	406	147	2,106	1,726	3,323	2,922
982 Average	514	510	412	155	1,451	1,075	2,146	1,734
983 Average	302	301	422	164	1,422	1,072	1,862	1,477
984 Average	216	207	548	253	1,544	1,062	2,049	1,512
985 Average	293	280	605	306	1,522	1,069	1,830	1,312
986 Average	440	437	793	416	1.926	1.317	2,837	2.113
987 Average	535	529	804	488	1,983	1,451	3,060	2,400
988 Average	618	607	794	439	1,981	1,339	3,520	2,696
989 Average	815	800	873	495	2,279	1,642	4,140	3,376
	800	784	1,025			1,713	4,296	
990 Average				666	2,332			3,514
991 Average	703	683	1,035	668	2,249	1,634	4,092	3,377
992 Average	681	665	1,170	826	2,313	1,770	4,092	3,406
993 Average	740	722	1,300	1,010	2,493	1,972	4,273	3,609
994 Average	637	624	1,334	1,034	2,520	1,965	4,247	3,580
995 Average	627	621	1,480	1,151	2,430	1,862	4,002	3,341
996 Average	617	595	1,676	1,303	2,609	1,950	4,211	3,438
997 Average	698	689	1,773	1,394	2,814	2,140	4,569	3,775
998 Average	696	689	1,719	1,377	2,771	2,125	4,905	4,169
999 Average	657	623	1,493	1,150	2,489	1,869	4,953	4,228
000 January	490	439	1,360	1.051	2,121	1,519	4.169	3,474
February	657	636	1,600	1,198	2,545	1,863	4,907	4,160
March	1,038	1,005	1,567	1,209	2,850	2,260	5,054	4,379
April	948	931	1,537	1,176	2,771	2,176	5,171	4,533
May	913	902	1,468	1,102	2,686	2,035	4,904	4,150
	1,189	1,136	1,516	1,207	2,972	2,385	5,558	4,861
June								
July	895	876	1,446	1,159	2,566	2,049	5,178	4,577
August	1,122	1,108	1,661	1,429	3,080	2,591	5,904	5,348
September	1,020	1,008	1,378	1,075	2,643	2,112	5,470	4,859
October	946	943	1,610	1,293	2,803	2,270	5,307	4,721
November	851	836	1,632	1,358	2,755	2,222	5,236	4,612
December	686	673	1,776	1,419	2,794	2,132	5,575	4,854
Average	896	875	1,546	1,223	2,716	2,135	5,203	4,544
001 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
	727	690	1,586	1,374	2,594	2,101	5,289	4,763
August	1.057	994	1,282	1,041	2,565	2,101	5,593	4,763
September	842	994 812		1,041				
October			1,511		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
02 January	537	513	1,437	1,247	2,307	1,826	5,001	4,486
February	454	438	1,435	1,212	2,262	1,734	4,733	4,154
March	588	558	1,375	1,130	2,386	1,825	4,891	4,302
April	563	502	1,116	997	2,106	1,634	4,552	4,055
May	552	537	1,286	1,106	2,288	1,772	4,463	3,874
June	717	691	1,178	958	2,257	1,726	4,347	3,753
6-Month Average	570	541	1,304	1,108	2,269	1,754	4,666	4,105
001 6-Month Average	972	923	1,629	1,336	2,963	2,326	5,718	4,944
000 6-Month Average	873	842	1,507	1,156	2,656	2,039	4,957	4,256

^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 implied from West European refining areas may have been

Table 3.3f under "Non-OPEC." Imports from Bahrain are accounted for under "Other Non-OPEC" on Table 3.3h.

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

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.
forward: EIA, Petroleum Supply Monthly, August 2002, Table S3.

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

<u> </u>		Non-OPEC ^a												
	Α	ngola	Αu	stralia	Ва	hamas	Е	Brazil	C	anada	(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		
977 Average	24	17	3	0	171	0	0	0	517	279	0	0		
978 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 49	37 45	1 5	0	78 74	0	3 23	1 14	455 447	199 164	(s) 18	0		
981 Average 982 Average	49	45 42	5	(s)	65	0	47	19	482	214	40	8		
1983 Average	78	71	4	0	125	Ö	41	2	547	274	34	6		
1984 Average	90	85	38	25	88	ŏ	60	(s)	630	341	46	15		
1985 Average	110	104	37	21	40	ŏ	61	(3)	770	468	59	36		
986 Average	112	102	41	30	37	ŏ	50	ŏ	807	570	90	68		
1987 Average	192	180	58	49	37	Ö	84	Ŏ	848	608	82	63		
988 Average	212	203	64	59	32	Ö	98	Ö	999	681	88	82		
989 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		
996 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		
998 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 JanuaryFebruary	249 186	247 177	43 58	43 50	0	0	59 21	0	1,869 1,904	1,378 1,350	7 22	0 21		
March	312	308	44	44	0	0	10	0	1,673	1,261	91	37		
April	348	335	97	70	0	ő	57	ő	1,750	1,323	61	18		
May	378	366	94	65	Ő	ő	33	ő	1,907	1,488	39	28		
June	376	359	56	56	Ö	Ö	102	19	1,830	1,430	55	54		
July	310	310	87	84	Ŏ	Ŏ	88	11	1,775	1,376	44	39		
August	279	279	45	45	0	0	72	17	1,790	1,318	33	32		
September	266	266	42	22	0	0	22	0	1,789	1,321	40	40		
October	266	254	42	42	0	0	37	0	1,716	1,262	70	69		
November	341	329	22	22	0	0	80	13	1,736	1,283	21	20		
December	301	301	42	42	0	0	36	0	1,948	1,380	45	39		
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 31	68 21	14 0	0	87 127	31	1,852	1,391	24 31	14 21		
May	358 302	356 302	22	22	5	0	67	16 0	1,780 1,900	1,368 1,472	26	0		
June	297	285	65	65	0	0	86	0	1,690	1,472	23	20		
July 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	Ö	84	32	1,734	1,316	22	21		
November	267	267	21	21	31	Õ	56	0	1,899	1,414	-0	0		
December	263	263	46	46	10	ŏ	33	ŏ	1,944	1,408	9	ŏ		
Average	328	321	43	34	10	Ŏ	82	13	1,828	1,356	24	13		
2002 January	294	282	41	41	10	0	63	31	1,866	1,299	12	12		
February	276	262	69	69	26	0	67	35	1,838	1,305	45	42		
March	321	300	42	42	26	0	122	65	1,821	1,318	4	0		
April	367	355	66	66	7	0	117	68	1,943	1,434	1	0		
May	353	353	63	63	16	0	144	77	1,912	1,454	16	15		
June	459	446	21	21	16	0	129	69	1,880	1,450	51	34		
6-Month Average	345	333	50	50	17	0	107	58	1,877	1,377	21	17		
2001 6-Month Average	369 309	365 299	49 65	33 55	4 0	0	99	18	1,879	1,388	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.

forward: EIA, Petroleum Supply Monthly, August 2002, Table S3.

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

		Non-OPEC ^a										
	Co	lombia	Ecu	ıador ^b	Ga	abon ^c		Italy	Ма	laysia	Me	exico
	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 0	_	_	_	_	39 51	0	18 66	16 55	87 170	87 177
1977 Average1978 Average	17 20	0	_	_	_	_	38	0	42	37	179 318	316
1979 Average	18	ŏ	_	_	_	_	30	ŏ	66	52	439	437
1980 Average	4	ŏ	_	_	_	_	4	ŏ	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 87	0 57	_	_	_	_	60 76	(s)	3	1	816	715
1986 Average1987 Average	148	115	_	_	_	_	76 54	1	12 13	11 12	699 655	621 602
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 5	0	10	6	984	939
1995 Average1996 Average	219 234	207 226	97 104	96 96	229 184	229 184	8	0	8 11	6 6	1,068 1,244	1,027 1,207
1997 Average	271	270	115	114	230	230	7	Ö	23	8	1,385	1,360
1998 Average	354	349	101	98	207	207	12	ŏ	35	26	1,351	1,321
1999 Average	468	452	118	114	168	168	10	0	35	21	1,324	1,254
2000 January	452	426	83	83	150	150	16	0	84	65	1,340	1,266
February	355	335	102	102	155	155	48	0	71	36	1,237	1,150
March April	464 402	460 370	122 114	122 114	136 172	128 172	29 20	0	34 34	15 25	1,382 1,417	1,286 1,359
May	346	338	91	91	155	155	13	0	35	20	1,362	1,314
June	283	265	106	96	88	88	36	ő	29	14	1,499	1,431
July	237	199	112	112	105	105	18	Ö	55	42	1,311	1,241
August	313	299	190	184	106	106	20	0	21	0	1,426	1,381
September	360	332	205	202	182	182	24	0	15	0	1,494	1,437
October	207	180	166	160	164	164	23	0	86	66	1,263	1,248
November	324	283	141	136	181	181	49	0	21	11	1,340	1,290
December Average	359 342	327 318	104 128	96 125	129 143	129 143	69 30	0 0	59 45	55 29	1,405 1,373	1,348 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 August	239 350	215 326	126 126	117 113	149 98	149 98	55 19	0	13 26	0 10	1,348 1,471	1,322 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	ő	59	34	1,432	1,399
November	278	236	97	97	173	173	47	Ö	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	245	213	104	83	212	212	30	0	33	14	1,352	1,309
February March	369 222	348 214	82 110	77 104	52 124	52 124	37 54	0	22 17	0 0	1,611 1,451	1,579 1,430
April	281	256	81	63	164	164	30	0	18	0	1,451	1,430
May	220	202	88	82	188	188	28	ő	40	22	1,562	1,509
June	229	204	108	105	123	123	16	0	7	0	1,492	1,447
6-Month Average	259	238	96	86	145	145	33	0	23	6	1,486	1,446
2001 6-Month Average 2000 6-Month Average	310 384	268 367	115 103	107 101	146 143	146 141	43 27	0	40 48	16 29	1,362 1,373	1,311 1,301

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

Beginning in October 1977, Strategic Petroleum Reserve imports Notes: 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, August 2002, Table S3.

^{3.3}c. —=Not applicable. (s)=Less than 500 barrels per day.

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

		Non-OPEC ^a											
	Neth	nerlands	Netherla	nds Antilles	N	orway	Pue	rto Rico	Rı	ussia ^b	s	pain	
	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oi	
973 Average	53	0	585	0	1	0	99	0	26	0	26	0	
974 Average	43	0	511	0	1	1	90	0	20	0	12	0	
975 Average	19	4	332	0	17	12	90	0	14	0	1	0	
976 Average	8	0	275	0	36	35	88	0	11	2	1	0	
977 Average	31	4	211	0	50	48	105	0	12	2	10	0	
978 Average	5	2	229	0	104	104	94	0	8	1	3	0	
979 Average	23	7	231	0	75	75	92	0	1	0	4	0	
980 Average	2	(s)	225	0	144	144	88	0	1	0	1	0	
981 Average	30	(s)	197	0	119	114	62	0	5	(s)	1	(s)	
982 Average	35	(s)	175	0	102	102	50	0	1	0	3	(s)	
983 Average	65	` 3	189	0	66	65	40	0	1	(s)	2	(s)	
984 Average	65	3	188	0	114	112	42	0	13	(s)	11	Ò	
985 Average	58	0	40	0	32	31	28	0	8	(s)	29	1	
986 Average	54	0	25	0	60	53	21	0	18	(s)	53	0	
987 Average	60	Ö	29	Ö	80	70	21	Ö	11	``0	55	Ö	
988 Average	61	Ŏ	36	Ŏ	67	62	22	ŏ	29	ŏ	68	Ö	
989 Average	49	ŏ	42	ŏ	138	127	32	ŏ	48	ŏ	67	Ŏ	
990 Average	55	ő	31	ŏ	102	96	32	ŏ	45	ĭ	47	Õ	
991 Average	29	Ö	81	ő	82	74	27	Ö	29	i	33	0	
92 Average	26	ŏ	65	ŏ	127	119	26	ŏ	18	5	32	ŏ	
93 Average	10	ŏ	82	ŏ	142	137	29	ŏ	55	36	37	ŏ	
94 Average	32	ŏ	98	ŏ	202	190	22	ŏ	30	27	37	ŏ	
95 Average	15	ŏ	52	ŏ	273	258	15	ŏ	25	14	16	1	
996 Average	19	Ö	64	ő	313	293	20	0	25	18	29	i	
107 Average	25	0	74	0	309	288	16	0	13	3	29	0	
97 Average	31	0	82	ő	236	221	15	Ö	24	9	18	0	
98 Average 99 Average	27	0	65	0	304	263	13	ő	89	21	10	0	
00 January	12	0	110	0	314	262	14	0	29	0	37	0	
February	45	0	60	0	381	328	15	0	120	0	35	0	
March	39	Ö	74	0	346	305	13	Ö	63	17	23	Ö	
April	21	Ö	41	Ö	397	348	14	Ō	83	25	31	Ö	
May	16	Ö	75	Õ	307	295	20	Ö	44	13	8	Ö	
June	43	Ö	95	Õ	274	240	17	Ö	75	0	28	Ö	
July	8	0	63	Õ	545	482	13	Ö	78	Ö	23	Ö	
August	22	8	138	ő	377	334	11	ŏ	73	6	47	Ő	
September	39	0	56	Ő	363	323	16	0	89	8	21	0	
October	40	0	142	0	306	283	16	0	111	13	20	0	
November	34	0	103	0	293	241	8	0	50	0	6	0	
		0		0	293			0		0		0	
December Average	41 30	1	119 90	0	343	186 302	21 15	0	55 72	7	16 25	0	
01 January	77	0	141	0	321	229	11	0	190	0	58	0	
February	48	Ö	101	0	395	299	8	Ö	183	Ö	47	Ö	
March	48	ŏ	125	ő	400	313	5	ŏ	53	ŏ	35	Ő	
April	23	ŏ	105	ő	382	325	6	ŏ	115	ŏ	19	0	
May	61	0	44	Ő	411	376	3	Ö	88	Ö	31	0	
June	56	0	66	Ő	284	254	12	0	47	Ö	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	73 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	
02 January	7	0	114	0	187	168	0	0	49	0	16	0	
February	34	0	106	0	243	204	0	0	51	0	10	0	
March	47	0	98	0	314	272	0	0	95	12	19	0	
April	93	Ö	80	Ö	612	559	2	Ö	192	36	8	Ō	
May	100	Ō	42	Ō	476	424	0	Ō	363	220	23	Ō	
June	45	Ō	70	Ō	535	498	Ō	Ō	209	78	8	Ō	
6-Month Average	55	Ö	85	Ö	395	355	(s)	Ö	161	59	14	Ŏ	
01 6-Month Average	52	0	97	0	365	299	7	0	112	0	37	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

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

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,* August 2002, Table S3.

produced from Middle East crude oil.

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

(s)=Less than 500 barrels per day.

Table 3.3h Petroleum Imports From Trinidad and Tobago, United Kingdom, U.S. Virgin Islands, Other Non-OPEC, Total Non-OPEC, and Total Imports

					Non	-OPEC ^a						
	Trinidad	and Tobago	United	Kingdom	U.S. Vir	gin Islands	Other N	lon-OPECb	٦	Γotal	Total	Imports
	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	176 133	115 102	176 375	173 369	388 327	0	219 236	162 163	2,609 2.672	1,399 1,474	6,909 5,996	5,263 4,396
1981 Average1982 Average	112	92	456	441	316	ő	306	174	2,968	1,754	5,113	3,488
1983 Average	96	83	382	365	282	ő	378	215	3,189	1,853	5,051	3,329
1984 Average	94	87	402	378	294	ŏ	411	210	3,388	1,914	5,437	3,426
1985 Average	113	98	310	278	247	Ŏ	394	137	3,237	1,888	5,067	3,201
1986 Average	125	93	350	317	244	Ö	426	144	3,387	2,065	6,224	4,178
1987 Average	106	75	352	304	272	Ö	459	196	3,617	2,274	6,678	4,674
1988 Average	97	71	315	254	242	0	487	196	3,882	2,411	7,402	5,107
1989 Average	94	73	215	160	321	0	457	197	3,921	2,467	8,061	5,843
1990 Average	96	76	189	155	282	0	417	180	3,721	2,381	8,018	5,894
1991 Average	88	72	138	106	243	0	282	137	3,535	2,405	7,627	5,782
1992 Average	95	70	230	200	249	0	335	149	3,796	2,676	7,888	6,083
1993 Average	74	55	350	312	254	0	452	240	^c 4,347	^c 3,178	8,620	6,787
1994 Average	77 70	62	458	396	328	0	450	239	4,749	3,483	8,996	7,063
1995 Average	70 76	62 58	383 308	341 216	278 313	0	302 440	181 265	4,833	3,889	8,835	7,230
1996 Average	61	56	226	169	300	0	422	250	5,267 5,593	4,070 4,450	9,478 10,162	7,508 8,225
1997 Average1998 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 January	89	71	273	171	255	0	486	194	5,971	4,355	10,140	7,829
February	71	52	241	149	306	0	660	255	6,095	4,159	11,003	8,318
March	60	37	283	240	226	0	574	150	5,997	4,411	11,052	8,790
April	96	70	444	348	312	0	476	232	6,387	4,808	11,558	9,341
May	77	51	560	449	307	0	645	262	6,512	4,935	11,415	9,085
June	107	52	349	282	356	0	671	286	6,474	4,672	12,032	9,533
July	93 80	54	476	458	267	0	703	307	6,410	4,821	11,588	9,398
August	97	55 58	405 291	343 248	297 323	0	526 695	184 186	6,268 6,430	4,591 4,625	12,173 11,900	9,939 9,484
September October	95	56	381	275	237	0	593	175	5,983	4,248	11,300	8,969
November	80	56	332	263	299	0	613	173	6,073	4,301	11,309	8,913
December	75	55	342	252	318	ő	775	164	6,478	4,376	12,053	9,229
Average	85	56	366	291	291	ŏ	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 70	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 86	58 51	368 314	309 273	320 202	0	739 920	392 469	6,252 6,333	4,565 4,620	11,760 11,622	9,552 9,383
August September	91	51	229	165	283	0	704	221	6,225	4,820	11,818	9,363
October	45	39	365	265	263	0	514	182	5,837	4,379	11,379	9,339
November	68	56	367	278	259	0	656	257	6,531	4,858	11,628	9,320
December	69	69	286	225	247	Ŏ	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	71	71	327	245	266	0	546	181	5,846	4,160	10,847	8,646
February	63	63	378	297	242	0	416	155	6,037	4,488	10,769	8,642
March	73	69	288	236	198	0	621	162	6,066	4,348	10,957	8,650
April	59	59	459	385	192	0	743	227	6,973	5,086	11,524	9,140
May	71	63 77	487	402 570	159	0	799	260 346	7,149	5,331 5,476	11,612	9,205
June 6-Month Average	90 71	77 67	683 436	579 357	236 215	0 0	780 654	346 222	7,185 6,545	5,476 4,815	11,532 11,211	9,228 8,920
2001 6-Month Average	70	48	327	235	273	0	717	193	6,499	4,440	12,217	9,384
2000 6-Month Average	83	56	359	274	293	0	585	229	6,239	4,559	11,196	8,815

^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

(s)=Less than 500 barrels per day.

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

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, August 2002, Table S3.

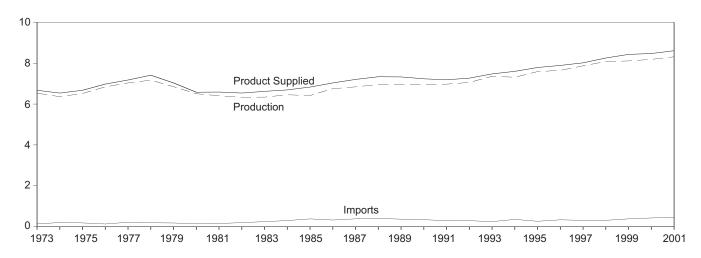
from Middle East crude oil.

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.

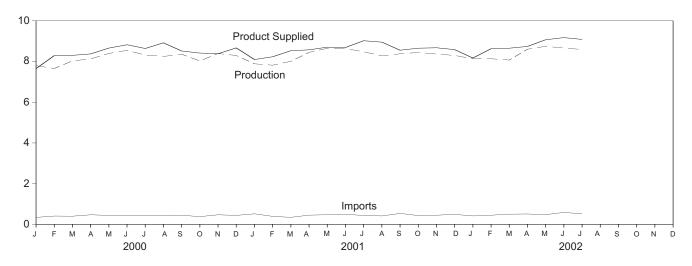
Figure 3.2 Finished Motor Gasoline

(Million Barrels per Day, Except as Noted)

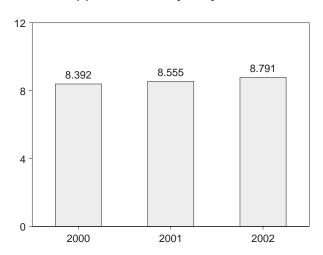
Overview, 1973-2001



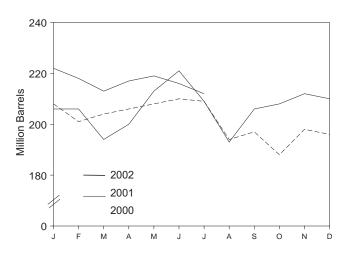
Overview, Monthly



Product Supplied, January-July



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

	Sup	ply		Disposition			Gasoline ocks ^a	
	Total Production	Imports ^b	Stock Change ^{b,c}	Exports	Product Supplied	Totald	Finished	Oxygenates Stocks ^a
		Tho	usand 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 NA
	6,852	181	-2		7,034	237	NA	NA NA
1979 Average	6,506	140		(s) 1	6,579	e 261	NA NA	NA NA
980 Average			66 ^e -28					
1981 Average [†]	6,405	157		2	6,588	253	203	NA
1982 Average	6,338	197	-25	20	6,539	e235	^e 194	NA
983 Average	6,340	247	e-45	10	6,622	222	186	NA
984 Average	6,453	299	54	6	6,693	243	205	NA
985 Average	6,419	381	-41	10	6,831	223	190	NA
986 Average	6,752	326	11	33	7,034	233	194	NA
987 Average	6,841	384	-15	35	7,206	226	189	NA
988 Average	6,956	405	3	22	7,336	228	190	NA
989 Average	6,963	369	-35	39	7,328	213	177	NA
990 Average	6,959	342	10	55	7,235	220	181	NA
			3	82		219	182	NA NA
991 Average	6,975	297			7,188			
992 Average	7,058	294	-11	96	7,268	216	178	NA
993 Average	9 7,360	247	26	105	9 7,476	226	187	^h 13
994 Average	7,312	356	-31	97	7,601	215	176	17
995 Average	7,588	265	-40	104	7,789	202	161	12
996 Average	7,647	336	-12	104	7,891	195	157	13
997 Average	7,870	309	26	137	8,017	210	166	12
998 Average	8,082	311	15	125	8,253	216	172	14
999 Average	8,111	382	-49	111	8,431	193	154	14
000 January	7,798	343	362	127	7,653	208	165	14
February	7,658	410	-306	83	8,291	201	156	15
March	8,032	403	22	108	8,305	204	157	14
April	8,130	472	117	111	8,375	206	161	13
May	8,398	441	52	126	8,661	208	162	14
June	8,550	451	76	100	8,824	210	165	14
July	8,320	435	3	110	8,642	209	165	14
August	8,251	426	-438	194	8,921	194	151	13
	8,358	449	106	184	8,518	197	154	13
September								14
October	8,031	381	-221	217	8,417	188	147	
November	8,394	471	311	170	8,384	198	157	14
December	8,298	443	-120	190	8,670	196	153	12
Average	8,186	427	-3	144	8,472	196	153	12
001 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	8,61 0	210	161	13
002 January	8,131	416	280	96	8,172	222	170	15
February	8,137	451	-144	102	8,630	218	166	14
March	8,073	504	-181	104	8,655	213	160	14
		512	242	134		217	168	14
April	8,606				8,743			
May	8,748 R 0,004	480 R 507	69 R 50	88 R 404	9,071	219	170	15
June	R 8,661	R 587	R -59	R 131	R 9,176	216	R 168	15
July 7-Month Average	E 8,594 E 8,424	E 519 E 496	E -104 E 16	E 128 E 112	E 9,088 E 8,791	E 212 E 212	E 164 E 164	NA NA
_	•	446	44	128	8,555	209	162	13
001 7-Month Average 000 7-Month Average	8,281 8,129	446 422	44 49	109	8,392	209 209	165	13

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

A Serviseu. NA-Not available — day.

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

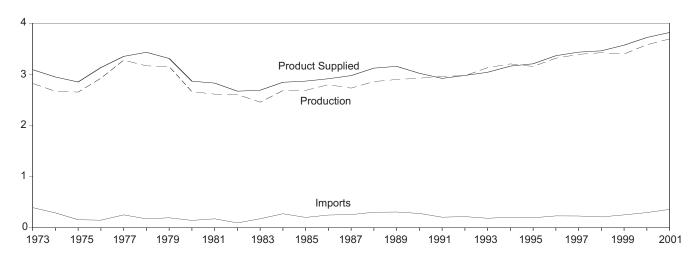
Sources: 1973-1991: Energy Information Administration (EIA), Petroleum Supply Annual 1992, Volume 1, May 1993, Table S4.

1992 forward: EIA, Petroleum Supply Monthly, August 2002, Table S4.

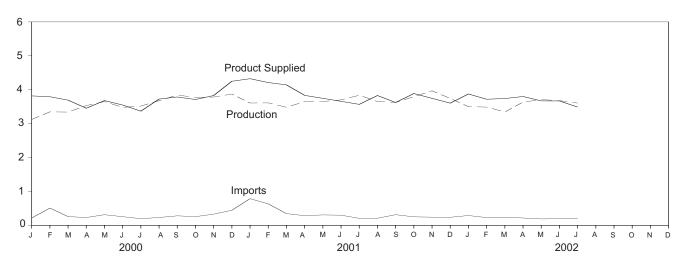
Figure 3.3 Distillate Fuel Oil

(Million Barrels per Day, Except as Noted)

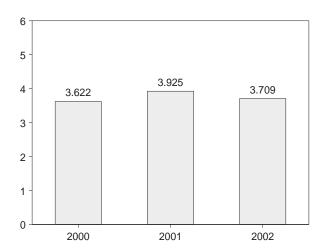
Overview, 1973-2001



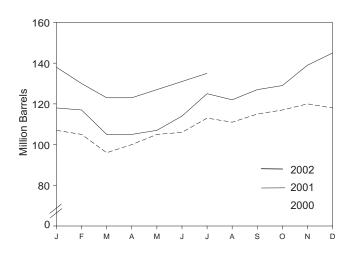
Overview, Monthly



Product Supplied, January-July



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

L	Supply				Disposition		Stocks ^a		
			Courte Oil					Sulfur	Content
	Total Production	Imports	Crude Oil Used Directly ^b	Stock Change ^c	Exports	Product Supplied ^b	Total	0.05 Percent or Less ^d	Greater Than 0.05 Percent ^d
			Thousand Ba	rrels per Day				Million Barrel	s
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 3,278	146 250	1 1	-62 176	1 1	3,133 3,352	186 250	NA NA	NA NA
1977 Average 1978 Average	3,276	173	1	-93	3	3,432	216	NA NA	NA NA
1979 Average	3,153	193	<u>i</u>	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	†-38	_5	2,829	, 192	NA	NA
1982 Average	2,606	93 174	10	-35 ^f -124	74 64	2,671	^f 179 140	NA NA	NA
1983 Average1984 Average	2,456 2,681	272	_	57	64 51	2,690 2,845	161	NA NA	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	306 278	_	-49 73	97 109	3,157	106 132	NA NA	NA NA
1990 Average1991 Average	2,925 2,962	205	_	73 31	215	3,021 2,921	144	NA NA	NA NA
1992 Average	2,974	216	_	-8	219	2,979	141	NA	NA
1993 Average	3,132	184	_	1	274	3,041	141	9 64	9 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 3,392	230 228	_	-10 32	190 152	3,365 3,435	127 138	68 68	58 70
1997 Average 1998 Average	3,424	210	_	48	124	3,461	156	77	70 79
1999 Average	3,399	250	-	-84	162	3,572	125	69	56
2000 January	3,123	218	_	-609	132	3,818	107	66	41
February	3,348	510	_	-49	112	3,794	105	64	41
March	3,342	260	_	-302	211	3,693	96	60	36
April	3,533	234	_	135	178	3,455	100	66	34
May	3,650	316 258	_	158 41	127 149	3,681	105 106	67 68	38 38
June July	3,481 3,520	199	_	219	132	3,549 3,369	113	72	41
August	3,678	234	_	-67	253	3,726	111	66	44
September	3,844	283	_	147	194	3,786	115	68	47
October	3,774	259	_	66	255	3,712	117	68	49
November	3,785	332	_	97	191	3,829	120	71	49
December Average	3,872 3,580	447 295	_	-65 -20	135 173	4,250 3,722	118 118	72 72	46 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 3,837	302 209	_	225 364	120 113	3,659 3,569	114 125	69 74	45 51
July August	3,654	212	_	-102	140	3,829	123	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	3,501	292	-	-192	109	3,875	138	81	57
February March	3,489 3,345	231 239	_	-279 -225	279 67	3,720 3,741	130 123	78 74	52 49
April	3,636	239 219	_	-225 -14	68	3,741	123	74 74	49 48
May	3,709	191	_	155	74	3,671	127	77	50
June	3.679	^R 199	_	^R 115	R 93	R 3,670	^R 131	R 78	^R 53
July	E 3,607	E 211	_	E 174	E 155	E 3,489	E 135	E 77	E 58
7-Month Average	E 3,567	^E 226	-	^E -35	^E 119	E 3,709	^E 135	E 77	^E 58
2001 7-Month Average 2000 7-Month Average	3,650 3,428	410 283	_	34 -60	101 149	3,925 3,622	125 113	74 72	51 41

 ^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.

 ⁹ 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 sunding. Geographic coverage is the 50 States and the District of rounding.

Columbia.

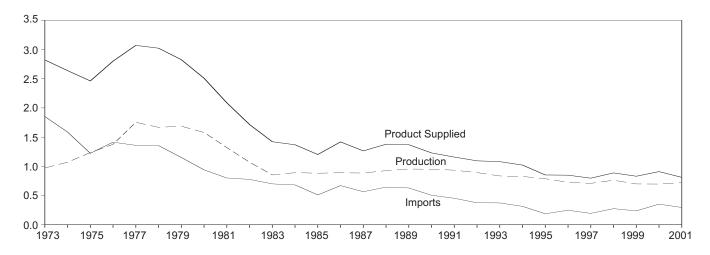
Web Page: http://www.eia.doe.gov/emeu/mer/petro.html.
Sources: 1973-1991: Energy Information Administration (EIA),
Petroleum Supply Annual 1992, Volume 1, May 1993, Table S5.

forward: EIA, Petroleum Supply Monthly, August 2002, Table S5.

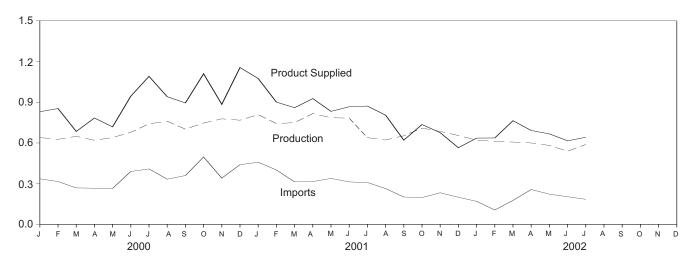
Figure 3.4 Residual Fuel Oil

(Million Barrels per Day, Except as Noted)

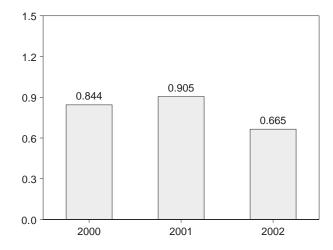
Overview, 1973-2001



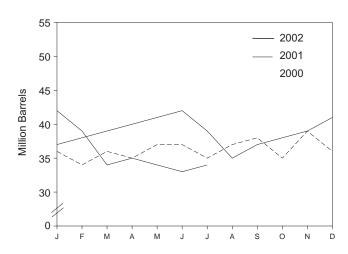
Overview, Monthly



Product Supplied, January-July



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		
	Total Production	Imports	Crude Oil Used Directly ^a	Stock Change ^b	Exports	Product Supplied ^a	Stocks ^c
	-		Thousand Ba	arrels per Day	I	1	Million Barre
1070 4	074	4.050	47	-		0.000	
973 Average974 Average	971 1,070	1,853 1,587	17 13	-5 17	23 14	2,822 2,639	53 d 60
1975 Average	1,235	1,223	15	d -2	15	2,462	74
976 Average	1,377	1,413	17	-5	12	2,801	72
977 Average	1,754	1,359	13	48	6	3,071	90
978 Average	1,667	1,355	13	1	13	3,023	90
979 Average	1,687	1,151	12	15	9	2,826	96
980 Average	1,580	939	12	-10 d -37	33	2,508	d 92
981 Average ^e	1,321 1,070	800 776	48 48	-37 -32	118 209	2,088	78 d 66
982 Average983 Average	852	699	40	d -55	185	1,716 1,421	49
984 Average	891	681	_	12	190	1,369	53
985 Average	882	510	_	-7	197	1,202	50
986 Average	889	669	_	-8	147	1,418	47
987 Average	885	565	-	(s)	186	1,264	47
988 Average	926	644	-	-8	200	1,378	45
989 Average	954	629	-	-2	215	1,370	44
990 Average	950	504	-	13 4	211	1,229	49 50
991 Average	934 892	453 375	_	-20	226 193	1,158	50 43
992 Average993 Average	835	373	_	-20 4	123	1,094 1,080	43
994 Average	826	314	_	-6	125	1,021	42
995 Average	788	187	_	-13	136	852	37
996 Average	726	248	_	24	102	848	46
997 Average	708	194	_	-15	120	797	40
998 Average	762	275	-	12	138	887	45
999 Average	698	237	_	-25	129	830	36
000 January	640	336	_	10	137	830	36
February	627	316	_	-60	149	854	34
March	649	269	_	66	167	685	36
April May	620 640	267 265	_	-37 63	139 123	784 719	35 37
June	679	390	_	-8	133	945	37
July	741	409	_	-54	113	1,091	35
August	760	333	_	57	94	941	37
September	702	360	_	19	148	895	38
October	747	497	_	-87	221	1,110	35
November	778	341	_	133	100	885	39
December	768	440	_	-90	143	1,156	36
Average	696	352	_	1	139	909	36
001 January	809 743	458 401	_	31 44	160 200	1,075 901	37 38
February 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	685 655	233	_	33 60	209 231	676 565	39 41
December Average	655 721	200 295	_	13	191	565 811	41
002 January	621	170	_	18	138	636	42
February	612	106	_	-89	171	637	39
March	607	177	_	-152	171	764	34
April	600	257	_	6	159	692	35
May	582	223	_	-23	160	667	34
June	R 539	R 204	-	R -38	R 165	616	R 33
July 7-Month Average	E 589 E 593	E 185 E 190	_	E -13 E -41	E 145 E 158	E 642 E 665	E 34 E 34
001 7-Month Average	761	350	_	14	191	905	39
000 7-Month Average	657	322	_	-2	137	844	35

 ^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 Challe are asset of paried.

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, August 2002, Table S6.

^c Stocks are at end of period.
^d See Note 4 at end of section.
^e See Note 3 at end of section.

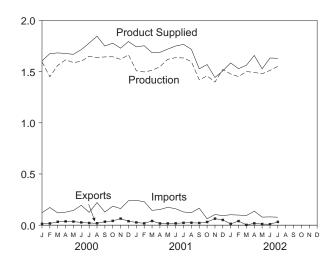
Figure 3.5 **Jet Fuel**

(Million Barrels per Day, Except as Noted)

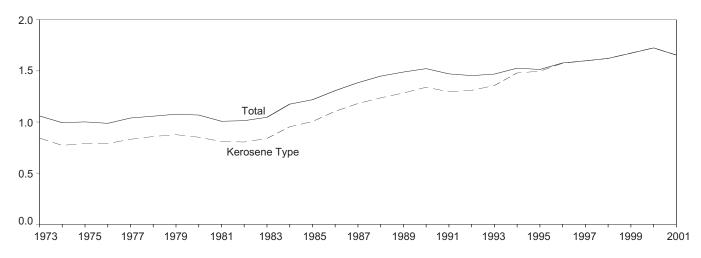
Overview, 1973-2001

2.0 1.5 **Product Supplied** 1.0 Production 0.5 **Exports** Imports 0.0 1985 1990 1975 1980 1995 2000

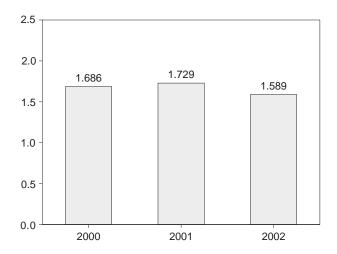
Overview, Monthly



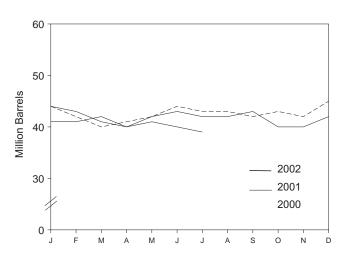
Product Supplied by Type, 1973-2001



Product Supplied, January-July



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			Dis	sposition			
	Р	roduction		Stook		Prod	uct Supplied	:	Stocksa
	Total	Kerosene Type	Imports	Stock Change ^b	Exports	Total	Kerosene Type	Total	Kerosene Typ
			Thous	and Barrels p	er Day			Mil	lion Barrels
1973 Average	859	679	212	8	4	1,059	842	29	23
1974 Average	836	641	163	2	3	993	771	c 29	^c 24
1975 Average	871	691	133	c 2	2	1,001	791	30	25
1976 Average	918	731	76	5	2	987	789	32	26
1977 Average	973	787	75	7	2	1,039	831	35	28
1978 Average	970	791	86	-2	1	1,057	858	34	28
1979 Average	1,012	835	78	13	i	1,076	876	39	33
1980 Average	999	811	80	10	1	1,068	851	c 42	c 36
981 Average	968	775	38	c -4	2	1,007	809	41	34
1982 Average	978	778	29	-12	6	1,013	804	c 37	° 31
	1,022	817	29	c (s)	6	1,013	839	39	32
1983 Average	1,132	919	62	9	9	1,175	953	42	35
1984 Average									
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
988 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 January	1,595	1,595	122	99	13	1,604	1,604	44	44
February	1,450	1,450	173	-70	17	1,676	1,677	42	41
March	1,561	1,561	120	-35	33	1,683	1,682	40	40
April	1,615	1,615	127	28	37	1,677	1,677	41	41
	1,589	1,589	144	28	35	1,669	1,669	42	42
May					27			44	44
June	1,600	1,600	194	52		1,715	1,715		
July	1,650	1,649	125	-25	21	1,779	1,779	43	43
August	1,636	1,636	221	-8	19	1,846	1,846	43	43
September	1,644	1,643	128	-13	34	1,750	1,750	42	42
October	1,645	1,645	186	12	42	1,778	1,778	43	43
November	1,620	1,620	162	-11	64	1,729	1,729	42	42
December	1,665	1,665	239	71	39	1,794	1,796	45	44
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	-79 -6	64	1,443	1,444	40	40
December	1,521	1,521	94	-6 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	102	-18	13	1,585	1,589	41	41
February	1,477	1,451	99	-20	40	1,529	1,529	41	41
March	1,501	1,501	99	31	3	1,562	1,562	42	42
	1,492	1,491	137	-48	18	1,658	1,674	42	40
April	,								
May	1,479	1,479	79 R 04	20	11	1,527	1,535	41	41 R 20
June	R 1,512	R 1,512	R 81	R -49	R g	R 1,633	R 1,642	40 F 20	R 39
July 7-Month Average	E 1,552 E 1,496	E 1,552 E 1,495	E 78 E 96	E -31 E -16	E 32 E 18	E 1,630 E 1,589	E 1,629 E 1,595	E 39	E 39 E 39
ū		•							
2001 7-Month Average 2000 7-Month Average	1,566 1,581	1,565 1,581	176 143	-10 11	23 26	1,729 1,686	1,729 1,686	42 43	42 43

A riegative flumber indicates a decrease in stocks and a positive flumber indicates an increase.
 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.

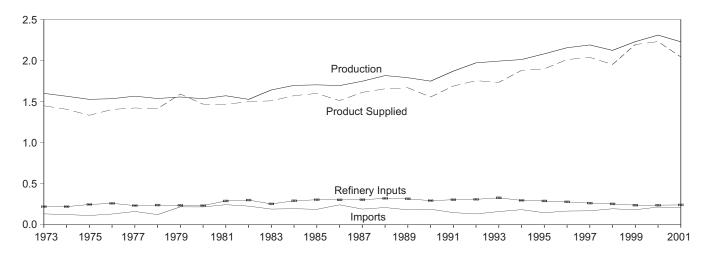
Note: Geographic coverage is the 50 States and the District of Columbia. Web Page: http://www.eia.doe.gov/emeu/mer/petro.html.
Sources: 1973-1991: Energy Information Administration (EIA), Petroleum Supply Annual 1992, Volume 1, May 1993, Table S7. 1992 forward: EIA, Petroleum Supply Monthly, August 2002, Table S7.

a Stocks are at end of period.
 b A negative number indicates a decrease in stocks and a positive number

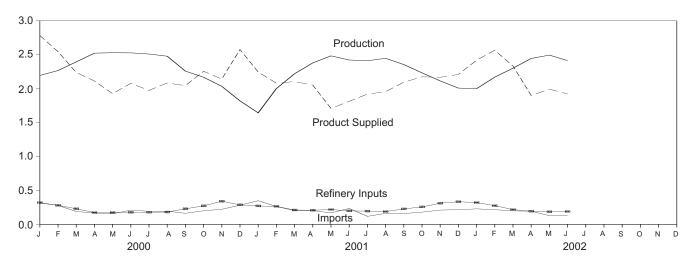
Figure 3.6 Liquefied Petroleum Gases

(Million Barrels per Day, Except as Noted)

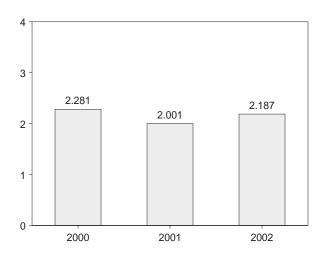
Overview, 1973-2001



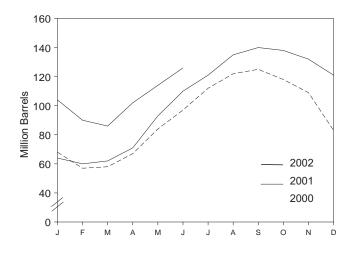
Overview, Monthly



Product Supplied, January-June



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 3.8.

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Table 3.8 Liquefied Petroleum Gases Supply and Disposition

	Sup	ply		Dispo	sition		
	Total Production	Imports	Stock Change ^a	Refinery Inputs	Exports	Product Supplied	Stocksb
			Thousand Ba	arrels per Day			Million Barre
1072 Average	1,600	132	25	220	27	1 440	99
1973 Average		123	35 38	220	27 25	1,449 1,406	° 113
1974 Average	1,565						
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
981 Average	1,571	244	c 18	289	42	1,466	135
1982 Average	d 1,527	226	-111	300	65	1,499	¢ 94
		190	c -4	253	73		° 101
1983 Average	1,642		° -19			1,509	
1984 Average	1,697	195		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
988 Average	1,817	209	1	321	49	1,656	97
1989 Average	1,791	181	-47	315	35	1,668	80
	1,749	188	48	293	40	1,556	98
1990 Average							
991 Average	1,871	147	-15	304	41	1,689	92
1992 Average	1,972	131	-10	309	49	1,755	89
993 Average	1,993	160	49	327	43	1,734	106
994 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
			9	263	50		89
997 Average	2,190	169				2,038	
998 Average	2,124	194	70	253	42	1,952	115
999 Average	2,230	182	-71	238	50	2,195	89
000 January	2,195	315	-696	321	101	2,784	68
February	2,268	281	-359	281	81	2,546	57
March	2,395	190	6	231	109	2,239	58
April	2,524	169	330	174	75	2,114	67
May	2,530	157	548	175	38	1,927	84
	2,528	209	410	179	69	2,079	97
June							
July	2,511	193	486	180	63	1,976	112
August	2,479	195	333	182	76	2,084	122
September	2,259	164	84	230	62	2,046	125
October	2,169	201	-225	273	65	2,257	118
November	2,035	223	-299	342	72	2,143	109
December	1,820	283	-843	288	81	2,577	83
Average	2,310	215	-19	238	74	2,231	83
_	1,644	349	-601	272	75	2,246	64
001 January							
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
	2,448	162	432	189	34	1,956	135
August							
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
002 January	2,001	229	-565	322	52	2,420	104
February	2,171	217	-498	276	44	2,567	90
March	2,302	199	-115	218	64	2,335	86
April	2,446	195	515	195	32	1,900	102
May	2,495	129	378	186	67	1,993	114
June	2,414	133	402	190	31	1,923	126
6-Month Average	2,306	183	23	231	49	2,187	126
001 6-Month Average	2,193	237	153	229	48	2,001	110
000 6-Month Average	2,407	220	40	227	79	2,281	97

 $^{^{\}rm a}\,$ A negative number indicates a decrease in stocks and a positive number indicates an increase.

Notes: Liquefied petroleum gases include ethane, ethylene, propane, propylene, normal butane, butylene, isobutane and isobutylene.

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

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, August 2002, Table S9.

b Stocks are at end of period.

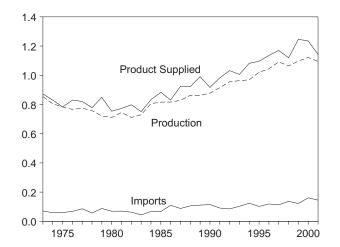
^c See Note 4 at end of section.

d See Note 6 at end of section.

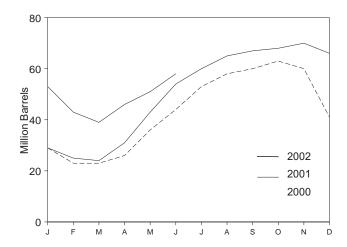
Figure 3.7 Propane and Propylene

(Million Barrels per Day, Except as Noted)

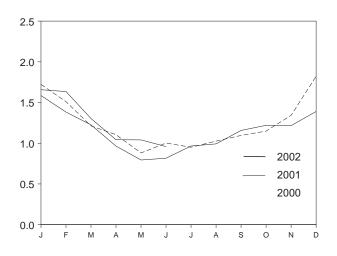
Overview, 1973-2001



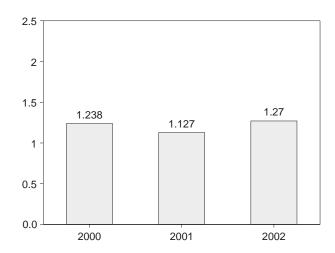
Stocks, End of Month



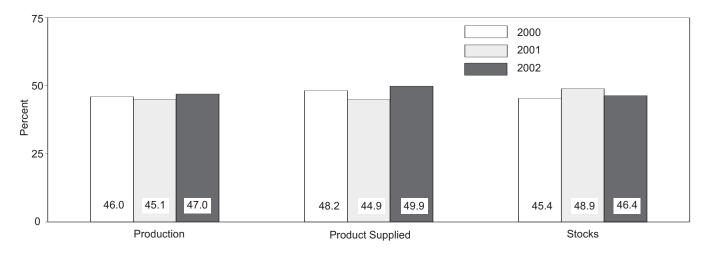
Product Supplied, Monthly



Product Supplied, January-June



Share of Liquefied Petroleum Gases, June



Note: Because vertical scales differ, graphs should not be compared. Web Page: http://www.eia.doe.gov/emeu/mer/petro.html. Sources: 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)

	Sup	ply		Dispo	sition		
	Total Production	Imports	Stock Change ^a	Refinery Inputs	Exports	Product Supplied	Stocks ^b
			Thousand B	arrels per Day			Million Barrels
1973 Average	854	71	30	8	15	872	65
1974 Average	805	59	11	9	14	830	69
1975 Average	783	60	36	11	13	783	82
1976 Average	766	68	-22	12	13	830	74
1977 Average	775	86	21	10	10	821	81
1978 Average	758	57	15	13	9	778	c 87
1979 Average	721	88	c -61	14	8	849	64
1980 Average	711	69	4	12	10	754	^c 65
1981 Average	745	70	^c 18	5	18	773	76
1982 Average	711	63	-59	4	31	798	^c 54
1983 Average	730	44	^c -24	4	43	751	^c 48
1984 Average	806	67	^c 7	4	30	833	58
1985 Average	816	67	-50	3	48	883	39
1986 Average	817	110	64	4	28	831	63
1987 Average	828	88 106	-41 7	8	24	924	48
1988 Average	863 863	106	7 52	8	31	923	50
1989 Average	862 878	111 115	-52 48	11 (s)	24 28	990 917	32 49
1990 Average1991 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	Ŏ	38	1,096	43
1996 Average	1,044	119	(s)	Ŏ	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 January	1,133	244	-439	0	94	1,723	29
February	1,127	221	-215	0	53	1,510	23
March	1,136	142	-19	0	84	1,213	23
April	1,143	125	101	0	62	1,105	26
May	1,153	102	347	0	27	881	36
June	1,163	132	252 278	0 0	40 28	1,002 951	44 53
July	1,133 1,123	125 124	166	0	55	1,026	58
August	1,110	114	87	0	41	1,096	60
September October	1,110	167	80	0	41	1,149	63
November	1,112	189	-97	0	55	1,343	60
December	1,031	248	-603	0	58	1,823	41
Average	1,122	161	-5	ŏ	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	146 175	38	0	26	1,220	68
November	1,135	175 176	68	0	26 35	1,216	70 66
December Average	1,104 1,095	176 145	-145 67	0 0	35 31	1,390 1,142	66 66
2002 January	1,087	197	-414	0	42	1,657	53
February	1,114	177	-379	ő	35	1,635	43
March	1,113	145	-105	0	60	1,304	39
April	1,134	155	221	0	25	1,043	46
May	1,155	86	157	0	43	1,041	51
June	1,134	100	252	0	23	959	58
6-Month Average	1,123	143	-42	0	38	1,270	58
2001 6-Month Average	1,067	162	70	0	32	1,127	54
2000 6-Month Average	1,143	161	5	0	60	1,238	44

 $^{^{\}rm a}$ A negative number indicates a decrease in stocks and a positive number $^{\rm a}$

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*, August 2002, Table S8.

Table 3.10 Other Petroleum Products Supply and Disposition

	Sup	ply		Dispo	sition		_
	Total Production	Imports	Stock Change ^a	Refinery Inputs	Exports	Products Supplied	Stocks ^b
			Thousand Ba	arrels per Day			Million Barrels
973 Average	2,833	290	1	750	162	2,211	179
974 Average	2,722	269	25	665	172	2,129	c 188
975 Average	2,547	144	c -6	537	158	2,001	188
976 Average	2,725	129	(s)	524	172	2,158	188
977 Average	2,939	130	20	514	164	2,371	195
978 Average	3,076	80	-12	492	165	2,511	191
979 Average	3,141	116	24	352	208	2,673	200
980 Average	2,957	130	15 ^ℂ -42	310	197	2,566	^c 205
981 Average	2,771 2,475	188 305	-68	723 787	197 205	2,081 d 1,857	241 ^c 216
983 Average	2,437	382	c-6	712	236	1,877	c 217
984 Average	2,500	503	c -32	791	236	2,007	198
985 Average	2,532	550	22	886	227	1,947	206
986 Average	2,704	504	-15	888	291	2,045	201
987 Average	2,737	543	-1	829	264	2,187	200
988 Average	2,773	645	22	799	294	2,303	208
989 Average	2,771	627	12	797	305	2,285	213
990 Average	2,842	705	-32	887	289	2,402	201
991 Average	2,826	675	18	936	277	2,269	208
992 Average	2,928	707	-3 ° -2	906	263	2,470	^c 207
993 Average	e3,035	770 764		1,081	e300	^e 2,426	206
1994 Average	2,973 3,031	761 708	24 -23	861 958	329 348	2,518 2,457	215 206
995 Average 1996 Average	3,108	879	-23 -11	1,014	376	2,437	200
997 Average	3,204	945	30	985	402	2,733	213
997 Average	3,204	945	30	985	402	2,733	213
998 Average	3,253	888	18	1,002	380	2,741	219
999 Average	3,211	943	-64	1,061	338	2,819	196
2000 January	2,802	977	314	808	319	2,338	206
February	2,945	994	358	710	397	2,473	216
March	3,001	1,019	205	817	387	2,612	222
April	3,146	948	174	1,041	468	2,411	228
May	3,272	1,009	-158	1,117	372	2,949	223
June	3,427	997	-143	1,188	438	2,941	218
July	3,454	828	38	959	446	2,839	220
August	3,341 3,319	826 1,032	-328 -159	1,095 1,192	421 415	2,979 2,904	210 205
September October	3,202	797	-139	998	484	2,525	203
November	3,135	868	8	1,128	509	2,358	205
December	2,798	971	76	835	490	2,368	207
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 3.197	998 1,062	-382	1,432	393 492	2,769 2,893	221 213
August September	3,197	1,062	-287 261	1,162 1.048	334	2,693 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
002 January	2,914	992	271	711	441	2,482	222
February	2,974	1,022	50	1,071	482	2,392	224
March	3,047	1,094	263	982	436	2,459	232
April	3,161	1,064	-47	1,174	472	2,626	230
May	3,127	1,305	-76	1,257	503	2,747	228
June 6-Month Average	3,228 3,076	1,101 1,098	-174 50	1,267 1,076	445 463	2,791 2,585	223 223
· ·	3,076			1,076		2,585	
001 6-Month Average 000 6-Month Average	3,009 3,099	1,164 991	145 124	922 948	458 396	2,648 2,622	233 218

^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.

blending components.

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

Notes: Other petroleum products include pentanes plus, othe 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.
forward: EIA, Petroleum Supply Monthly, August 2002, Table S10.

d See Note 6 at end of section.

Beginning in 1993, other petroleum products production, exports, and products supplied include an adjustment to oxygenates and motor gasoline

Petroleum Notes

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*.

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

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

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

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

4. New Stock Basis: In January 1975, 1979, 1981, and 1983, numerous respondents were added to bulk terminal and pipeline surveys, affecting subsequent stocks reported and stock change calculations. Using the expanded coverage (new basis), the end-of-year stocks, in million barrels, would have been:

Crude Oil: 1982—645 (Total) and 351 (Other Primary).

Crude Oil and Petroleum Products: 1974—1,121; 1980—1,425; and 1982—1,461.

Motor Gasoline: 1974—225; 1980—263 (Total) and 214 (Finished); 1982—244 (Total) and 202 (Finished).

Distillate Fuel Oil: 1974—224; 1980—205; and 1982—186.

Residual Fuel Oil: 1974—75; 1980—91; and 1982—69.

Jet Fuel: 1974—30 (Total) and 24 (Kerosene Type); 1980—42 (Total) and 36 (Kerosene Type); and 1982—39 (Total) and 32 (Kerosene Type).

Liquefied Petroleum Gases: 1974—113; 1978—136; 1980—128; and 1982—102.

Propane and Propylene: 1978—86; 1980—69; and 1982—57.

Other Petroleum Products: 1974—190; 1980—207; and 1982—219.

Stock change calculations beginning in 1975, 1979, 1981, and 1983 were made by using new basis stock levels.

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

- 5. Stocks of Alaskan Crude Oil: Stocks of Alaskan Crude oil in transit were included for the first time in January 1981. The major impact of this change is on the reporting of stock change calculations. Using the expanded coverage (new basis), 1980 end-of-year stocks, in million barrels, would have been 488 (Total) and 380 (Other Primary).
- **6. Data Discrepancies**: Due to differences internal to EIA data processing systems, some small discrepancies exist between data in the *Monthly Energy Review (MER)* and the *Petroleum Supply Annual (PSA)* and *Petroleum Supply Monthly (PSM)*. The data that have discrepancies are footnoted in Section 3 tables and summarized here.

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

Section 4. Natural Gas

Total dry natural gas production in the United States during May 2002 was forecast as 1.6 trillion cubic feet, 4 percent lower than production during May 2001.

Consumption of natural and supplemental gas in May 2002 was forecast as 1.5 trillion cubic feet, 4 percent higher than the level in May 2001.

Deliveries to residential consumers in May 2002 were forecast as 248 billion cubic feet, 16 percent higher than the previous May's deliveries. Total deliveries to industrial consumers during May 2002 were forecast as 747 billion cubic feet, 7 percent higher than the previous May's level.

Net imports of natural gas in May 2002 were forecast as 277 billion cubic feet, 8 percent lower than net imports in the previous May.

Stocks of working gas¹ in underground natural gas storage reservoirs at the end of May 2002 were forecast as 2.0 trillion cubic feet, 37 percent higher than the level of stocks available 1 year earlier.

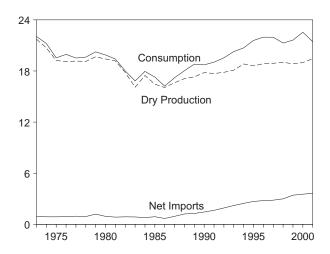
Net injections into underground storage during May 2002 were forecast as 323 billion cubic feet, 28 percent lower than the amount of net injections during May 2001.

¹Gas available for withdrawal.

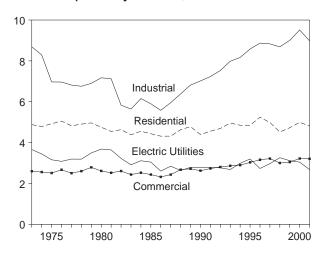
Figure 4.1 Natural Gas

(Trillion Cubic Feet)

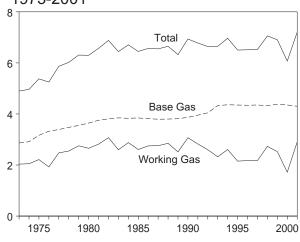
Overview, 1973-2001



Consumption by Sector, 1973-2001

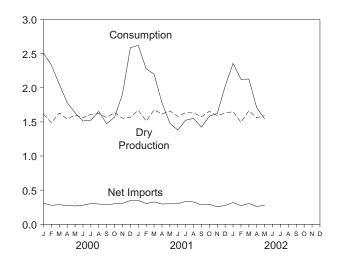


Underground Storage, End of Year, 1973-2001

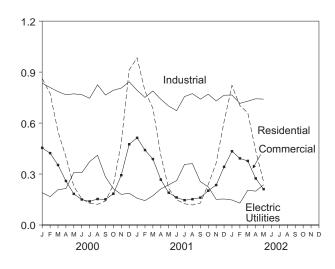


Note: Because vertical scales differ, graphs should not be compared. Web Page: http://www.eia.doe.gov/emeu/mer/natgas.html. Sources: Tables 4.1, 4.4, and 4.5.

Overview, Monthly



Consumption by Sector, Monthly



Underground Storage, End of Month

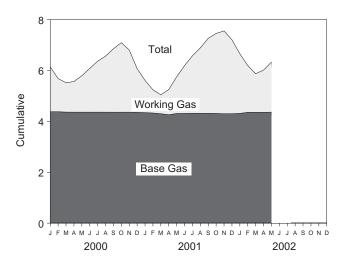


Table 4.1 **Natural Gas Overview**

	Dry Gas Production ^a	Supplemental Gaseous Fuels ^b	Net Language	Net Withdrawals From	Balancing	Concumptionf
	Production	rueis	Imports ^c	Storage ^d	Item ^e	Consumption ^{†,g}
1973 Total	^h 21,731	NA	956	-442	-196	22,049
1974 Total	^h 20,713	NA NA	882	-84	-289	21,223
1975 Total	h19,236	NA	880	-344	-235	19,538
1976 Total	h19,098	NA.	899	165	-216	19,946
1977 Total	^h 19,163	NA	955	-557	-41	19,521
1978 Total	^h 19,122	NA	913	-120	-287	19,627
1979 Total	^h 19,663	NA	1,198	-248	-372	20,241
1980 Total	19,403	155	936	23	-640	19,877
1981 Total	19,181	176	845	-297	_. -500	19,404
1982 Total	17,820	145	882	-308	h-537	18,001
1983 Total	16,094	132	864	447	h-703	16,835
1984 Total	17,466	110	788	-197	-217	17,951
1985 Total	16,454	126	894	235	-428	17,281
1986 Total	16,059	113 101	689 939	-147	-493 -444	16,221
1987 Total	16,621 17,103	101	1,220	-6 59	-444 -453	17,211 18,030
1988 Total 1989 Total	17,103	107	1,220	326	-453 -218	18,801
1990 Total	17,810	123	1,275	-513	-150	18,716
1991 Total	17,698	113	1,644	80	-500	19,035
1992 Total	17,840	118	1,921	173	-508	19,544
1993 Total	18,095	119	2,210	-36	-110	20,279
1994 Total	18,821	111	2,462	-286	-400	20,708
1995 Total	18,599	110	2,687	415	-230	21,581
1996 Total	18,854	109	2,784	2	217	21,966
1997 Total	18,902	103	2,837	24	92	21,959
1998 Total	19,024	102	2,993	-530	-312	21,277
1999 Total	18,832	98	3,422	172	-905	21,620
0000	4.044	0	000	700	000	0.540
2000 January	1,614	9	308	799	-220	2,510
February	1,489	8 7	279	460 455	95	2,331
March April	1,630 1,540	6	286 277	155 -47	-28 6	2,051 1,783
May	1,600	6	268	-237	-5	1,633
June	1,560	5	280	-291	-3 -41	1,513
July	1,611	7	303	-296	-99	1,526
August	1,620	7	298	-201	-71	1,653
September	1,563	6	284	-297	-81	1,475
October	1,638	7	301	-247	-131	1,568
November	1,553	8	305	295	-252	1,909
December	1,568	9	349	735	-74	2,587
Total	18,987	86	3,538	829	-892	22,547
	E 4 6===				D	0
2001 January	E 1,672	E 8	349	467	R 126	2,622
February	E 1,511	E 7 E 7	303	338	R 118	R 2,277
March	E 1,677	E 6	327	181	7 ^R 136	2,199 R 1,770
April	E 1,616 E 1,661	E 5	297 300	-276 -448	* 136 R -36	^R 1,779 ^R 1,483
May June	E 1,580	E 5	300	-448 -422	N -36 R -83	R 1,380
July	E 1,635	- 5 E 7	336	-422 -376	^N -03 R -77	R 1,525
August	E 1,631	= 7 E 6	327	-305	R -108	R 1,551
September	E 1,575	E 6	284	-368	R -73	R 1,423
October	E 1,654	E 6	E 294	-189	R -182	R 1,584
November	E 1.591	E 7	E 256	-85	R -145	R 1 624
December	E 1.630	E 8	E 275	350	R -240	R 2.023
Total	E 19,434	E 77	E 3,647	-1,134	R -556	R 21,468
				•		
2002 January	E 1,650	<u> E</u> 8	318	546	^R -165	R 2,357
February	RE 1.496	E 7	272	462	R -112	R 2,124
March	RE 1,663	E 8	304	320	R -166	R 2,128
April	E 1,561	E 6	RE 261	-126	R 5	R 1,707
May	F 1,591	F 6	F 277	F-323	F-4	F 1,546
5-Month Total	E 7,961	^E 34	^E 1,432	^E 879	E -443	^E 9,862
2001 5-Month Total	E 8,138	E 33	1 577	264	351	10.250
2000 5-Month Total	- 8,138 7,874	37	1,577 1,418	261 1,131	-152	10,359 10,308
2000 J-WOILLI TOLAI	1,014	31	1,410	1,131	-132	10,300

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

a "Marketed Production (wet) Illinus Extraction 2005.

b See Note 4 at end of section.
c "Imports" minus "Exports." See Table 4.3.
d "Withdrawals" minus "Injections." Data for 1980-1999 cover underground storage and liquefied natural gas storage. All other time periods cover underground storage only. See also Note 8 at end of section.
e See Note 7 at end of section. Since 1980, excludes transit shipments that cross the U.S.-Canada border (i.e., natural gas delivered to its destination

that cross the U.S.-Canada border (i.e., natural gas delivered to its destination via the other country).

f See Note 6 at end of section.

g For 1990-1999, annual values include natural gas used by vehicles,

whereas monthly values do not. See Table 4.4.

^h May include unknown quantities of nonhydrocarbon gases.

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

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

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

Sources: 1973-1995: Energy Information Administration (EIA), *Natural Gas Annual 2000*, Table 94. 1996 forward: EIA, *Natural Gas Monthly*, July 2002, Table 2, except for Balancing Item and Consumption, which incorporate the most current electric utilities data from Table 4.4 of this report. Forecast values: Derived from EIA's Short-Term Integrated Forecasting System. See Note 9 at end of section.

Table 4.2 Natural Gas Production

	Gross Withdrawals ^a	Repressuring ^b	Nonhydro- carbon Gases Removed ^c	Vented and Flared ^d	Marketed	Extraction Loss ^f	Dry Gas
	withdrawais	Repressuring	Removed	riared	Productione	LOSS	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
976 Total	20,944	859	NA	132	^h 19,952	854	^h 19,098
977 Total	21,097	935	NA	137	^h 20,025	863	^h 19,163
978 Total	21,309	1,181	NA	153	^h 19,974	852	^h 19,122
979 Total	21,883	1,245	NA	167	^h 20,471	808	^h 19,663
980 Total	21,870	1,365	199	125	20,180	777	19,403
981 Total	21,587	1,312	222	98	19,956	775	19,181
982 Total	20,272	1,388	208	93	18,582	762	17,820
983 Total	18,659	1,458	222	95	16,884	790	16,094
984 Total	20,267	1,630	224	108	18,304	838	17,466
985 Total	19,607	1,915	326	95	17,270	816	16,454
986 Total	19,131	1,838	337	98	16,859	800	16,059
987 Total	20,140	2,208	376 460	124	17,433	812	16,621
988 Total	20,999 21,074	2,478	362	143 142	17,918	816	17,103
989 Total		2,475	289		18,095	785	17,311
990 Total	21,523	2,489 2,772	269 276	150 170	18,594	784 835	17,810
991 Total	21,750 22,132	2,973	280	168	18,532 18,712	872	17,698
1992 Total	22,726	2,973 3,103	414	227	18,982	886	17,840 18,095
994 Total	23,581	3,103	412	228	19,710	889	18,821
1995 Total	23,744	3,565	388	284	19,506	908	18,599
996 Total	24,114	3,511	518	272	19,812	958	18,854
997 Total	24,213	3,492	599	256	19,866	964	18,902
998 Total	24,108	3,427	617	103	19.961	938	19,024
999 Total	23,823	3,293	615	110	19,805	973	18,832
000 January	2,061	302	51	8	1,700	86	1,614
February	1,917	289	50	10	1,569	80	1,489
March	2,085	307	54	7	1,717	87	1,630
April	1,966	282	51	10	1,623	82	1,540
May	2,009	264	52	8	1,686	86	1,600
June	1,971	268	52	8	1,643	83	1,560
July	2,024	264	53	11	1,697	86	1,611
August	2,042	275	53	8	1,707	87	1,620
September	1,985	279	52	8	1,647	84	1,563
October	2,088	302	53	8	1,725	88	1,638
November	1,986	297	45	7	1,636	83	1,553
December Total	2,019 24,153	306 3,434	54 617	7 100	1,652 20,002	84 1,016	1,568 18,987
	•	E 314	E 46	E 9	,	E 89	,
001 January	E 2,131	E 289	E 39	E 8	E 1,762 E 1,592	E 81	E 1,672
February	E 1,928 E 2.154	E 336	E 43	E 9	E 1,592 E 1,767	E 90	E 1,511 E 1,677
March	E 2.059	E 306	E 42	E 8	E 1,703	E 87	E 1,616
April May	E 2,100	E 300	E 41	E 9	E 1,750	E 89	E 1.661
June	E 1,999	E 284	E 41	E 8	E 1.665	E 85	E 1,580
July	E 2,061	E 285	E 43	E 9	E 1,723	E 88	E 1.635
August	E 2.064	E 293	E 43	E 10	E 1,718	E 87	E 1,631
September	E 1,984	E 274	E 42	E 9	E 1.659	E 84	E 1,575
October	E 2,073	E 276	E 44	E 10	E 1,743	E 89	E 1,654
November	E 2,050	E 321	E 43	E 9	E 1.676	E 85	E 1.591
December	E 2,102	E 336	E 40	Εğ	E 1.717	E 87	E 1,630
Total	E 24,703	E 3,615	^E 508	E 106	E 20,474	E 1,040	E 19,434
002 January	RE 2,107	<u> </u>	RE 33	E 9	RE 1,739	E 88	RE 1,650
February	RE 1,918	E 304	RE 30	E 8	RE 1,576	RE 80	RE 1,496
March	RE 2,127	RE 333	RE 34	<u> </u>	^{RE} 1,752	RE 89	RE 1,663
April	RE 1,998	^{RE} 313	RE 31	<u> </u>	E 1,645	E 84	^E 1,561
May	F 2,037	F 320	F 32	F 9	^F 1,676	F 85	^F 1,591
5-Month Total	E 10,187	^E 1,597	E 160	E 44	^E 8,387	E 426	^E 7,961
2001 5-Month Total 2000 5-Month Total	E 10,372 10,039	E 1,546 1,444	^E 210 257	^E 43 43	^E 8,573 8,295	^E 436 421	^E 8,138 7,874

Notes: Totals may not equal sum or 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: 1973-1995: Energy Information Administration (EIA), Natural Gas Annual 2000, Table 93. 1996 forward: EIA, Natural Gas Monthly, July 2002, Table 1. Forecast values: Derived from EIA's Short-Term Integrated Forecasting System. See Note 9 at end of section.

 ^a Gas withdrawn from gas and oil wells.
 ^b The injection of natural gas into oil and gas formations for pressure maintenance and cycling purposes.
 ^c See Note 1 at end of section.

d Vented: Natural gas released into the air on the base site or at processing vented. Industrial gas teriedased into the all on the base site of at processing plants. Flared: Natural gas burned in flares on the base site or at gas processing plants.

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

f See Note 2 at end of section.

See Note 3 at end of section.

Marketed Production (Wet)" minus "Extraction Loss."
 May include unknown quantities of nonhydrocarbon gases.
 R=Revised. NA=Not available. E=Estimate. F=Forecast.

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

Natural Gas Trade by Country Table 4.3

				Impo	orts					Exp	orts	
	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	1,028 959	2 (s)	0	0	0	1,033 959	15 13	48 50	14 13	77 77
1975 Total 1976 Total	5 10	0	948 954	0	0	0 0	0 0	953 964	10 8	53 50	9 7	73 65
1977 Total	11	Ö	997	2	Ŏ	Ŏ	Ŏ	1,011	(s)	52	4	56
1978 Total	84	0	881	0	0	0	0	966	(s)	48	4	53
1979 Total 1980 Total	253 86	0	1,001 797	0 102	0	0 0	0 0	1,253 985	(s) (s)	51 45	4 4	56 49
1981 Total	37	ŏ	762	105	ŏ	ŏ	Ŏ	904	(s)	56	3	59
1982 Total	55	0	783	95	0	0	0	933	(s)	50	2	52
1983 Total 1984 Total	131 36	0	712 755	75 52	0	0 0	0 0	918 843	(s)	53 53	2 2	55 55
1985 Total	24	ő	926	0	0	0	0	950	(s) (s)	53	2	55
1986 Total	0	Ö	749	Ö	Ö	Ö	2	750	9	50	2	61
1987 Total	0	0	993	0	0	0	0	993	3	49	2	54
1988 Total 1989 Total	17 42	0	1,276 1,339	0	0	0 0	0 0	1,294 1,382	20 38	52 51	2 17	74 107
1990 Total	84	ŏ	1,448	ő	ŏ	ő	ő	1,532	17	53	16	86
1991 Total	64	0	1,710	0	0	0	0	1,773	15	54	60	129
1992 Total 1993 Total	43 82	0	2,094 2,267	0 2	0	0 0	0 0	2,138 2,350	68 45	53 56	96 40	216 140
1994 Total	51	ő	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 1998 Total	66 69	10 12	2,899 3,052	17 15	0	0 0	2 5	2,994 3,152	56 40	62 66	38 53	157 159
1999 Total	76	12	3,368	55	20	51	5	3,586	39	64	61	163
2000 January	5	0	310	3	0	8	0	326	6	6	6	18
February March	5 4	0	289 291	1 (s)	0 2	5 8	0 0	300 307	9 9	6 4	6 8	21 21
April	3	2	274	1	7	7	0	294	3	6	8	17
May	2	0	275	0	0	11	0	288	4	6	10	20
June	3 3	0 2	279	0	2 5	7	5 5	296 322	4 4	4 6	9	16
July August	2	0	293 295	(s) (s)	5 7	14 8	5 5	322 318	4	6	10 11	20 21
September	3	1	283	(s)	8	5	5	305	5	6	10	21
October	8	0	296	1	7	7	5	325	5	8	10	23
November December	3 8	(s) 0	309 349	1 4	7 0	7 10	2 0	330 371	10 10	6 6	9 7	25 23
Total	47	6	3,544	12	46	99	28	3,782	73	66	106	244
2001 January	5	0	354	2	0	11	2	374	12	6	8	26
February March	8 8	0	307 335	1	0 2	7 11	8 3	330 360	15 20	4 6	8 7	27 32
April	5	0	297	2	2	8	7	321	13	6	5	24
May	8	0	302	(s)	5	10	5	329	13	6	10	29
June	4 8	0	297 342	0	3 5	10 7	9 5	324 367	10 10	4 6	11 15	25 31
July August	5	1	336	0	0	8	5	356	8	6	16	29
September	5	Ö	295	Ö	5	5	7	317	10	6	18	33
October	2	0	317	0	0	9	0	328	11	8	16	34
November December	3 5	0	285 295	(s) 3	0	5 8	0 0	293 311	16 20	6 6	16 11	37 37
Total	65	2	3,763	10	23	98	50	4,011	157	66	140	364
2002 January	3	0	339	1	0	5	0	348	12	6	12	30
February March	0 0	0	289 327	1 0	0	8 10	0 0	297 337	11 10	4 6	10 18	26 34
April	0	0	R 285	2	2	10	0	R 300	R 14	7	E 18	RE 39
May	0	0	E 296	4	0	9	2	E 311	E 14	2	E 18	E 34
5-Month Total	3	0	E 1,536	8	2	42	2	E 1,593	E 61	24	^E 76	E 162
2001 5-Month Total 2000 5-Month Total	33 19	0 2	1,594 1,439	7 5	10 10	46 39	24 0	1,714 1,514	73 31	26 26	39 39	138 96

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

Sources: 1973-1995: Energy Information Administration (EIA), Form FPC-14, "Annual Report for Importers and Exporters of Natural Gas." 1996 forward: EIA, Natural Gas Monthly, July 2002, Tables 5 and 6.

^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 5 at end of section.
^c Liquefied natural gas imported from Indonesia in 1986 and 2000, the lighted Arab Emirates beginning in 1996. Malavsia in 1999, Nigeria beginning in

United Arab Emirates beginning in 1996, Malaysia in 1999, Nigeria beginning in 2000, and Oman beginning in 2000.

R=Revised. E=Estimate. (s)=Less than 500 million cubic feet.

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

Table 4.4 Natural Gas Consumption by Sector

				D	elivered to Co	nsumers			
	Lease and Plant Fuel	Pipeline Fuel ^a	Residential	Commercial	Industrialb	Vehicles	Electric Utilities	Total	Total Consumption ^c
1973 Total	1,496	728	4,879	2,597	8,689	NA	3,660	19,825	22,049
1974 Total	1,477	669	4,786	2,556	8,292	NA	3,443	19,077	21,223
1975 Total	1,396	583	4,924	2,508	6,968	NA	3,158	17,558	19,538
1976 Total	1,634	548	5,051	2,668	6,964	NA	3,081	17,764	19,946
1977 Total	1,659	533	4,821	2,501	6,815	NA	3,191	17,329	19,521
1978 Total	1,648	530	4,903	2,601	6,757	NA	3,188	17,449	19,627
1979 Total	1,499	601	4,965	2,786	6,899	NA	3,491	18,141	20,241
1980 Total	1,026	635	4,752	2,611	7,172	NA	3,682	18,216	19,877
1981 Total	928	642	4,546	2,520	7,128	NA	3,640	17,834	19,404
1982 Total	1,109	596	4,633	2,606	5,831	NA	3,226	16,295	18,001
1983 Total	978	490	4,381	2,433	5,643	NA	2,911	15,367	16,835
1984 Total	1,077	529	4,555	2,524	6,154	NA	3,111	16.345	17,951
1985 Total	966	504	4,433	2,432	5,901	NA	3,044	15,811	17,281
1986 Total	923	485	4,314	2,318	5,579	NA	2,602	14,814	16,221
1987 Total	1,149	519	4,315	2,430	5,953	NA	2,844	15,542	17,211
1988 Total	1,096	614	4,630	2,670	6,383	NA	2,636	16,320	18,030
1989 Total	1,070	629	4,781	2,718	6,816	NA	2,787	17,102	18,801
1990 Total	1,236	660	4,391	2,623	7,018	(s)	2,787	16,820	18,716
1991 Total	1,129	601	4,556	2,729	7,231	(s)	2,789	17,305	19,035
1992 Total	1,171	588	4,690	2,803	7,527	(3)	2,766	17,786	19,544
1993 Total	1,172	624	4,956	2.862	7,981	i	2,682	18,483	20,279
1994 Total	1,124	685	4,848	2,895	8,167	2	2,987	18,899	20,708
1995 Total	1,220	700	4,850	3,031	8,580	3	3,197	19,660	21,581
	1,250	711	5,241	3,158	8,870	3	2,732		21,966
1996 Total		711 751				4		20,005	
1997 Total	1,203		4,984	3,215	8,832		2,968	20,004	21,959
1998 Total	1,173	635	4,520	2,999	8,686	5	3,258	19,469	21,277
1999 Total	1,079	645	4,726	3,045	9,006	6	3,113	19,895	21,620
2000 January	96	73	862	454	835	NA	190	2,342	2,510
February	89	67	774	423	809	NA	167	2,174	2,331
March	97	59	550	353	785	NA	208	1,894	2,051
April	92	51	401	259	767	NA	215	1,640	1,783
May	94	46	228	183	772	NA	309	1,492	1,633
June	92	43	154	150	767	NA	307	1,378	1,513
July	95	43	128	139	746	NA	373	1,387	1,526
August	96	47	122	153	825	NA	410	1,510	1,653
September	93	42	141	151	765	NA	284	1,340	1,475
October	98	44	236	184	793	NA	213	1,426	1,568
November	93	55	482	293	806	NA	180	1,761	1,909
December	94	75	913	475	843	NA	187	2,418	2,587
Total	1,130	644	4,992	3,218	9,512	8	3,043	20,772	22,547
2001 January	E 100	75	R 982	^R 512	^R 795	NA	158	R 2,447	2,622
February	E 90	65	788	R 439	R 752	NA	144	R 2,122	R 2,277
March	E 100	63	R 686	388	R 790	NA	172	R 2,036	2,199
April	E 96	51	R 411	R 268	R 741	NA	212	R 1,632	R 1,779
May	E 99	42	R 214	190	R 701	NA	236	1,341	R 1,483
June	E 94	39	149	162	673	NA	261	R 1,246	R 1,380
July	E 97	R 44	125	146	756	NA	357	R 1,384	R 1,525
August	E 97	44	118	R 150	R 781	NA	361	R 1,409	R 1,551
September	E 94	41	129	R 158	R 746	NA NA	255	R 1,289	R 1,423
October	E 98	45	239	R 199	R 778	NA NA	225	R 1,441	R 1,584
November	E 95	46	364	R 234	R 733	NA NA	151	R 1,483	R 1,624
	E 97	58	608	R 340	R 767	NA NA	153	R 1,868	R 2,023
December Total	E 1,157	R 614	R 4,813	R 3,185	R 9,013	NA NA	2,686	R 19,698	R 21,468
2002 January	E 98		R 820	R 433	R 792			R 2,191	R 2,357
2002 January	RE 89	67 8 6 1				NA	147 ^{RF} 137		
February	RE 99	R 61	703	392	R 741	NA	RF 181	R 1,974	R 2,124
March		R 56	660 R 447	377	R 756	NA		R 1,974	R 2,128
April	E 95	R 43	R 417	R 271	R 693	NA	RF 188	R 1,569	R 1,707
May	F 100	F 42	F 248	F 198	F 747	NA	F 211	F 1,404	F 1,546
5-Month Total	E 481	E 269	^E 2,848	E 1,670	^E 3,729	NA	^E 865	E 9,112	^E 9,862
2001 5-Month Total	484	296	3,081	1,796	3,779	NA	922	9,579	10,359
2000 5-Month Total	469	296	2,815	1,672	3,967	NA	1,088	9,542	10,308

^a Natural gas consumed in the operation of pipelines, primarily in

Natural gas includes supplemental gaseous fuels. Notes:

compressors.

Description of pipelines, primarily in compressors.

Description of pip

^c For 1990-1999, annual values include natural gas used by vehicles, whereas monthly values do not.

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

⁵⁰⁰ million cubic feet.

not equal sum of components due to independent rounding.

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: 1973-1995: Energy Information Administration (EIA), Natural Gas Annual 2000, Table 95. 1996 forward: EIA, Natural Gas Monthly, July 2002, Table 3, except for the electric utilities values, which come from Table 7.7 of this report, and the totals in this table, which incorporate the electric utilities data. Forecast values: Derived from EIA's Short-Term Integrated Forecasting System Integrated Forecasting System.

Table 4.5 Natural Gas in Underground Storage

(Volumes in Billion Cubic Feet)

	Natural Gas in Underground Storage, End of Period		Change in W From Sam Previou	e Period	Storage Activity			
	Base Gas	Working Gas	Totala	Volume	Percent	Withdrawals	Injections	Net ^{b,c}
1973 Total	2,864	2,034	4,898	305	17.6	1,533	1,974	-442
1974 Total	2,912	2,050	4,962	16	.8	1,701	1,784	-84
1975 Total	3,162	2,212	5,374	162	7.9	1,760	2,104	-344
1976 Total	3,323	1,926	5,250	-286	-12.9	1,921	1,756	165
1977 Total	3,391	2.475	5,866	549	28.5	1,750	2,307	-557
1978 Total	3,473	2,547	6,020	72	2.9	2,158	2,278	-120
1979 Total	3,553	2,753	6,306	207	8.1	2,047	2,295	-248
1980 Total	3,642	2,655	6,297	-99	-3.6	1,910	1,896	14
1981 Total	3,752	2,817	6,569	162	6.1	1,887	2,180	-293
1982 Total	3,808	3,071	6,879	255	9.0	2,094	2,399	-306
1983 Total	3,847	2,595	6,442	-476	-15.5	2,142	1,700	442
1984 Total	3,830	2,876	6,706	281	10.8	2,064	2,252	-188
	3,842	2,607	6,448	-270	-9.4	2,359	2,128	231
1985 Total1986 Total		2,749		142	-9.4 5.5		1,952	-140
1987 Total	3,819	2,756	6,567	7	.3	1,812 1,881	1,887	-140
	3,792		6,548	94	.s 3.4	2,244		69
1988 Total	3,800	2,850	6,650				2,174	
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 January	4,379	1,760	6,139	-312	-15.1	841	59	782
February	4,378	1,304	5,681	-445	-25.3	533	83	450
March	4,364	1,153	5,517	-255	-18.0	291	139	152
April	4,362	1,203	5,565	-297	-19.6	146	192	-46
May	4,362	1,433	5,795	-404	-21.9	82	313	-231
June	4,361	1,717	6,079	-435	-20.1	65	349	-284
July	4,362	2,003	6,365	-379	-15.8	83	372	-289
August	4,361	2,199	6,560	-414	-15.8	109	305	-196
September	4,360	2,494	6,855	-432	-14.7	80	370	-291
October	4,360	2,732	7,092	-345	-11.1	88	329	-241
November	4,361	2,442	6,803	-628	-20.3	396	108	288
December	4,352	1,719	6,071	-806	-31.9	785	66	720
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	559	93	467
February	4,328	912	5,241	-391	-30.0	409	71	338
March	4,300	742	5,042	-412	-35.7	293	113	181
April	4,261	992	5,253	-210	-17.5	68	345	-276
May	4,309	1,440	5,749	7	.5	41	488	-448
June	4,310	1,882	6,193	165	9.6	48	470	-422
July	4,315	2,261	6,576	258	12.9	64	441	-376
August	4,313	2,576	6,889	377	17.1	79	384	-305
September	4,318	2,944	7,262	450	18.0	41	409	-368
October	4,310	3,144	7,454	412	15.1	92	281	-189
November	4,301	3,254	7,555	812	33.2	138	223	-85
December	4,301	2,904	7,204	1,185	68.9	430	80	350
Total	4,301	2,904	7,204	1,185	68.9	2,264	3,399	-1,134
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

^a For total underground storage capacity at the end of each calendar year,

ending stocks. See Note 8 at end of section.

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.

For total underground storage capacity at the end of each calendar year, see Note 8 at end of section.
 For 1980-1998, data differ from those shown on Table 4.1, which includes liquefied natural gas storage for that period.
 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

Natural Gas Notes

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

2. Production.

Annual data—Final annual data are from the EIA NGA.

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

Preliminary monthly data—Monthly data are considered preliminary until after publication of the EIA NGA. Preliminary monthly data are gathered from reports to the Interstate Oil Compact Commission and the U.S. Minerals Management Service. Volumetric data are converted, as necessary, to a standard 14.73 psi pressure base. Unless there are major changes, data are not revised until after publication of the EIA NGA.

Final monthly data—Differences between annual data in the EIA *NGA* and the sum of preliminary monthly data (January-December) are allocated proportionally to the months to create final monthly data.

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

Annual data are from the EIA NGA, where they are estimated on the basis of the type and quantity of liquid products extracted from the gas stream and the calculated volume of such products at standard conditions. For a detailed explanation of the calculations used to derive estimated extraction losses, see the EIA NGA.

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

Monthly data are revised and considered final after the publication of the EIA NGA. Final monthly data are estimated by allocating annual extraction loss data to the months on the basis of total natural gas marketed production data from the EIA NGA.

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

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

Monthly data are considered preliminary until after the publication of the EIA NGA. Monthly estimates are based on the annual ratio of supplemental gaseous fuels to the sum of dry gas production, net imports, and net withdrawals from storage. The ratio is applied to the monthly sum of the three elements to compute a monthly supplemental gaseous fuels figure.

5. Imports and Exports: The United States imports natural gas via pipeline from Canada and Mexico 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.

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

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

7. Balancing Item: The balancing item for natural gas represents the difference between the sum of the components of natural gas supply and the sum of components of natural gas disposition. The differences may be due to quantities lost or to the effects of data

reporting problems. Reporting problems include differences due to the net result of conversions of flow data metered at varying temperature and pressure bases and converted to a standard temperature and pressure base; the effect of variations in company accounting and billing practices; differences between billing cycle and calendar period time frames; and imbalances resulting from the merger of data reporting systems which vary in scope, format, definitions, and type of respondents.

The increase of 0.2 trillion cubic feet (Tcf) in the "Balancing Item" category in 1983, followed by a decline of 0.5 Tcf in 1984, reflected unusually large differences resulting from the use of the annual billing cycle (essentially December 15 through the following December 14) consumption data in conjunction with calendar year supply data. Record cold temperatures during the last half of December 1983 resulted in a reported 0.3 Tcf increase in net withdrawals from underground storage for peak shaving as compared with the same period in 1982, but the effect of this cold weather was reflected primarily in 1984 consumption data. For underground storage data, see Table F2 in the May 1985 NGM, which was published in July 1985.

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

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		

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 1980-1998 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.

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

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.

Sources for Table 4.5

Storage Activity

1973-1975: Energy Information Administration (EIA) *Natural Gas Annual 1994, Volume 2,* Table 9. 1976-1979: EIA, *Natural Gas Production and Consumption 1979,* Table 1.

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

1996 forward: EIA, *Natural Gas Monthly*, July 2002, Table 9.

Forecast values: derived from EIA's Short-Term Integrated Forecasting System. See Note 9 on this page.

Other Data

1973 and 1974: American Gas Association (AGA), Gas Facts, 1972 Data, Table 57, Gas Facts, 1973 Data, Table 57, and Gas Facts, 1974 Data, Table 40. 1975 and 1976: Federal Energy Administration (FEA), Form FEA-G318-M-O, "Underground Gas Storage Report," and Federal Power Commission (FPC), Form FPC-8, "Underground Gas Storage Report."

1977 and 1978: EIA, Form FEA-G-318-M-O, "Underground Gas Storage Report," and Federal Energy Regulatory Commission (FERC), Form FERC-8, "Underground Gas Storage Report."

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

1996 forward: EIA, *Natural Gas Monthly*, July 2002, Table 9.

Forecast values: derived from EIA's Short-Term Integrated Forecasting System. See Note 9 on this page.

Section 5. Crude Oil and Natural Gas Resource Development

The July 2002 rotary rig count was 851, 1 percent higher than the count in June 2002 but 33 percent lower than the count in July 2001. Of the total number of rigs in operation, 740 were onshore and 111 were offshore. For July 2002, the number of onshore rigs was down 34 percent and the number of offshore rigs was down 29 percent from the July 2001 count. Rotary rigs drilling for natural gas as a share of total rigs stood at 84 percent in July 2002.

Total footage drilled in July 2002 was 14.2 million feet, 26 percent higher than the footage drilled in June 2002 but down 20 percent from that drilled in July 2001.

The estimated number of exploratory and development crude oil and natural gas wells drilled during July 2002 was 1,790, up 1 percent from the number drilled in June 2002 but down 37 percent from the number drilled in July 2001. The estimated number of crude oil wells drilled was 422, and the estimated number of

natural gas wells was 1,368, 38 percent lower and 37 percent lower, respectively, than their July 2001 levels.

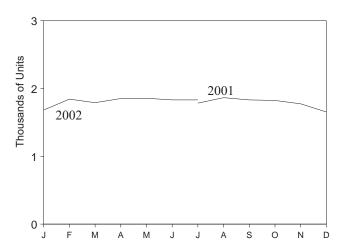
The estimated number of dry holes drilled in July 2002 was 311, up 1 percent from the number drilled in June 2002 but down 16 percent from the number drilled in July 2001.

There were 1.8 thousand well service rigs active in July 2002, the same as in the previous month but 3 percent more than the count a year ago.

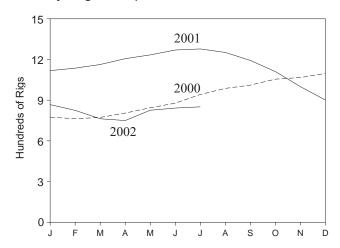
The July 2002 active seismic crew count for the 48 States onshore was 19 percent lower than a year earlier while crew counts for the 48 States offshore were the same as a year earlier. Alaska reported 2 crews active in July 2002 compared with none a year earlier. No four-dimensional seismic crews have been active since December 2001.

Figure 5.1 Oil and Gas Resource Development Indicators

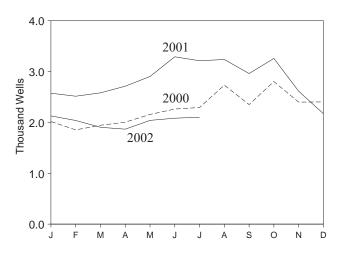
Active Well Service Rig Count



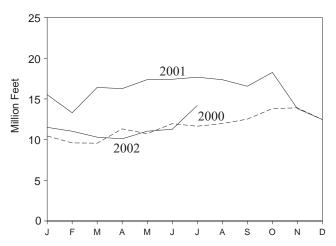
Rotary Rigs in Operation



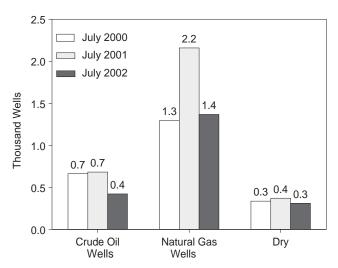
Wells Drilled



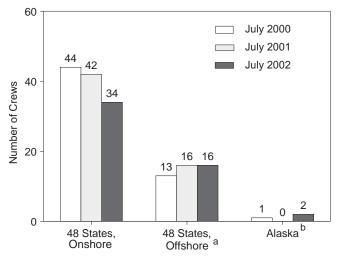
Footage Drilled



Wells Drilled by Type



Maximum U.S. Active Seismic Crew Counts



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

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

Table 5.1 Crude Oil and Natural Gas Drilling Activity Measurements

-		Kot	ary Rigs in Opera ⊺	tion ^a		_		
_		Site	-	pjective	b	Total Footage	Active Well Service	
_	Onshore	Offshore	Crude Oil	Natural Gas	Total ^b	Drilled ^c	Rig Count ^a	
			Average			Thousand Feet	Number	
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	
976 Average	1,529	129	NA	NA	1,658	186,982	NA	
977 Average	1,834	167	NA	NA	2,001	215,866	NA	
978 Average	2,074	185	NA	NA	2,259	238,669	NA	
979 Average	1,970	207	NA NA	NA NA	2,177	244,798	NA	
980 Average	2,678	231	NA NA	NA NA	2,909	314,654	NA	
981 Average	3,714	256	NA NA	NA NA	3,970	413,112	NA	
982 Average	2,862 2,033	243 199	NA NA	NA NA	3,105	378,295	NA	
983 Average	2,033 2,215	213	NA NA	NA NA	2,232 2,428	317,986	NA NA	
984 Average	1,774	206	NA NA	NA NA	1,980	371,392 313 045	NA NA	
985 Average	865	99	NA NA	NA NA	964	313,045	NA NA	
986 Average						181,856		
987 Average	841 813	95 123	NA 554	NA 354	936 936	162,178 156 354	NA NA	
988 Average	764	105	453	354 401	869	156,354	NA NA	
989 Average	764 902	108	453 532	401 464	1,010	134,439 153 701	NA NA	
990 Average991 Average	779	81	482	351	860	153,701 143,021	NA NA	
	669	52	373	331	721		NA NA	
992 Average	672	82 82	373	364	754	121,124 135,118	NA NA	
993 Average	673	102	335	427	775		NA NA	
994 Average	622	102	323	385	723	124,809		
995 Average	671	101	306	464	723 779	117,832 129,045	NA NA	
996 Average	821	122	376	564	943	156.661	NA NA	
	703	123	264	560	827	147,335	NA NA	
998 Average999 Average	519	106	128	496	625	99,410	NA NA	
2000 January	650	125	143	632	775	10,450	NA	
February	641	122	147	616	763	9,602	NA	
March	649	124	173	600	773	9,563	ŇA	
April	680	125	196	609	805	11,324	NA	
May	705	139	199	645	844	10,725	NA	
June	739	139	201	677	878	11,959	NA	
July	784	158	208	733	942	11,648	NA	
August	828	159	206	779	987	11,972	NA	
September	865	146	199	810	1,011	12,521	NA	
October	908	147	212	842	1,055	13,813	NA	
November	916	151	234	832	1,067	13,912	NA	
December	950	147	242	854	1,097	12,460	NA	
Average	778	140	197	720	918	139,949	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	16,416	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	192,430	NA	
002 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	14,198	1,832	
7-Month Average	703	113	139	676	816	79,460	1,813	
001 7-Month Average	1,036	166	235	965	1,202	113,969	NA	
000 7-Month Average	693	133	181	644	826	75,271	NA	

^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

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.

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.

Table 5.2 Crude Oil and Natural Gas Wells Drilled

(Number of Wells)

	Exploratory					Develo	pment		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	
	2,636		12,349	17,499	40.962			74.054				91,553	
1981 Total	2,030	2,514	,		- ,	17,652	15,440	,	43,598	20,166	27,789		
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	,	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	754	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	3,266	20,843	7,064	11,308	4,913	23,285	
1999 Total	154	524	1,195	1,873	3,982	9,887	2,169	16,038	4,136	10,411	3,364	17,911	
2000 January	16	53	119	188	521	1,064	244	1,829	537	1,117	363	2,017	
February	16	58	98	172	459	1,037	185	1,681	475	1,095	283	1,853	
March	21	54	107	182	556	1,009	197	1,762	577	1,063	304	1,944	
April	21	32	100	153	531	1,043	278	1,852	552	1,075	378	2,005	
May	16	42	119	177	600	1,103	277	1,980	616	1,145	396	2,157	
June	27	46	105	178	603	1,269	213	2,085	630	1,315	318	2,263	
July	21	42	97	160	641	1,253	239	2,133	662	1,295	336	2,293	
August	24	49	140	213	653	1,545	322	2,133	677	1,594	462	2,733	
	30	56	91	177	622	1,343	175	2,320	652	1,432	266	2,755	
September	21	57		191			201	,	762	,	314	2,803	
October	22		113		741	1,670		2,612		1,727			
November		59	97	178	605	1,411	205	2,221	627	1,470	302	2,399	
December	22	72	102	196	569	1,437	201	2,207	591	1,509	303	2,403	
Total	257	620	1,288	2,165	7,101	15,217	2,737	25,055	7,358	15,837	4,025	27,220	
2001 January	19	74 76	101 94	194	669	1,480	231	2,380	688	1,554	332	2,574	
February	29			199	599	1,511	206	2,316	628	1,587	300	2,515	
March	24	51	90	165	665	1,563	188	2,416	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	18	82	119	219	619	1,925	198	2,742	637	2,007	317	2,961	
October	29	90	144	263	764	2,011	220	2,995	793	2,101	364	3,258	
November	24	88	131	243	545	1,651	175	2,371	569	1,739	306	2,614	
December	26	46	89	161	351	1,507	152	2,010	377	1,553	241	2,171	
Total	314	954	1,444	2,712	7,635	21,129	2,552	31,316	7,949	22,083	3,996	34,028	
2002 January	16	60	108	184	409	1,328	207	1,944	425	1,388	315	2,128	
February	16	56	103	175	418	1,247	198	1,863	434	1,303	301	2,038	
March	16	51	96	163	419	1,137	185	1,741	435	1,188	281	1,904	
April	15	51	94	160	R 395	1,130	182	R 1,707	R 410	1,181	276	R 1,867	
May	15	57	103	175	388	1,278	R 199	R 1,865	403	1,335	R 302	R 2,040	
June	15	58	106	179	R 401	1,301	R 202	1,904	R 416	1,359	R 308	2,083	
July	16	59	106	181	406	1,309	205	1,920	422	1,368	311	2,101	
7-Month Total	109	392	716	1,217	2,836	8,730	1,378	12,944	2,945	9,122	2,094	14,161	
2001 7-Month Total	190	544	829	1,563	4,686	11,979	1,559	18,224	4,876	12,523	2,388	19,787	
2000 7-Month Total	138	327	745	1,210	3,911	7,778	1,633	13,322	4,049	8,105	2,378	14,532	

R=Revised.

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 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.

Maximum U.S. Active Seismic Crew Counts Table 5.3

(Number of Crews)

	48 States, Onshore				48 States, Offshore ^a								
	Dimensions ^c			Dimensions ^c					imensions				
	2	3	4	Totald	2	3	4	Totald	2	3	4	Totald	Total
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

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

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.

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

Crude Oil and Natural Gas Resource Development 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 June 2002 totaled 83 million short tons, 11 percent lower than in June 2001.

Coal consumed by the electric power sector in May 2002 was estimated as 75 million short tons, 1 percent lower than the level in May 2001.

Electric power sector coal stocks were estimated as 144

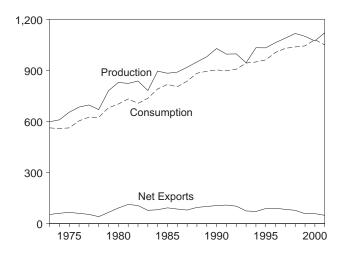
million short tons at the end of May 2002, 18 percent higher than the level a year earlier.

Coal exports in May 2002 totaled 3 million short tons, 33 percent lower than exports in May 2001. Coal imports in May 2002 totaled 1 million short tons, 14 percent lower than imports in May 2001.

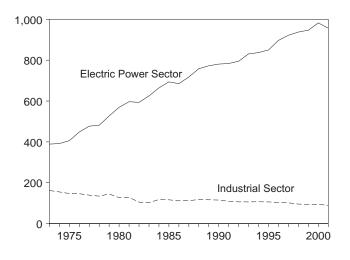
Figure 6.1 Coal

(Million Short Tons)

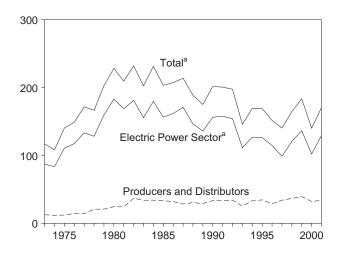
Overview, 1973-2001



Consumption by Sector, 1973-2001

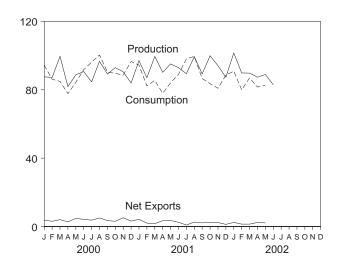


Stocks, End of Year, 1973-2001

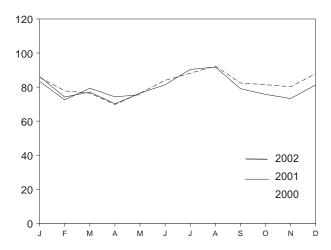


^aOther power producers stocks are included beginning in 1999. Note: Because vertical scales differ, graphs should not be compared.

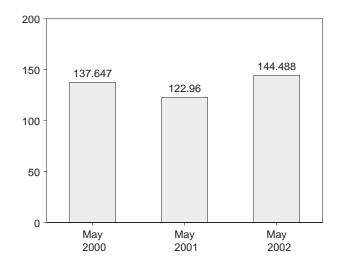
Overview, Monthly



Electric Power Sector Consumption, Monthly



Electric Power Sector Stocks, End of Month



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)

973 Total 974 Total 975 Total 975 Total 976 Total 977 Total 977 Total 977 Total 978 Total 9978 Total 9978 Total 9978 Total 998 Total 980 Total 981 Total 982 Total 983 Total 984 Total 985 Total 986 Total 997 Total 998 Total 999 Total 991 Total 991 Total 992 Total 993 Total 991 Total 993 Total 994 Total 995 Total 996 Total 997 Total 998 Total 999 Total	598,568 610,023 654,641 684,913 697,205 670,164 781,134 829,700 823,775 838,112 782,091 895,921 883,638 890,315 918,762 950,265 980,729 1,029,076 995,984 997,545 945,424 1,033,504 1,032,974 1,063,856 1,089,932 1,117,535 1,100,431	562,584 558,402 562,640 603,790 625,291 625,225 680,524 702,730 732,627 706,672 791,296 818,049 804,231 836,941 883,642 ^c 895,369 902,893 899,067 907,378 943,467 950,141 962,038 1,006,306 1,030,145 1,038,292	127 2,080 940 1,203 1,647 2,953 2,059 1,194 1,043 742 1,271 1,286 1,952 2,212 1,747 2,134 2,851 2,699 3,390 3,803 8,181 8,870 9,473 8,115	53,587 60,661 66,309 60,021 54,312 40,714 66,042 91,742 112,541 106,277 77,772 81,483 92,680 85,518 79,607 95,023 100,815 105,804 108,969 102,516 74,519 71,359 88,547 90,473	117,155 108,237 140,391 148,899 171,543 166,606 202,812 228,407 209,423 232,038 202,584 231,300 203,367 207,319 213,780 188,831 175,087 201,629 200,682 197,685 145,742 169,358
974 Total 975 Total 976 Total 9776 Total 9776 Total 9777 Total 978 Total 979 Total 980 Total 981 Total 982 Total 983 Total 984 Total 985 Total 986 Total 987 Total 987 Total 988 Total 999 Total 991 Total 991 Total 992 Total 993 Total 994 Total 995 Total 997 Total 998 Total 997 Total 998 Total 998 Total 997 Total 998 Total 999 Total	610,023 654,641 684,913 697,205 670,164 781,134 829,700 823,775 838,112 782,091 895,921 883,638 890,315 918,762 950,265 980,729 1,029,076 995,984 997,545 945,424 1,032,974 1,032,974 1,063,856 1,089,932 1,117,535 1,100,431	558,402 562,640 603,790 625,291 625,225 680,524 702,730 732,627 706,911 736,672 791,296 818,049 804,231 836,941 883,642 ^C 895,369 902,893 899,067 907,378 943,467 950,141 962,038 1,006,306 1,030,145 1,038,292	2,080 940 1,203 1,647 2,953 2,059 1,194 1,043 742 1,271 1,286 1,952 2,212 1,747 2,134 2,851 2,699 3,390 3,803 8,181 8,870 9,473 8,115	60,661 66,309 60,021 54,312 40,714 66,042 91,742 112,541 106,277 77,772 81,483 92,680 85,518 79,607 95,023 100,815 105,804 108,969 102,516 74,519 71,359 88,547	108,237 140,391 148,899 171,543 166,606 202,812 228,407 209,423 232,038 202,584 231,300 203,367 207,319 213,780 188,831 175,087 201,629 200,682 197,685 145,742 169,358 169,083
175 Total 176 Total 177 Total 177 Total 177 Total 178 Total 179 Total 179 Total 180 Total 181 Total 182 Total 182 Total 183 Total 184 Total 185 Total 185 Total 186 Total 187 Total 188 Total 189 Total 189 Total 199	654,641 684,913 697,205 670,164 781,134 829,700 823,775 838,112 782,091 895,921 883,638 890,315 918,762 950,265 980,729 1,029,076 995,984 997,545 945,424 1,033,504 1,033,504 1,033,504 1,033,504 1,033,504 1,033,504 1,033,504 1,033,504 1,033,504 1,033,504 1,033,504 1,033,504 1,033,504 1,033,504 1,033,504 1,033,504 1,033,504 1,033,504 1,0431	562,640 603,790 625,291 625,225 680,524 702,730 732,627 706,911 736,672 791,296 818,049 804,231 836,941 883,642 °895,369 902,893 899,067 907,378 943,467 950,141 962,038 1,006,306 1,030,145 1,038,292	940 1,203 1,647 2,953 2,059 1,194 1,043 742 1,271 1,286 1,952 2,212 1,747 2,134 2,851 2,699 3,390 3,803 8,181 8,870 9,473 8,115	66,309 60,021 54,312 40,714 66,042 91,742 112,541 106,277 77,772 81,483 92,680 85,518 79,607 95,023 100,815 105,804 108,969 102,516 74,519 71,359 88,547	140,391 148,899 171,543 166,606 202,812 228,407 209,423 232,038 202,584 231,300 203,367 207,319 213,780 188,831 175,087 201,629 200,682 197,685 145,742 169,358 169,083
76 Total 77 Total 77 Total 77 Total 78 Total 80 Total 80 Total 81 Total 82 Total 83 Total 84 Total 85 Total 86 Total 87 Total 89 Total 99 Total 91 Total 92 Total 93 Total 94 Total 99 Total 00 January February March April May June July August September October November December Total 01 January February February February November December Total	684,913 697,205 670,164 781,134 829,700 823,775 838,112 782,091 895,921 883,638 890,315 918,762 950,265 980,729 1,029,076 995,984 997,545 945,424 1,033,504 1,033,504 1,033,504 1,033,504 1,038,932 1,117,535 1,100,431	603,790 625,291 625,225 680,524 702,730 732,627 706,911 736,672 791,296 818,049 804,231 836,941 883,642 6895,369 902,893 899,067 907,378 943,467 950,141 962,038 1,006,306 1,030,145 1,038,292	1,203 1,647 2,953 2,059 1,194 1,043 742 1,271 1,286 1,952 2,212 1,747 2,134 2,851 2,699 3,390 3,803 8,181 8,870 9,473 8,115	60,021 54,312 40,714 66,042 91,742 112,541 106,277 77,772 81,483 92,680 85,518 79,607 95,023 100,815 105,804 108,969 102,516 74,519 71,359 88,547	148,899 171,543 166,606 202,812 228,407 209,423 232,038 202,584 231,300 203,367 207,319 213,780 188,831 175,087 201,629 200,682 197,685 145,742 169,358 169,083
77 Total 78 Total 78 Total 78 Total 79 Total 80 Total 81 Total 82 Total 83 Total 84 Total 85 Total 86 Total 87 Total 88 Total 89 Total 90 Total 91 Total 92 Total 93 Total 94 Total 95 Total 97 Total 99 Total	697,205 670,164 781,134 829,700 823,775 838,112 782,091 895,921 883,638 890,315 918,762 950,265 980,729 1,029,076 995,984 997,545 945,424 1,033,504 1,033,504 1,033,504 1,033,504 1,033,504 1,033,504 1,033,504 1,033,504	625,291 625,225 680,524 702,730 732,627 706,911 736,672 791,296 818,049 804,231 836,941 883,642 °895,369 902,893 899,067 907,378 943,467 950,141 962,038 1,006,306 1,030,145 1,038,292	1,647 2,953 2,059 1,194 1,043 742 1,271 1,286 1,952 2,212 1,747 2,134 2,851 2,699 3,390 3,803 8,181 8,870 9,473 8,115	54,312 40,714 66,042 91,742 112,541 106,277 77,772 81,483 92,680 85,518 79,607 95,023 100,815 105,804 108,969 102,516 74,519 71,359 88,547	171,543 166,606 202,812 228,407 209,423 232,038 202,584 231,300 203,367 207,319 213,780 188,831 175,087 201,629 200,682 197,685 145,742 169,358 169,083
78 Total 79 Total 80 Total 81 Total 82 Total 83 Total 84 Total 85 Total 86 Total 86 Total 87 Total 88 Total 89 Total 90 Total 91 Total 92 Total 93 Total 94 Total 95 Total 96 Total 97 Total 98 Total 99 Total 90 January February March April May June July August September October November December Total 01 January February March	670,164 781,134 829,700 823,775 838,112 782,091 895,921 883,638 890,315 918,762 950,265 980,729 1,029,076 995,984 997,545 945,424 1,033,504 1,032,974 1,063,856 1,089,932 1,117,535 1,100,431	625,225 680,524 702,730 732,627 706,911 736,672 791,296 818,049 804,231 836,941 883,642 °895,369 902,893 899,067 907,378 943,467 950,141 962,038 1,006,306 1,030,145 1,038,292	2,953 2,059 1,194 1,043 742 1,271 1,286 1,952 2,212 1,747 2,134 2,851 2,699 3,390 3,803 8,181 8,870 9,473 8,115	40,714 66,042 91,742 112,541 106,277 77,772 81,483 92,680 85,518 79,607 95,023 100,815 105,804 108,969 102,516 74,519 71,359 88,547	166,606 202,812 228,407 209,423 232,038 202,584 231,300 203,367 207,319 213,780 188,831 175,087 201,629 200,682 197,685 145,742 169,358 169,083
79 Total 80 Total 80 Total 81 Total 82 Total 83 Total 83 Total 84 Total 85 Total 86 Total 87 Total 88 Total 88 Total 89 Total 90 Total 91 Total 92 Total 93 Total 94 Total 95 Total 96 Total 97 Total 98 Total 99 Total 90 January February March April May June July August September October November December Total 01 January February March Total	781,134 829,700 823,775 838,112 782,091 895,921 883,638 890,315 918,762 950,265 980,729 1,029,076 995,984 997,545 945,424 1,033,504 1,033,504 1,033,504 1,033,504 1,038,932 1,117,535 1,100,431	625,225 680,524 702,730 732,627 706,911 736,672 791,296 818,049 804,231 836,941 883,642 °895,369 902,893 899,067 907,378 943,467 950,141 962,038 1,006,306 1,030,145 1,038,292	2,059 1,194 1,043 742 1,271 1,286 1,952 2,212 1,747 2,134 2,851 2,699 3,390 3,803 8,181 8,870 9,473 8,115	40,714 66,042 91,742 112,541 106,277 77,772 81,483 92,680 85,518 79,607 95,023 100,815 105,804 108,969 102,516 74,519 71,359 88,547	202,812 228,407 209,423 232,038 202,584 231,300 203,367 207,319 213,780 188,831 175,087 201,629 200,682 197,685 145,742 169,358 169,083
79 Total 80 Total 81 Total 82 Total 83 Total 83 Total 84 Total 85 Total 86 Total 86 Total 87 Total 88 Total 89 Total 90 Total 91 Total 92 Total 93 Total 94 Total 95 Total 96 Total 97 Total 98 Total 99 Total	781,134 829,700 823,775 838,112 782,091 895,921 883,638 890,315 918,762 950,265 980,729 1,029,076 995,984 997,545 945,424 1,033,504 1,033,504 1,033,504 1,033,504 1,038,932 1,117,535 1,100,431	680,524 702,730 732,627 706,911 736,672 791,296 818,049 804,231 836,941 883,642 °895,369 902,893 899,067 907,378 943,467 950,141 962,038 1,006,306 1,030,145 1,038,292	2,059 1,194 1,043 742 1,271 1,286 1,952 2,212 1,747 2,134 2,851 2,699 3,390 3,803 8,181 8,870 9,473 8,115	66,042 91,742 112,541 106,277 77,772 81,483 92,680 85,518 79,607 95,023 100,815 105,804 108,969 102,516 74,519 71,359 88,547	202,812 228,407 209,423 232,038 202,584 231,300 203,367 207,319 213,780 188,831 175,087 201,629 200,682 197,685 145,742 169,358 169,083
80 Total 81 Total 82 Total 83 Total 84 Total 85 Total 86 Total 87 Total 88 Total 88 Total 89 Total 99 Total 91 Total 92 Total 93 Total 94 Total 99 Total 99 Total 99 Total 96 Total 97 Total 98 Total 99 Total 00 January February March April May June July August September October November December Total 01 January February February February November December Total	829,700 823,775 838,112 782,091 895,921 883,638 890,315 918,762 950,265 980,729 1,029,076 995,984 997,545 945,424 1,033,504 1,033,504 1,033,504 1,038,932 1,117,535 1,100,431	702,730 732,627 706,911 736,672 791,296 818,049 804,231 836,941 883,642 ^{C8} 95,369 902,893 889,067 907,378 943,467 950,141 962,038 1,006,306 1,030,145 1,038,292	1,194 1,043 742 1,271 1,286 1,952 2,212 1,747 2,134 2,851 2,699 3,390 3,803 8,181 8,870 9,473 8,115	91,742 112,541 106,277 77,772 81,483 92,680 85,518 79,607 95,023 100,815 105,804 108,969 102,516 74,519 71,359 88,547	228,407 209,423 232,038 202,584 231,300 203,367 207,319 213,780 188,831 175,087 201,629 200,682 197,685 145,742 169,358 169,083
81 Total 82 Total 83 Total 84 Total 85 Total 86 Total 86 Total 88 Total 88 Total 89 Total 89 Total 90 Total 91 Total 92 Total 93 Total 94 Total 95 Total 96 Total 99 Total 97 Total 98 Total 99 Total 99 Total 99 Total 99 Total 99 Total 90 January February March April May June July August September October November December Total 01 January February February November December Total	823,775 838,112 782,091 895,921 883,638 890,315 918,762 950,265 980,729 1,029,076 995,984 997,545 945,424 1,033,504 1,033,506 1,089,932 1,117,535 1,100,431	732,627 706,911 736,672 791,296 818,049 804,231 836,941 883,642 °895,369 902,893 899,067 907,378 943,467 950,141 962,038 1,006,306 1,030,145 1,038,292	1,043 742 1,271 1,286 1,952 2,212 1,747 2,134 2,851 2,699 3,390 3,803 8,181 8,870 9,473 8,115	112,541 106,277 77,772 81,483 92,680 85,518 79,607 95,023 100,815 105,804 108,969 102,516 74,519 71,359 88,547	209,423 232,038 202,584 231,300 203,367 207,319 213,780 188,831 175,087 201,629 200,682 197,685 145,742 169,358 169,083
82 Total 83 Total 83 Total 84 Total 85 Total 86 Total 87 Total 88 Total 89 Total 99 Total 90 Total 91 Total 92 Total 93 Total 94 Total 95 Total 96 Total 97 Total 98 Total 99 Total 90 January February March April May June July August September October November December Total 90 January February November December Total	838,112 782,091 895,921 883,638 890,315 918,762 950,265 980,729 1,029,076 995,984 997,545 945,424 1,033,504 1,032,974 1,063,856 1,089,932 1,117,535 1,100,431	706,911 736,672 791,296 818,049 804,231 836,941 883,642 °895,369 902,893 899,067 907,378 943,467 950,141 962,038 1,006,306 1,030,145 1,038,292	742 1,271 1,286 1,952 2,212 1,747 2,134 2,851 2,699 3,390 3,803 8,181 8,870 9,473 8,115	106,277 77,772 81,483 92,680 85,518 79,607 95,023 100,815 105,804 108,969 102,516 74,519 71,359 88,547	232,038 202,584 231,300 203,367 207,319 213,780 188,831 175,087 201,629 200,682 197,685 145,742 169,358 169,083
83 Total 84 Total 84 Total 88 Total 88 Total 88 Total 88 Total 89 Total 99 Total 90 Total 91 Total 92 Total 93 Total 95 Total 96 Total 99 Total 00 January February March April May June July August September October November December Total 00 January February February February February February Foctober November December Total	782,091 895,921 883,638 890,315 918,762 950,265 980,729 1,029,076 995,984 997,545 945,424 1,033,504 1,033,504 1,033,504 1,038,56 1,089,932 1,117,535 1,100,431	736,672 791,296 818,049 804,231 836,941 883,642 °895,369 902,893 899,067 907,378 943,467 950,141 962,038 1,006,306 1,030,145 1,038,292	1,271 1,286 1,952 2,212 1,747 2,134 2,851 2,699 3,390 3,803 8,181 8,870 9,473 8,115	77,772 81,483 92,680 85,518 79,607 95,023 100,815 105,804 108,969 102,516 74,519 71,359 88,547	202,584 231,300 203,367 207,319 213,780 188,831 175,087 201,629 200,682 197,685 145,742 169,358 169,083
83 Total 84 Total 84 Total 85 Total 86 Total 87 Total 88 Total 89 Total 99 Total 90 Total 91 Total 92 Total 93 Total 94 Total 95 Total 96 Total 99 Total 97 Total 98 Total 99 Total 99 Total 99 Total 99 Total 99 Total 00 January February March April May June July August September October November December Total 01 January February February November December Total	782,091 895,921 883,638 890,315 918,762 950,265 980,729 1,029,076 995,984 997,545 945,424 1,033,504 1,033,504 1,033,504 1,038,56 1,089,932 1,117,535 1,100,431	736,672 791,296 818,049 804,231 836,941 883,642 °895,369 902,893 899,067 907,378 943,467 950,141 962,038 1,006,306 1,030,145 1,038,292	1,271 1,286 1,952 2,212 1,747 2,134 2,851 2,699 3,390 3,803 8,181 8,870 9,473 8,115	77,772 81,483 92,680 85,518 79,607 95,023 100,815 105,804 108,969 102,516 74,519 71,359 88,547	202,584 231,300 203,367 207,319 213,780 188,831 175,087 201,629 200,682 197,685 145,742 169,358 169,083
84 Total 85 Total 86 Total 87 Total 88 Total 88 Total 89 Total 99 Total 91 Total 92 Total 93 Total 95 Total 96 Total 97 Total 99 Total 00 January February March April May June July August September October November December Total 01 January February February November Total	895,921 883,638 890,315 918,762 950,265 980,729 1,029,076 995,984 997,545 945,424 1,033,504 1,033,504 1,033,504 1,038,932 1,117,535 1,100,431	791,296 818,049 804,231 836,941 883,642 6895,369 902,893 899,067 907,378 943,467 950,141 962,038 1,006,306 1,030,145 1,038,292	1,286 1,952 2,212 1,747 2,134 2,851 2,699 3,390 3,803 8,181 8,870 9,473 8,115	81,483 92,680 85,518 79,607 95,023 100,815 105,804 108,969 102,516 74,519 71,359 88,547	231,300 203,367 207,319 213,780 188,831 175,087 201,629 200,682 197,685 145,742 169,358 169,083
85 Total 86 Total 88 Total 88 Total 88 Total 89 Total 99 Total 99 Total 991 Total 993 Total 995 Total 996 Total 997 Total 997 Total 998 Total 999 Total 00 January February March April May June July August September October November December Total 01 January February February November December Total	883,638 890,315 918,762 950,265 980,729 1,029,076 995,984 997,545 945,424 1,033,504 1,033,504 1,063,856 1,089,932 1,117,535 1,100,431	818,049 804,231 836,941 883,642 ^c 895,369 902,893 899,067 907,378 943,467 950,141 962,038 1,006,306 1,030,145 1,038,292	1,952 2,212 1,747 2,134 2,851 2,699 3,390 3,803 8,181 8,870 9,473 8,115	92,680 85,518 79,607 95,023 100,815 105,804 108,969 102,516 74,519 71,359 88,547	203,367 207,319 213,780 188,831 175,087 201,629 200,682 197,685 145,742 169,358 169,083
86 Total 87 Total 88 Total 88 Total 89 Total 90 Total 90 Total 91 Total 92 Total 93 Total 94 Total 95 Total 96 Total 97 Total 98 Total 99 Total 99 Total 99 Total 99 Total 99 Total 99 Total 90 January February March April May June July August September October November December Total 01 January February February November December Total	890,315 918,762 950,265 980,729 1,029,076 995,984 997,545 945,424 1,033,504 1,032,974 1,063,856 1,089,932 1,117,535 1,100,431	804,231 836,941 883,642 °895,369 902,893 899,067 907,378 943,467 950,141 962,038 1,006,306 1,030,145 1,038,292	2,212 1,747 2,134 2,851 2,699 3,390 3,803 8,181 8,870 9,473 8,115	85,518 79,607 95,023 100,815 105,804 108,969 102,516 74,519 71,359 88,547	207,319 213,780 188,831 175,087 201,629 200,682 197,685 145,742 169,358 169,083
187 Total 188 Total 188 Total 189 Total 189 Total 189 Total 190 Total 191 Total 192 Total 193 Total 194 Total 195 Total 196 Total 197 Total 198 Total 199	918,762 950,265 980,729 1,029,076 995,984 997,545 945,424 1,033,504 1,032,974 1,063,856 1,089,932 1,117,535 1,100,431	836,941 883,642 °895,369 902,893 899,067 907,378 943,467 950,141 962,038 1,006,306 1,030,145 1,038,292	1,747 2,134 2,851 2,699 3,390 3,803 8,181 8,870 9,473 8,115	79,607 95,023 100,815 105,804 108,969 102,516 74,519 71,359 88,547	213,780 188,831 175,087 201,629 200,682 197,685 145,742 169,358 169,083
88 Total 89 Total 99 Total 91 Total 91 Total 92 Total 93 Total 93 Total 95 Total 96 Total 97 Total 98 Total 99 Total 99 Total 00 January February March April May June July August September October November December Total 01 January February February November Total	950,265 980,729 1,029,076 995,984 997,545 945,424 1,033,504 1,032,974 1,063,856 1,089,932 1,117,535 1,100,431	883,642 c895,369 902,893 899,067 907,378 943,467 950,141 962,038 1,006,306 1,030,145 1,038,292	2,134 2,851 2,699 3,390 3,803 8,181 8,870 9,473 8,115	95,023 100,815 105,804 108,969 102,516 74,519 71,359 88,547	188,831 175,087 201,629 200,682 197,685 145,742 169,358 169,083
188 Total 189 Total 1990 Total 1910 Total 1910 Total 192 Total 193 Total 194 Total 195 Total 195 Total 196 Total 197 Total 198 Total 199 Total 1	950,265 980,729 1,029,076 995,984 997,545 945,424 1,033,504 1,032,974 1,063,856 1,089,932 1,117,535 1,100,431	883,642 c895,369 902,893 899,067 907,378 943,467 950,141 962,038 1,006,306 1,030,145 1,038,292	2,134 2,851 2,699 3,390 3,803 8,181 8,870 9,473 8,115	95,023 100,815 105,804 108,969 102,516 74,519 71,359 88,547	188,831 175,087 201,629 200,682 197,685 145,742 169,358 169,083
89 Total 90 Total 90 Total 91 Total 92 Total 93 Total 94 Total 95 Total 96 Total 97 Total 98 Total 99 Total 99 Total 00 January February March April May June July August September October November December Total 01 January February February November Total	980,729 1,029,076 995,984 997,545 945,424 1,033,504 1,032,974 1,063,856 1,089,932 1,117,535 1,100,431	c895,369 902,893 899,067 907,378 943,467 950,141 962,038 1,006,306 1,030,145 1,038,292	2,851 2,699 3,390 3,803 8,181 8,870 9,473 8,115	100,815 105,804 108,969 102,516 74,519 71,359 88,547	175,087 201,629 200,682 197,685 145,742 169,358 169,083
90 Total 91 Total 92 Total 93 Total 93 Total 94 Total 95 Total 95 Total 96 Total 97 Total 98 Total 99 Total 00 January February March April May June July August September October November December Total 01 January February February And Agril October November February February February February February February February February March	1,029,076 995,984 997,545 945,424 1,033,504 1,032,974 1,063,856 1,089,932 1,117,535 1,100,431	902,893 899,067 907,378 943,467 950,141 962,038 1,006,306 1,030,145 1,038,292	2,699 3,390 3,803 8,181 8,870 9,473 8,115	105,804 108,969 102,516 74,519 71,359 88,547	201,629 200,682 197,685 145,742 169,358 169,083
91 Total 92 Total 92 Total 93 Total 94 Total 95 Total 96 Total 97 Total 98 Total 99 Total 99 Total 00 January February March April May June July August September October November December Total 01 January February November Total 01 January February February February March April May June July August September October November February February March	995,984 997,545 945,424 1,033,504 1,032,974 1,063,856 1,089,932 1,117,535 1,100,431	899,067 907,378 943,467 950,141 962,038 1,006,306 1,030,145 1,038,292	3,390 3,803 8,181 8,870 9,473 8,115	108,969 102,516 74,519 71,359 88,547	200,682 197,685 145,742 169,358 169,083
92 Total 93 Total 93 Total 93 Total 94 Total 95 Total 96 Total 97 Total 98 Total 99 Total 00 January February March April May June July August September October November December Total 01 January February February March	997,545 945,424 1,033,504 1,032,974 1,063,856 1,089,932 1,117,535 1,100,431	907,378 943,467 950,141 962,038 1,006,306 1,030,145 1,038,292	3,803 8,181 8,870 9,473 8,115	102,516 74,519 71,359 88,547	197,685 145,742 169,358 169,083
92 Total 93 Total 93 Total 94 Total 95 Total 96 Total 97 Total 98 Total 99 Total 00 January February March April May June July August September October November December Total 01 January February February March	997,545 945,424 1,033,504 1,032,974 1,063,856 1,089,932 1,117,535 1,100,431	907,378 943,467 950,141 962,038 1,006,306 1,030,145 1,038,292	3,803 8,181 8,870 9,473 8,115	102,516 74,519 71,359 88,547	197,685 145,742 169,358 169,083
93 Total 94 Total 95 Total 995 Total 96 Total 97 Total 98 Total 99 Total 00 January February March April May June July August September October November December Total 01 January February February	945,424 1,033,504 1,032,974 1,063,856 1,089,932 1,117,535 1,100,431	943,467 950,141 962,038 1,006,306 1,030,145 1,038,292	8,181 8,870 9,473 8,115	74,519 71,359 88,547	145,742 169,358 169,083
994 Total 1995 Total 1996 Total 1997 Total 1998 Total 1999 Total 1	1,033,504 1,032,974 1,063,856 1,089,932 1,117,535 1,100,431	950,141 962,038 1,006,306 1,030,145 1,038,292	8,870 9,473 8,115	71,359 88,547	169,358 169,083
995 Total 996 Total 997 Total 998 Total 998 Total 999 Total 999 Total 900 January February March April May June July August September October November December Total 901 January February March 901 January February March	1,032,974 1,063,856 1,089,932 1,117,535 1,100,431	962,038 1,006,306 1,030,145 1,038,292	9,473 8,115	88,547	169,083
996 Total 997 Total 998 Total 999 Total 999 Total 900 January February March April May June July August September October November December Total 901 January February March Mo1 January February March	1,063,856 1,089,932 1,117,535 1,100,431	1,006,306 1,030,145 1,038,292	8,115		
996 Total 997 Total 998 Total 999 Total 999 Total 990 January February March April May June July August September October November December Total 901 January February March	1,089,932 1,117,535 1,100,431	1,030,145 1,038,292		90.473	
197 Total 198 Total 199 Total 199 Total 199 Total 199 Total 199 Total 199 Total 190	1,089,932 1,117,535 1,100,431	1,030,145 1,038,292			151,627
998 Total 999 Total 999 Total 900 January February March April May June July August September October November December Total 901 January February March	1,117,535 1,100,431	1,038,292	7,487	83,545	140,374
100 January	1,100,431				
February February March April May June July August September October November December Total January February March	, ,	7 1144 576	8,724	78,048	^d 164,602
February March April May June July August September October November December Total 01 January February March	87,579	1,044,536	9,089	58,476	183,524
March		94,385	1,002	4,710	175,019
March	87,219	86,154	698	3,765	182,614
April May June July August September October December Total	99,540	84,902	1,115	5,123	185,425
May June June August September October November December Total September September Total September September Total September September Total September Septe					
June	81,839	77,745	823	3,503	185,976
July	88,775	84,368	770	5,536	185,666
July	90,644	91,748	1,152	5,339	179,425
August September October November December Total January February March	84,694	96,157	1,212	4,948	164,159
September October November December Total Pebruary March	96,659	100,361	1,404	6,405	158,840
October November December Total Oo1 January February March					
November December Total 001 January February March	89,224	90,342	946	4,447	157,616
December Total 901 January February March	92,959	89,602	1,442	4,492	157,657
December Total 101 January February March	90,519	88,629	854	5,958	155,440
Total	83,961	96,500	1,095	4,264	140,020
101 January February March	,	,			,
February March	1,073,612	1,080,894	12,513	58,489	140,020
March	97,023	94,453	1,303	5,512	137,217
March	87,077	82,345	1,252	3,236	141,616
	99,499	85,496	1,355	3,094	151,721
	90,237	77,970	1,253	•	
April				4,623	161,655
May	95,139	84,082	1,435	4,966	168,699
June	92,954	88,955	1,436	3,911	165,323
July	89,365	98,083	2,289	3,166	161,154
August	99,406	99,495	1,772	4,364	152,778
	,	,	,	•	
September	89,303	86,580	1,986	4,125	154,041
October	99,904	83,592	1,649	4,002	160,269
November	94,085	80,881	2,057	4,413	167,856
December	87,334	88,539	2,001	3,256	170,697
Total	1,121,328	1,050,470	19,787	48,666	170,697
02 January	101 526	R 90,909	1 /20	2 072	R 181,042
02 January	101,536		1,439	3,873	101,U4Z
February	89,849	^R 79,931	1,222	2,630	R 180,336
March	89,740	^R 86,874	1,339	2,749	^R 186,615
April	87,365	R 81,600	1,208	3,584	R 187,513
May	88,961	82,570	1,227	3,330	193,784
June 6-Month Total	82,923 540.375	NA NA	NA NA	NA NA	NA NA
o-wonth lotal		NA	NA	NA	NA
01 6-Month Total 00 6-Month Total	540,375		8,034 5,560	25,341 27,976	165,323 179,425

^a Includes Puerto Rico.

R=Revised. NA=Not available.

Notes: Data through 1999 are final. Subsequent data are preliminary. For methodology used to calculate production, consumption, and stocks, see Notes 1, 2, and 3 at end of section. Totals may not equal sum of Geographic coverage is the 50 components due to independent rounding. States and the District of Columbia.

Web Page: http://www.eia.doe.gov/emeu/mer/coal.html. Sources: See end of section for sources.

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

^c Beginning in 1989, includes coal consumed by "Other Power Producers."

See Table 6.2.

d Beginning in 1998, includes coal stocks at "Other Power Producers." See

Table 6.3.

Table 6.2 Coal Consumption by Sector

(Thousand Short Tons)

	End-Use Sectors ^a								
	Residential		Industrial	I			Other		
	and Commercial	Coke Plants	Other	Total	Transportation	Electric Utilities	Power Producers ^{a,b}	Total	Total
1973 Total	11,117	94,101	68,038	162,139	116	389,212	NA	^c 389,212	562,584
1974 Total		90,191	64,903	155,094	80	391,811	NA	°391,811	558,402
1975 Total		83,598	63,646	147,244	24	405,962	NA	c405,962	562,640
1976 Total		84,704	61,787	146,491	12	448,371	NA	c448,371	603,790
1977 Total		77,739	61,463	139,202	9	477,126	NA	^c 477,126	625,291
1978 Total		71,394	63,085	134,479	(^d)	481,235	NA	^c 481,235	625,225
1979 Total		77,368	67,717	145,085	(d)	527,051	NA	°527,051	680,524
1980 Total		66,657	60,347	127,004	(d)	569,274	NA	^c 569,274	702,730
1981 Total		61,014	67,395	128,409	(ˈd)	596,797	NA	^c 596,797	732,627
1982 Total		40,908	64,097	105,005	(d)	593,666	NA	^c 593,666	706,911
1983 Total		37,033	65,980	103,013	(d)	625,211	NA	^c 625,211	736,672
1984 Total		44,022	73,745	117,767	(d)	664,399	NA	^c 664,399	791,296
1985 Total		41,056	75,372	116,429	(d)	693,841	NA	^c 693,841	818,049
1986 Total		35,924	75,583	111,508	(d)	685,056	NA	^c 685,056	804,231
1987 Total		36,957	75,175	112,132	(d)	717,894	NA	^c 717,894	836,941
1988 Total		41,888 40.508	76,252 76,134	118,140	(d)	758,372 766,888	NA 5,670	^C 758,372	883,642 ^e 895,369
1989 Total		40,508 38,877	76,134 76,330	116,643 115,207	(d)	700,888	5,670 7,413	^e 772,558 780,962	902,893
1990 Total 1991 Total		38,87 <i>1</i> 33,854	76,330 75,405	109,259	(d)	773,549	11,446	780,962 783,714	902,893 899,067
1992 Total		32,366	74,042	106,408	(d)	779,860	14,957	794,817	907,378
1993 Total		31,323	74,892	106,215	(d)	813,508	17,523	831,031	943,467
1994 Total		31,740	75,179	106,919	} d {	817,270	19,940	837,210	950,141
1995 Total		33,011	73,055	106,067	\d \	829,007	21,158	850,165	962.038
1996 Total	6,006	31,706	71,689	103,395	} d {	874,681	22,224	896,905	1,006,306
1997 Total		30,203	71,515	101,718	}d;	900,361	21,603	921,964	1,030,145
1998 Total		28,189	67,439	95,628	(d)	910,867	26,941	937,808	1,038,292
1999 Total		28,108	64,738	92,846	(d)	894,120	52,691	946,811	1,044,536
2000 January	533	2,473	5,601	8,074	(d)	77,090	E 8,689	E 85,779	94,385
February		2,343	5,626	7,969	} d	69,442	E 8,346	E 77,788	86,154
March		2,506	5,642	8,148	ζd γ́	67,925	E 8,521	E 76,446	84,902
April	351	2,499	5,137	7,637	(dí)	61,214	E 8,543	E 69,757	77,745
May		2,548	5,140	7,687	(d)	67,428	E 9,017	E 76,445	84,368
June	238	2,399	5,151	7,549	(d)	73,910	E 10,050	E 83,960	91,748
July		2,484	5,256	7,739	(d)	77,051	E 11,079	E 88,130	96,157
August	294	2,428	5,269	7,698	(d)	80,021	E 12,348	E 92,369	100,361
September		2,383	5,288	7,671	(d)	70,725	^E 11,703	E 82,428	90,342
October		2,251	5,751	8,002	(d)	69,835	E 11,572	E 81,407	89,602
November		2,270	5,721	7,991	(d)	69,114	E 11,123	E 80,237	88,629
December		2,356	5,626	7,982	(d)	75,579	E 12,294	E 87,873	96,500
Total	4,127	28,939	65,208	94,147	(°)	859,335	123,285	982,620	1,080,894
2001 January		2,176	5,634	7,811	(d)	73,236	E 12,917	E 86,153	94,453
February		2,145	5,646	7,791	(d)	62,523	E 11,640	E 74,163	82,345
March		2,466	5,568	8,033	(d)	64,993	E 12,112	E 77,105	85,496
April		2,320	5,103	7,423	(d)	58,889	E 11,305	E 70,194	77,970
May		2,337	5,102	7,439	(d)	65,233	E 11,187	E 76,420	84,082
June		2,268	5,059 5,211	7,327	(d)	69,126	E 12,252	E 81,378 E 90,360	88,955
July		2,206	5,211 5,166	7,417 7,415	(d)	76,487	E 13,873 E 13,930	E 91,769	98,083
August		2,249 2,145	5,166 5.147	7,415 7,292	(d)	77,839 66,126	E 12,953	E 79,079	99,495 86,580
September October		2,145	5,147 5,411	7,292 7,614	(d)	62.963	E 12,953	E 75,709	83,592
November	361	2,203 1,846	5,411	7,614	(d)	61,160	E 12,137	E 73,297	80,881
December	609	1,715	4,935	6,650	(d)	67,695	E 13,585	E 81,280	88,539
Total		26,075	63,361	89,437	(d)	806,269	E 150,637	E 956,906	1,050,470
2002 January	R 458	R 1,837	^R 5,268	^R 7,105	(d)	66,776	E 16,571	F 83,347	R 90,909
February		R 1,741	^R 5,274	R 7,014	(d) (d)	R 57,553	E 14,965	RF 72,518	R 79,931
March		R 1,893	R 5,290	R 7,183	(dí)	R 63,696	E 15,617	RF 79,313	R 86,874
April		R 1,936	RF 5,027	RF 6,964	(d)	R 59,998	E 14,295	RE 74,293	R 81,600
May	F 190	F 2,062	F 4,829	F 6,891	(d)	60,709	E 14,780	E 75,489	R 82,570
5-Month Total		€ 9,469	E 25,688	E 35,157	(d)	308,732	E 76,228	E 384,960	421,884
2001 5-Month Total	1,814	11,443	27,054	38,497	(d)	324,874	^E 59,161	E 384,035	424,346
2000 5-Month Total		12,369	27,146	39,515	<i>i</i> d i	343,099	E 43,116	E 386,215	427,555

a Most of the coal consumption at nonutility cogeneration plants is included in

the end-use sectors.

b Nonutility wholesale producers of electricity, and nonutility cogeneration plants that are not included in the end-use sectors.

^c Electric utilities only.

^d After 1977, small amounts of coal consumed by the transportation sector are included in "Other" under the industrial sector.

Beginning in 1989, includes coal consumed by "Other Power Producers."

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

Notes: For sector-specific reporting and estimating information, see Note 2 at end of section.

Data through 1999 are final. Subsequent data are preliminary. Totals may not equal sum of components due to independent rounding. Geographic coverage is the 50 States and the District of Columbia.

Web Page: http://www.eia.doe.gov/emeu/mer/coal.html.
Sources: See end of section for sources. Forecast values are derived from EIA's Short-Term Integrated Forecasting System. See Note 4 at end of section.

Table 6.3 Coal Stocks

(Thousand Short Tons)

						Consumers				
			Industrial			Electric Power Sector				
	Producers and Distributors	Residential and Commercial	Coke Plants	Other	Total	Electric Utilities	Other Power Producers ^a	Total ^b	Total	Total
1973 Year		290	6,998	10,370	17,368	86,967	NA	86,967	104,625	117,155
974 Year		280	6,209	6,605	12,814	83,509	NA	83,509	96,603	108,237
975 Year		233	8,797	8,529	17,326	110,724	NA	110,724	128,283	140,391
976 Year		240	9,902	7,100	17,002	117,436	NA	117,436	134,678	148,899
977 Year		220	12,816	11,063	23,879	133,219	NA	133,219	157,318	171,543
978 Year		360 340	8,278 10,155	9,048	17,326 21,932	128,225 159,714	NA NA	128,225 159,714	145,911 181,986	166,606 202,812
979 Year 980 Year		(°)	9.067	11,777 11.951	21,932	183,714	NA NA	183,714	204.028	202,812
981 Year		(°)	6,475	9,906	16,381	168,893	NA NA	168,893	185,274	209,423
982 Year		\c\	4,642	9,479	14,121	181,132	NA NA	181,132	195,254	232,038
983 Year		\c\	4,346	8,710	13,056	155,598	NA NA	155,598	168,654	202,584
984 Year		}°5	6,166	11,317	17,483	179,727	NA	179,727	197,211	231,300
985 Year		(°)	3,420	10,438	13,857	156,376	NA	156,376	170,234	203,367
986 Year		(°)	2,992	10,429	13,420	161,806	NA	161,806	175,226	207,319
987 Year		(°)	3,884	10,777	14,662	170,797	NA	170,797	185,459	213,780
988 Year		(°)	3,137	8,768	11,906	146,507	NA	146,507	158,413	188,831
989 Year		(°)	2,864	7,363	10,227	135,860	NA	135,860	146,087	175,087
990 Year		(°)	3,329	8,716	12,044	156,166	NA	156,166	168,210	201,629
991 Year		(°)	2,773	7,061	9,835	157,876	NA	157,876	167,711	200,682
992 Year		(°)	2,597	6,965	9,562	154,130	NA	154,130	163,692	197,685
993 Year	25,284	(°)	2,401 2,657	6,716	9,117	111,341	NA NA	111,341	120,458	145,742
994 Year		(°)	2,637	6,585 5,702	9,243 8.334	126,897 126,304	NA NA	126,897 126,304	136,139 134.639	169,358 169,083
995 Year 996 Year		(°)	2,632	5,702	8,355	114.623	NA NA	114,623	122,979	151.627
997 Year		(°)	1,978	5,597	7,576	98,826	NA NA	98,826	106,401	140,374
998 Year		}c{	2,026	5,545	7,571	120,501	NA NA	120.501	128,072	164,602
999 Year		(°)	1,943	5,569	7,512	129,041	^E 7,496	E 136,537	144,049	183,524
000 January		(°)	1,940	5,168	7,108	123,661	E 6,084	E 129,745	136,853	175,019
February		(°)	1,938	4,767	6,705	129,055	E 7,146	E 136,201	142,906	182,614
March		(°)	1,935	4,367	6,302	127,130	E 7,722	E 134,852	141,154	185,425
April		(°)	1,903	4,429	6,333	128,669	E 9,521	E 138,190	144,523	185,976
May		(°)	1,871 1,839	4,492 4,555	6,363 6,394	127,090	E 10,557 E 11,218	E 137,647 E 130,852	144,010 137,246	185,666 179,425
June		(°)	1,039	4,555	6.341	119,634 111.494	E 10,592	E 122,086	128.427	164.159
July August		(0)	1,745	4,636	6,288	106,201	E 10,592	E 116,946	123,234	158,840
September		\c\	1,558	4,677	6,235	102,876	E 11,199	E 114.075	120,309	157,616
October		(c)	1,537	4,647	6,183	104,422	E 11,861	E 116,283	122,466	157,657
November		(°)	1,515	4.617	6,132	102,227	E 12.177	E 114.404	120,537	155,440
December		(°)	1,494	4,587	6,081	90,115	E 11,919	E 102,034	108,115	140,020
001 January		(°)	1,630	4,462	6,092	84,825	E 10,811	E 95,636	101,728	137,217
February		(°)	1,766	4,338	6,104	86,462	E 11,462	E 97,924	104,027	141,616
March		(°)	1,902	4,213	6,115	94,644	E 11,765	E 106,409	112,525	151,721
April		(°)	1,813	4,330	6,143	102,626	E 12,621	E 115,247	121,390	161,655
May		(°)	1,724	4,447	6,171	109,595	E 13,365	E 122,960	129,131	168,699
June		(°)	1,635 1,616	4,564 4,705	6,199 6,321	107,452 102,664	E 13,419 E 12,684	E 120,871 E 115,348	127,070 121,669	165,323 161,154
July	39,485 38,498	(0)	1,597	4,705 4,846	6,443	96,440	E 11,398	E 107,838	121,009	152,778
August September	38,498 37,043	(°)	1,597	4,846	6,443	96,440 98.915	E 11,398	E 1107,838	114,280	154,041
October		(c)	1,555	5,277	6,832	107,745	E 12,161	E 119,906	126,738	160,269
November		} c {	1,532	5,567	7,100	115,250	E 12,550	E 127,800	134,900	167,856
December		(°)	1,510	5,857	7,368	117,150	E 12,267	E 129,417	136,785	170,697
002 January	43,945	(°)	R 1,503	R 5,456	R 6,958	116,032	E 14,106	_E 130,138	R 137,097	R 181,042
February	41,589	(°)	R 1,495	R 5,054	R 6,549	R 117,506	E 14,692	RE 132,198	R 138,747	R 180,336
March		(°)	R 1,488	R 4 652	R 6,140	R 120,835	E 15,156	RE 135,991	R 142,130	R 186,615
April		(°)	RF 1,427	RF 3,904	RF 5,332	R 121,039	E 16,182	RE 137,221	R 142,552	R 187,513
May	43,946	(°)	^F 1,436	F3,915	F 5,350	127,475	E 17,013	E 144,488	149,838	193,784

a Nonutility wholesale producers of electricity, and nonutility cogeneration plants that are not included in the industrial or commercial sectors.
 b Beginning in 1999, includes coal stocks at "Other Power Producers."
 c Beginning in 1980, the Energy Information Administration ceased collecting data as residential and commercial coal stocks.

For sector-specific reporting and

Web Page: http://www.eia.doe.gov/emeu/mer/coal.html.
Sources: See end of section for sources. Forecast values are derived from EIA's Short-Term Integrated Forecasting System. See Note 4 at end of section.

data on residential and commercial coal stocks.
R=Revised. E=Estimate. F=Forecast.
Notes: Stocks are at end of period.

estimating information, see Note 3 at end of section. Data through 1999 are final. Subsequent data are preliminary. Totals may not equal sum of components due to independent rounding. Geographic coverage is the 50 States and the District of Columbia.

Coal Notes

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

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

2. Consumption: Coal consumption data are reported by major end-use sector. 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 one-third of the quarterly values shown in the then current issue of the publication, regularly released in February, May, October, and November. The estimates are revised quarterly as collected data become available from the data sources. Sector-specific information follows.

Residential and Commercial—Prior to 1980, monthly consumption estimates for the residential and commercial sector were derived by using reported data to

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

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

3. Stocks: Coal stocks data are reported by major end-use sector. 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 one-third of the quarterly values shown in the then current issue of the publication, regularly released in February, May, October, and November. The estimates are revised quarterly as collected data become available from the data sources. Sector-specific information follows.

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 Utilities—Monthly stocks data at electric utility 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.

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 semi-annually (April and October) in EIA's *Short-Term Energy Outlook*, which is available from the National Energy Information Center (202-586-8800). Monthly updates are 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.

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

Sources for Table 6.1

Production

1973-September 1977—U.S. Department of the Interior, Bureau of Mines, *Minerals Yearbook* and *Minerals Industry Surveys*.

October 1977 forward—Energy Information Administration, Weekly Coal Production.

Consumption—See Table 6.2.

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

Stocks—See Table 6.3.

Sources for Table 6.2

Residential and Commercial

1973-1976—U.S. Department of the Interior (DOI), Bureau of Mines (BOM), *Minerals Yearbook*. January-September 1977—DOI, BOM, Form 6-1400, "Monthly Coal Report, Retail Dealers-Upper Lake Docks."

October 1977-1979—Energy Information Administration (EIA), Form EIA-2, "Monthly Coal Report, Retail Dealers-Upper Lake Docks."

1980-1997—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 Utilities

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

October 1977-2000—EIA, Form EIA-759 (formerly Form FPC-4), "Monthly Power Plant Report." 2001—EIA, Form EIA-906, "Power Plant Report."

Other Power Producers

Annual Data—EIA, Form EIA-860B (formerly Form EIA-867), "Annual Electric Generator Report - Nonutility."

Monthly Estimates—Through 1997, derived from the daily rate of each annual total. For 1998 forward, estimated by EIA from industry analysis.

Sources for Table 6.3

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

Electric Utilities

See Table 7.9.

Other Power Producers

Annual Data—EIA, Form EIA-860B (formerly Form EIA-867), "Annual Electric Generator Report - Nonutility."

Monthly Estimates—Estimated by EIA from industry analysis.

Section 7. Electricity

Overview. Electricity is produced by electric utilities, which are the traditional, regulated part of the industry, and nonutility power producers, which are expanding rapidly as the industry moves away from regulated entities.

In 2001, U.S. electricity net generation totaled 3.8 trillion kilowatthours. Electric utilities generated 2.6 trillion kilowatthours (70 percent of the total) and nonutility power producers generated 1.1 trillion kilowatthours (30 percent). The Nation imported 38 billion kilowatthours of electricity and exported 18 billion kilowatthours.

Net Generation. The May 2002 forecast for total net generation of electricity was 295 billion kilowatthours, 3 percent lower than in May 2001. At utilities, net generation was forecast at 200 billion kilowatthours, 8 percent lower than in May 2001, while at nonutility power plants, net generation was forecast at 95 billion kilowatthours, up 9 percent, compared with 1 year earlier.

At utilities in May 2002, fossil fuels (primarily coal) were forecast to account for 68 percent of net generation, nuclear 21 percent, and renewable resources 11 percent. At nonutility power plants, fossil fuels were forecast to account for 66 percent of net generation, nuclear accounted for 22 percent, and renewable resources 12 percent of the total.

Electric Utility Retail Sales. The May 2002 forecast for total utility sales of electricity to end users was 256 billion kilowatthours, 3 percent lower than in May 2001. May 2002 electricity sales to residential consumers were forecast at 79 billion kilowatthours (31)

percent of the month's total), commercial users 88 billion kilowatthours (34 percent), industrial consumers 79 billion kilowatthours of electricity (31 percent), and other users 10 billion kilowatthours (4 percent).

Consumption of Fossil Fuels. The May 2002 forecast for the consumption of coal to generate electricity was 73 million short tons, 6 percent less than a year earlier. Of the total, 61 million short tons, 7 percent less than a year earlier, was forecast to be consumed by electric utilities and 13 million short tons, 2 percent less than a year earlier, was forecast to be consumed by nonutility power producers.

The May 2002 forecast for the consumption of natural gas to generate electricity was 588 billion cubic feet, 2 percent more than a year earlier. Of the total, 211 billion cubic feet, 11 percent less than a year earlier, was forecast to be consumed by electric utilities and 377 billion cubic feet, 10 percent more than a year earlier, was forecast to be consumed by nonutility power producers.

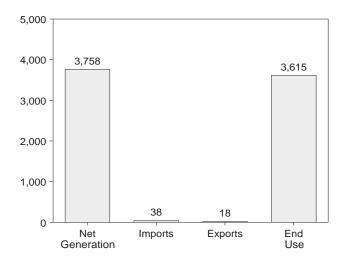
Stocks of Coal and Petroleum. The end-of-May 2002 forecast for coal held in storage for electricity generation was 162 million short tons, 18 percent more than a year earlier. Of the total, 127 million short tons, 16 percent more than a year earlier, was forecast to be held by electric utilities and 34 million short tons, 26 percent more than the level a year earlier, was forecast to be held by nonutility power producers.

The end-of-May 2002 forecast for petroleum liquids (i.e., heavy and light oil) was 48 million barrels held by electric utilities and nonutility power producers combined, 12 percent less than a year earlier.

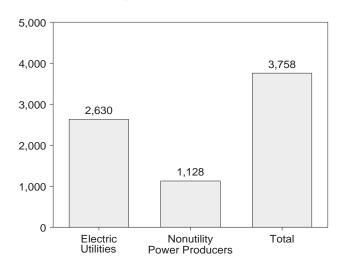
Figure 7.1 Electricity Overview

(Billion Kilowatthours)

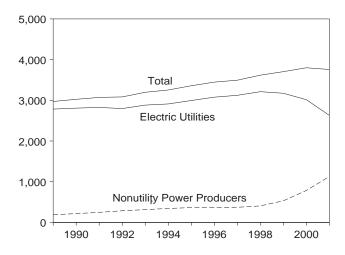
Overview, 2001



Net Generation, 2001

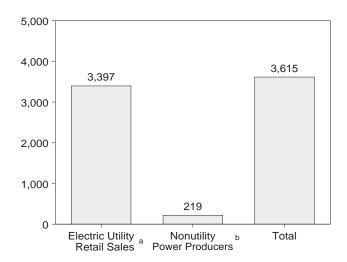


Net Generation, 1989-2001

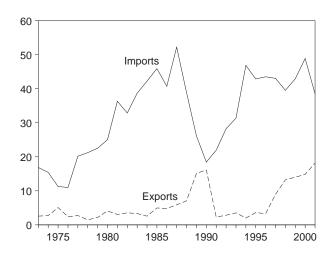


^aIncludes nonutility sales of electricity to utilities for distribution to end users, and sales to ultimate consumers by power marketers.
^bNonutility facility use of onsite net generation, and nonutility sales of electricity to end users.

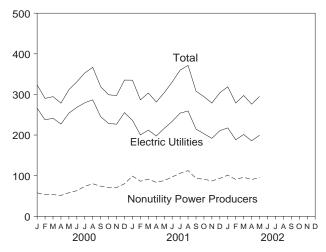
End Use, 2001



Trade, 1973-2001



Net Generation, Monthly



Note: Because vertical scales differ, graphs should not be compared. Web Page: http://www.eia.doe.gov/emeu/mer/elect.html. Source: Table 7.1.

Table 7.1 **Electricity Overview**

	N	Net Generation						End Use	
	Electric Utilities	Nonutility Power Producers	Total	Imports ^a	Exports ^a	Losses and Unaccounted for ^b	Electric Utility Retail Sales ^c	Nonutility Power Producers ^d	Total ^c
1973 Total	1,861	NA	1,861	17	3	NA	1,713	NA	NA
1974 Total	1,867	NA	1,867	15	3	NA NA	1,706	NA NA	NA NA
1975 Total	1,918	NA	1,918	11	5	NA	1,747	NA	NA
1976 Total	2,038	NA NA	2,038	11 20	2 3	NA NA	1,855	NA NA	NA NA
1977 Total 1978 Total	2,124 2,206	NA NA	2,124 2,206	21	ა 1	NA NA	1,948 2,018	NA NA	NA NA
1979 Total	2,247	NA	2,247	23	2	NA	2,071	NA	NA
1980 Total	2,286	NA	2,286	25	4	NA	2,094	NA	NA
1981 Total	2,295	NA	2,295	36 33	3 4	NA NA	2,147	NA NA	NA
1982 Total 1983 Total	2,241 2,310	NA NA	2,241 2,310	33 39	3	NA NA	2,086 2,151	NA NA	NA NA
1984 Total	2,416	NA	2,416	42	3	NA	2,286	NA	NA
1985 Total	2,470	NA	2,470	46	5	NA	2,324	NA	NA
1986 Total	2,487	NA	2,487	41	5	NA	2,369	NA	NA
1987 Total 1988 Total	2,572 2,704	NA NA	2,572 2,704	52 39	6 7	NA NA	2,457 2,578	NA NA	NA NA
1989 Total	2,784	e188	2,972	26	15	236	2,647	100	2,747
1990 Total	2,808	^e 217	3,025	18	16	210	2,713	104	2,817
1991 Total	2,825	^e 246	3,071	22	2	218	2,762	111	2,873
1992 Total 1993 Total	2,797 2,883	286 314	3,083 3,197	28 31	3 4	224 236	2,763 2,861	122 127	2,885 2.988
1994 Total	2,911	343	3,254	47	2	223	2,935	141	3,075
1995 Total	2,995	363	3,358	43	4	235	3,013	149	3,162
1996 Total	3,077	370	3,447	43	3	237	3,101	149	3,250
1997 Total 1998 Total	3,123 3,212	372 406	3,494 3,618	43 40	9 13	234 220	3,146 3,264	149 160	3,295 3,424
1999 Total	3,174	531	3,705	43	14	233	3,312	189	3,501
2000 January	266	58	324	4	1	NA	288	NA	NA
February	237	53	290	4	i	NA	272	NA	NA NA
March	241	53	295	4	1	NA	262	NA	NA
April	227	51	278	4	1	NA	249	NA	NA
May	254 268	58 63	312 331	4 5	1 2	NA NA	269 300	NA NA	NA NA
June July	279	74	353	5	1	NA NA	318	NA NA	NA NA
August	287	80	367	5	1	NA	331	NA	NA
September	245	74	319	4	1	NA	304	NA	NA
October	228	71	299 297	3 4	1 1	NA NA	273 264	NA NA	NA
November December	227 255	71 80	335	3	3	NA NA	204 292	NA NA	NA NA
Total	3,015	785	3,800	49	15	214	3,421	199	E 3,620
2001 January	236	99	335	3	2	NA	311	NA	NA
February	200	86	287	3	3	NA	273	NA	NA
March	212	91	304	4	2	NA	270	NA	NA
April May	198 216	84 88	281 304	4 4	2 2	NA NA	255 264	NA NA	NA NA
June	234	97	331	4	1	NA NA	290	NA NA	NA NA
July	254	106	360	4	1	NA	316	NA	NA
August	259	112	371	4	1	NA	332	NA	NA
September October	215 203	93 91	308 294	2 2	1 1	NA NA	296 268	NA NA	NA NA
November	192	87	279	2	1	NA NA	254	NA NA	NA NA
December	211	93	304	3	1	NA	268	NA	NA
Total	2,630	1,128	3,758	38	18	NA	3,397	219	^E 3,615
2002 January	218	101	319	3	1	NA	291	NA	NA
February	R 188	R 91	R 279	3	1	NA	R 263	NA	NA
March April	^{RF} 201 ^{RF} 186	RF 96 RF 90	RF 297 RF 276	3 3	2 2	NA NA	RF 264 RF 261	NA NA	NA NA
May	F 200	F 95	F 295	2	2	NA NA	RF 256	NA NA	NA NA
5-Month Total	E 992	E 474	E 1,466	15	7	NA	E 1,335	NA	NA
2001 5-Month Total	1,063	448	1,511	18	10	NA	1,373	NA	NA
2000 5-Month Total	1,226	273	1,499	19	5	NA	1,341	NA	NA

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

range for 1989-1991 were derived from historical data. The estimation did not include retirements that occurred prior to 1992 and included only the capacity of facilities that came on line before 1992.

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

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

Web Page: http://www.eia.doe.gov/emeu/mer/elect.html.
Sources: Net Generation: Tables 7.2-7.4. Imports and Exports:
See end of section. Losses and Unaccounted for: Calculated. End
Use: Table 7.5. Forecast Values: Derived from Energy Information
Administration's Short-Term Integrated Forecasting System. See related note on page 79 (Note 9).

b 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.

^c Includes nonutility sales of electricity to utilities for distribution to end users. Beginning in 1996, also includes sales to ultimate consumers by power marketers.

^d Nonutility facility use of onsite net electricity generation, and nonutility sales of electricity to end users.

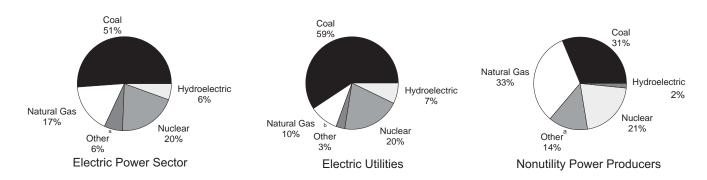
sales of electricity to end users.

^e Data for 1989-1991 were collected for facilities with capacities of 5 megawatts or more. In 1992, the threshold was lowered to include facilities with capacities of 1 megawatt or more. Estimates of the 1-to-5 megawatt

Figure 7.2 Electricity Net Generation

(Billion Kilowatthours, Excespt as Noted)

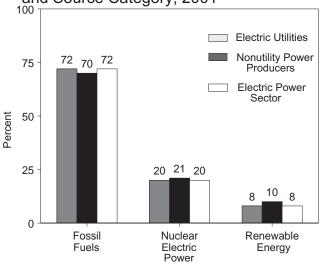
By Selected Source, 2001



By Major Source, 1989-2001

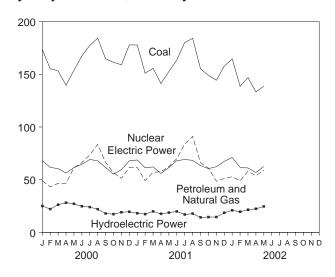
2,000 1,500 Nuclear Electric Power Petroleum and Natural Gas Hydroelectric Power 1990 1992 1994 1996 1998 2000

Shares of Net Generation by Producer Type and Source Category, 2001

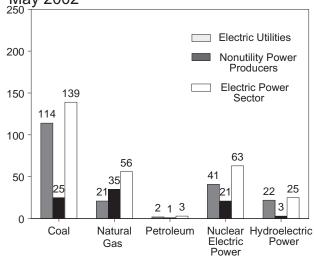


^aPetroleum, other gases, geothermal, wood, waste, wind, solar, batteries, chemicals, hydrogen, pitch, sulfur, and purchased steam. ^bPetroleum, geothermal, wood, waste, wind, and solar.

By Major Source, Monthly



By Producer Type and Selected Source, May 2002



Note: Because vertical scales differ, graphs should not be compared. Web Page: http://www.eia.doe.gov/emeu/mer/elect.html. Sources: Tables 7.2-7.4.

Table 7.2 Electricity Net Generation

		Fossil	Fuels					R	enewable	Energy			
	Coal ^a	Petro- leum ^b	Natural Gas ^c	Other Gases ^d	Nuclear Electric Power	Hydro- electric Pumped Storage ^e	Conven- tional Hydro- electric Power	Geo- thermal	Wood ^f	Waste ^{g,h}	Wind	Solar ⁱ	Total ^h
1989 Total	1,590,305 1,589,940 1,621,085 1,690,010 1,691,690 1,710,176 1,795,710 1,844,104	163,861 124,048 118,957 99,424 112,353 105,503 75,260 81,683 93,025 126,932 123,560	363,942 378,342 392,590 418,301 428,417 465,928 498,541 455,835 485,440 540,638	(j) (j) (j) (j) 12,110 13,506 14,169 11,175 8,514 E 13,330	529,402 576,974 612,642 618,841 610,367 640,492 673,402 674,729 628,644 673,702 728,254	(k) -3,508 -4,541 -4,177 -4,036 -3,378 -2,725 -3,088 -4,041 -4,441 -6,107	273,665 293,013 289,506 253,088 280,494 260,166 311,004 347,448 358,946 323,330 319,484	14,879 15,788 16,040 16,422 17,025 16,756 14,359 15,126 14,569 14,726	27,728 30,413 33,165 35,580 36,788 37,804 36,396 36,779 34,231 31,789 37,600	9,958 13,163 15,750 17,777 18,520 19,084 20,279 20,672 20,585 21,286	2,280 3,035 3,019 2,888 3,022 3,447 3,164 3,376 3,222 2,988 4,488	623 646 759 727 874 803 803 879 870 856 848	2,971,863 3,024,867 3,071,329 3,083,367 3,196,924 3,253,799 3,357,837 3,446,994 3,494,222 3,617,873 3,704,544
Petron January February March April May June July August September October November December Total	173,505 155,324 153,252 139,585 153,764 167,315 177,445 184,350 164,770 161,372 159,094 177,949	8,318 5,713 4,893 4,900 7,829 10,076 9,659 12,198 10,224 8,989 8,222 17,761 108,781	E 40,546 E 37,583 E 41,580 E 41,591 E 53,495 E 55,997 E 63,950 E 71,295 E 56,172 E 47,586 E 43,084 E 43,829 E 596,708	E1,147 E1,097 E1,096 E1,058 E1,247 E1,371 E1,479 E1,686 E1,475 E1,377 E1,319 E1,320 E15,672	68,013 61,688 60,494 56,252 61,479 64,595 69,171 67,954 61,549 55,240 59,579 67,881 753,893	-489 -417 -547 -383 -492 -561 -319 -390 -641 -415 -367 -530 -5,552	25,515 22,497 26,794 28,546 27,540 25,312 24,316 22,385 18,515 17,677 19,467 20,070 278,633	1,199 1,073 1,065 1,109 1,133 1,144 1,218 1,250 1,208 1,244 1,251 1,303 14,197	3,409 3,225 3,370 3,237 3,055 3,203 3,516 3,318 3,243 3,396 3,233 3,294 39,498	E 2,008 E 1,978 E 2,077 E 2,026 E 2,118 E 2,042 E 2,120 E 1,995 E 2,067 E 2,039 E 2,014 E 24,590	390 367 427 493 460 427 398 407 380 442 418 343 4,953	35 47 60 69 76 105 102 104 94 49 57 44 844	323,596 290,175 294,561 278,481 311,703 331,025 353,039 366,678 318,985 299,027 297,395 335,280 3,799,944
Pebruary	177,850 151,008 155,763 141,304 152,594 163,519 180,118 184,184 155,153 149,014 144,356 157,780 1,912,643 R 138,667 RF 146,904 RF 133,355 F 138,663 E 722,311	18,795 10,841 12,145 10,963 10,734 12,099 11,255 14,519 7,436 6,603 5,962 6,659 128,012 6,294 R 5,463 RF 5,928 RF 3,281 5,3159 E 24,125	E 42,706 E 38,359 E 44,844 E 46,574 E 51,756 E 57,843 E 72,396 E 76,485 E 58,657 E 54,457 E 44,463 E 631,126 E 46,476 RE 43,362 RF 52,056 RF 50,536 F 50,536 F 50,536 F 50,536 F 50,536 F 248,351	E 1,384 E 1,266 E 1,435 E 1,322 E 1,477 E 1,638 E 1,911 E 2,111 E 1,705 E 1,645 E 1,407 E 18,781 E 1,587 RE 1,492 RF 1,754 RF 1,674 F 1,801 E 8,309	68,705 61,270 62,140 55,992 61,528 68,022 69,163 63,381 60,484 62,338 67,419 768,826 71,057 R 61,738 RF 61,113 RF 56,774 F 62,543 E 313,224	-580 -473 -566 -620 -764 -891 -941 -950 -945 -629 -770 -694 -8,824 -698 R -582 RF -566 RF -629 F -668 E -3,143	18,732 17,788 20,492 18,197 19,487 20,723 17,896 18,709 15,159 15,159 15,323 19,310 216,967 21,610 R 20,136 RF 22,035 RF 23,004 F 25,274	1,290 1,154 1,192 1,101 1,070 1,086 1,176 1,163 1,136 1,159 1,156 1,190 13,874 1,203 R 1,038 RF 1,085 RF 1,012 F 978 E 5,316	3,416 2,777 2,972 2,830 2,909 2,932 3,228 3,372 3,152 3,310 3,124 3,131 37,153 8,4661 RF 3,761 RF 3,663 F 3,663 E 19,262	E 2,384 E 2,290 E 2,586 E 2,809 E 2,757 E 2,789 E 2,909 E 2,860 E 2,717 E 2,724 E 2,840 E 2,945 E 32,611 E 2,833 RE 2,277 RF 2,384 RF 2,320 F 2,377 E 12,191	318 320 490 662 626 650 581 509 416 468 365 412 5,815 169 RF 816 RF 966 FF 966 F 3,570 F 3,570	E 12 E 13 E 44 E 60 E 91 E 112 E 122 E 126 E 49 E 62 E 46 E 860 E 31 RE 33 RF 66 RF 79 F 90	335,011 286,612 303,538 281,194 304,267 330,522 359,813 371,470 308,094 294,434 278,742 304,148 3,757,844 318,717 R 278,793 RF 297,336 RF 276,035 F 294,991 E 1,465,872
2001 5-Month Total 2000 5-Month Total	778,519 775,430	63,478	E 224,240 E 214,795	E 6,883 E 5,644	309,634 307,925	-3,002 -2,328	94,696 130,891	5,808 5,579	14,904 16,295	E 12,826 E 10,207	2,415 2,138	E 221 E 287	1,510,622 1,498,516

^a Coal, fine coal, anthracite culm, bituminous gob, lignite waste, tar coal, waste coal, and coke breeze.

byproducts, tires, agricultural byproducts, closed loop biomass, fish oil, and straw.

^h "Total" includes batteries, chemicals, hydrogen, pitch, sulfur, and purchased

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: Tables 7.3 and 7.4.

This table represents the entire U.S. electric power sector. See Table 7.3 for electric utilities only. See Table 7.4 for nonutility power producers only.

^b Fuel oil nos. 1, 2, 4, 5, and 6, crude oil, petroleum coke, kerosene, liquid butane, liquid propane, methanol, liquid byproducts, oil waste, sludge oil, and tar

c Includes supplemental gaseous fuels at electric utilities.
d Blast furnace gas, coke oven gas, butane gas, propane gas, refinery gas, and other process and waste gases derived from coal, petroleum, and natural gas.

Pumped storage facility production minus energy used for pumping.

f Wood, wood waste, black liquor, red liquor, spent sulfite liquor, wood sludge, peat, railroad ties, and utility poles.

g Municipal solid waste, landfill gas, methane, digester gas, liquid acetonitrile waste, tall oil, waste alcohol, medical waste, paper pellets, sludge waste, solid

steam, which are not separately displayed. Beginning in 1999, these components are also included in "Waste."

Solar thermal and photovoltaic energy.

Included in natural gas.

^k Included in conventional hydroelectric power.

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

Electricity Net Generation at Electric Utilities Table 7.3

	F	ossil Fuels					F	Renewable	Energy			
	Coal	Petro- leum ^a	Natural Gas ^b	Nuclear Electric Power	Hydro- electric Pumped Storage ^c	Conven- tional Hydro- electric Power	Geo- thermal	Wood ^d	Waste ^e	Wind	Solar ^f	Total
1973 Total	847,651	314,343	340,858	83,479	(^g)	272,083	1,966	130	198	0	0	1,860,710
1974 Total	828,433	300,931	320,065	113,976	(g)	301,032	2,453	69	182	0	0	1,867,140
1975 Total	852,786	289,095	299,778	172,505	(g)	300,047	3,246	18	174	0	0	1,917,649
1976 Total 1977 Total	944,391 985,219	319,988 358,179	294,624 305,505	191,104 250,883	(g)	283,707 220,475	3,616 3,582	84 308	182 173	0	0	2,037,696 2,124,323
1978 Total	975,742	365,060	305,391	276,403	(9)	280,419	2,978	197	140	Ö	ő	2,206,331
1979 Total	1,075,037	303,525	329,485	255,155	(g)	279,783	3,889	300	198	0	0	2,247,372
1980 Total	1,161,562	245,994	346,240	251,116	(g)	276,021	5,073	275	158	0	0	2,286,439
1981 Total 1982 Total	1,203,203 1,192,004	206,421 146,797	345,777 305,260	272,674 282,773	(g) (g)	260,684 309,213	5,686 4,843	245 196	123 125	0	0	2,294,812 2,241,211
1983 Total	1,259,424	144,499	274,098	293,677	(9)	332,130	6,075	216	163	3	0	2,310,285
1984 Total	1,341,681	119,808	297,394	327,634	(9)	321,150	7,741	461	425	6	5	2,416,304
1985 Total	1,402,128	100,202	291,946	383,691	(g)	281,149	9,325	743	640	6	11	2,469,841
1986 Total	1,385,831	136,585	248,508	414,038	(g)	290,844	10,308	492	685	4	14	2,487,310
1987 Total 1988 Total	1,463,781 1,540,653	118,493 148,900	272,621 252,801	455,270 526,973	(g)	249,695 222,940	10,775 10,300	783 936	694 738	4	10 9	2,572,127 2,704,250
1989 Total	1,553,661	158,318	266,598	529,355	(9)	265,063	9,342	972	993	(s)	3	2,784,304
1990 Total	1,559,606	117,017	264,089	576,862	-3,508	283,434	8,581	810	1,257	(s)	2	2,808,151
1991 Total	1,551,167	111,463	264,172	612,565	-4,541	280,061	8,087	732	1,314	(s)	3	2,825,023
1992 Total	1,575,895	88,916	263,872	618,776	-4,177	243,736	8,104	816	1,276	(s)	3	2,797,219
1993 Total 1994 Total	1,639,151	99,539 91,039	258,915 291,115	610,291	-4,036 -3,378	269,098 247,071	7,571 6,941	890 765	1,100 1,224	(s)	4	2,882,525
1995 Total	1,635,493 1,652,914	60,844	307,306	640,440 673,402	-3,376	296,378	4,745	633	1,016	(s) 11	4	2,910,712 2,994,529
1996 Total	1,737,453	67,346	262,730	674,729	-3,088	331,058	5,234	788	1,179	10	3	3,077,442
1997 Total	1,787,806	77,753	283,625	628,644	-4,041	341,273	5,469	739	1,244	6	3	3,122,522
1998 Total	1,807,480	110,158	309,222	673,702	-4,441	308,844	5,176	719	1,305	3	3	3,212,171
1999 Total	1,767,679	86,929	296,381	725,036	-5,982	299,914	1,698	684	1,307	23	3	3,173,674
2000 January	153,871	4,771	18,152	66,214	-470	23,281	14	44	111	3	(s)	265,991
February	137,477	3,184 2,974	16,166	60,053	-401	20,654 24,531	13 13	59 61	115 131	4 2	(s)	237,324
March April	135,329 122,437	3,110	20,186 20,937	58,704 54,514	-534 -342	26,172	13	58	131	2	(s) (s)	241,397 227,031
May	134,171	5,743	29,146	59,864	-435	25,190	13	55	140	2	(s)	253,890
June	145,722	7,395	29,226	62,973	-500	23,136	13	48	113	2	(s)	268,128
July	150,690	7,004	35,077	64,538	-247	22,167	13	59	118	2	(s)	279,421
August	156,643	8,689 7,488	38,381	62,905	-317 -570	20,193	13 11	61 55	113 108	2	(s)	286,682
September October	139,802 137,211	5,758	27,366 20,693	54,521 49,097	-354	16,352 15,788	12	67	116	2	(s) (s)	245,137 228,389
November	134,200	4,914	17,332	52,841	-314	17,602	12	65	107	4	(s)	226,765
December	149,065	11,150	18,054	59,209	-475	18,088	13	67	55	2	(s)	255,229
Total	1,696,619	72,180	290,715	705,433	-4,960	253,155	151	700	1,358	29	3	3,015,383
2001 January	143,601	11,245	15,687	48,873	-528	17,047	14	63	96	9	(s)	236,107
February	121,342	6,070	13,643	43,544	-402	16,030	12	54	78	8	(s)	200,381
March	126,826 115,574	6,753 6,826	16,826 20,771	43,476 39,031	-473 -523	18,518 15,811	14 13	51 44	114 116	11 14	(s)	212,116 197,676
April May	126,350	7,010	22,918	43,328	-671	17,319	(s)	33	138	12	(s) (s)	216,436
June	134,165	7,753	25,865	47,849	-786	18,649	15	46	132	12	(s)	233,699
July	147,348	7,225	35,093	48,444	-835	16,429	16	46	121	13	(s)	253,900
August	149,805	8,944	35,267	48,262	-839	17,512	16	58	122	13	(s)	259,161
September	126,751 121,573	5,190 4,244	25,363 22,347	43,859 41,200	-823 -537	14,165 14,203	13 16	56 47	99 98	11 13	(s)	214,685 203,204
October November	121,573	3,747	15,223	41,200	-53 <i>1</i> -692	14,203	14	31	98	9	(s) (s)	203,204 191,749
December	129,191	3,913	15,431	44,929	-596	17,831	10	32	95	10	(s)	210,847
Total	1,560,146	78,919	264,434	534,207	-7,705	197,810	152	560	1,301	135	3	2,629,962
2002 January	_ 131,313	_ 3,997	_ 15,492	46,960	658	_ 20,223	_ 16	_ 40	100	_ 18	(s)	_ 217,503
February	R 112,494	R 3,128	R 14,223	R 40,338	R -518	R 18,430	R 15	R 46	R 84	R 17	(s) F (s)	R 188,257
March	RF 120,307	RF 3,390 RF 1.896	RF 17,803	RF 40,176	RF -421 RF -422	RF 10,863	F 13	RF 40 RF 39	RF 105	RF 25 RF 30	「(S) F(s)	RF 105 770
April May	RF 109,083 F 113,727	F1,909	^{RF} 17,844 F 20,761	RF 37,306 F 41,080	F-474	^{RF} 19,881 F 22,351	F 13 F 13	F 39	^{RF} 101 F 102	F 29	F (s) F (s)	RF 185,770 F 199,537
5-Month Total	E 586,923	E 14,319	E 86,122	E 205,860	E -2,492	E 100,749	E 71	E 204	E 491	E 119	E (S)	E 992,368
2001 5-Month Total	633,694	37,904	89,845	218,253	-2,598	84,724	52	244	542	54	1	1,062,716
2000 5-Month Total	683,286	19,782	104,587	299,348	-2,182	119,828	65	277	628	12	1	1,225,633

a Fuel oil nos. 1, 2, 4, 5, and 6, crude oil, kerosene, and petroleum coke.
 b Includes supplemental gaseous fuels.
 c Pumped storage facility production minus energy used for pumping.
 d Wood, wood waste, wood liquors, wood sludge, peat, railroad ties, and utility

poles.

^e Municipal solid waste, landfill gas, methane, digester gas, waste alcohol, sludge waste, solid byproducts, and tires.

^f Solar thermal and photovoltaic energy.

 ⁹ Included in conventional hydroelectric power.
 R=Revised. E=Estimate. F=Forecast. (s)=Less than 0.5 million kilowatthours.
 Notes: Totals may not equal sum of components due to independent unding. Geographic coverage is the 50 states and the District of Columbia.

R=Revised. E=Estimate. r=rurecast. (s)=Less trial to similar information.

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 end of section. Forecast values are derived from Energy Information Administration's Short-Term Integrated Forecasting System. See related note on page 79 (Note 9).

Table 7.4 Electricity Net Generation at Nonutility Power Producers

		Fossil I	Fuels					F	Renewable	Energy			
	Coal ^a	Petro- leum ^b	Natural Gas ^c	Other Gases ^d	Nuclear Electric Power	Hydro- electric Pumped Storage ^e	Conventional Hydro- electric Power	Geo- thermal	Wood ^f	Waste ^{g,h}	Wind	Solar ⁱ	Total ^h
1989 Total 1990 Total 1991 Total 1992 Total 1993 Total 1994 Total 1995 Total 1995 Total 1996 Total 1997 Total 1998 Total 1999 Total	30,163 30,699 38,773 45,189 50,859 56,197 57,261 58,257 56,298 66,466 116,642	5,543 7,031 7,494 10,508 12,814 14,464 14,416 14,337 15,272 16,775 36,631	97,343 114,253 128,419 154,429 169,502 174,813 191,235 193,106 201,816 231,415	(k) (k) (k) (k) (k) 12,110 13,506 14,169 11,175 8,514	47 113 77 65 76 52 0 0 0 0 3,218	0 0 0 0 0 0 0 0 0	8,602 9,580 9,446 9,352 11,396 13,095 14,626 16,390 17,673 14,486 19,570	5,537 7,207 7,953 8,318 9,454 9,816 9,614 9,892 9,100 9,550 13,316	26,756 29,603 32,433 34,764 35,898 37,039 35,763 35,991 33,492 31,070 36,916	8,965 11,906 14,435 16,500 17,420 17,860 19,263 19,493 19,341 19,981 E 25,794	2,279 3,035 3,019 2,887 3,022 3,447 3,153 3,366 3,216 2,985 4,465	621 644 756 724 870 799 799 876 866 854	187,558 216,716 246,306 286,148 314,399 343,087 363,308 369,552 371,700 405,702 530,871
Page 1 Total	19,634 17,847 17,923 17,148 19,593 26,755 27,707 24,967 24,161 24,894 28,884 271,106	3,547 2,528 1,919 1,791 2,086 2,681 2,656 3,509 2,735 3,232 3,307 6,611 36,601	E 22,394 E 21,417 E 21,394 E 20,654 E 24,349 E 26,771 E 28,873 E 32,915 E 28,806 E 26,894 E 25,752 E 25,776 E 305,993	E1,147 E1,097 E1,096 E1,058 E1,247 E1,371 E1,479 E1,686 E1,475 E1,377 E1,377 E1,330 E1,320	1,799 1,635 1,790 1,737 1,615 1,622 4,633 5,049 7,028 6,143 6,737 8,672 48,460	-19 -16 -13 -41 -57 -61 -71 -73 -71 -60 -54 -56	2,234 1,842 2,263 2,374 2,350 2,176 2,148 2,192 2,162 1,889 1,865 1,983 25,478	1,186 1,061 1,052 1,095 1,120 1,132 1,205 1,237 1,197 1,232 1,238 1,290 14,046	3,365 3,167 3,308 3,179 2,999 3,155 3,456 3,257 3,188 3,330 3,167 3,227 38,798	E 1,897 E 1,863 E 1,946 E 1,896 E 1,978 E 1,929 E 1,986 E 2,008 E 1,887 E 1,951 E 1,952 E 1,959 E 23,232	387 364 426 491 458 424 397 405 379 440 414 341 4,925	35 47 60 69 76 104 102 104 94 49 57 44 842	57,605 52,851 53,164 51,450 57,814 62,896 73,618 79,996 70,637 70,630 80,051 784,561
2001 January	34,248 29,666 28,936 25,730 26,244 29,355 32,770 34,379 28,402 27,441 26,737 28,589 352,498 33,420 R 26,163 RF 26,597 RF 24,272 F 24,936	7,550 4,771 5,392 4,137 3,724 4,346 4,030 5,575 2,247 2,360 2,216 2,747 49,093 2,297 R 2,335 RF 2,539 RF 1,386 F 1,249	E 27,019 E 24,715 E 28,018 E 25,803 E 28,838 E 31,978 E 37,303 E 41,218 E 33,294 E 32,110 E 27,361 E 29,032 E 366,692 E 30,983 RE 29,140 RF 34,253 RF 32,692 F 35,161	E 1,384 E 1,266 E 1,435 E 1,322 E 1,477 E 1,638 E 1,911 E 2,111 E 1,705 E 1,645 E 1,401 E 1,487 E 18,781 E 1,587 RE 1,492 RF 1,754 RF 1,674 F 1,674	19,831 17,725 18,664 16,961 18,200 20,173 20,719 20,123 19,521 19,284 20,927 22,490 234,619 24,096 R 21,400 RF 20,937 RF 19,468 F 21,463	-52 -71 -93 -96 -93 -105 -106 -111 -122 -92 -79 -99 -1,119 -40 RF -145 RF -208 F -194	1,684 1,758 1,974 2,387 2,169 2,075 1,466 1,197 1,028 1,479 19,157 1,387 R 1,706 RF 2,172 RF 3,123 F 2,923	1,277 1,142 1,178 1,088 1,071 1,160 1,147 1,123 1,143 1,141 1,180 13,722 1,187 R 1,023 RF 1,072 RF 999 F 964	3,353 2,723 2,921 2,786 2,877 2,886 3,182 3,314 3,096 3,263 3,093 3,098 36,593 3,382 R 4,615 RF 3,721 RF 3,624 F 3,715	E 2,288 E 2,212 E 2,472 E 2,693 E 2,619 E 2,658 E 2,738 E 2,618 E 2,626 E 2,748 E 2,850 E 31,309 E 2,733 RE 2,193 RF 2,279 RF 2,279	309 311 479 648 614 637 568 495 405 456 356 402 5,680 151 R 502 R 791 RF 937 F 1,071	E 12 E 13 E 44 E 60 E 91 E 112 E 121 E 122 E 125 E 49 E 62 E 46 E 856 E 30 RE 33 RF 66 RF 78 F 89	98,905 86,231 91,422 83,518 87,831 96,823 105,912 112,308 93,409 91,229 86,992 93,301 1,127,882 101,214 R 90,536 RF 90,635 RF 90,035 F 95,453
5-Month Total 2001 5-Month Total 2000 5-Month Total	E 135,388 144,825 92,145	^E 9,806 25,573 11,871	E 162,229 E 134,394 E 110,208	E 6,883 E 5,644	91,382 8,577	^E -651 -405 -146	^E 11,310 9,972 11,063	^E 5,245 5,756 5,514	E 19,058 14,661 16,018	E 11,699 E 12,284 E 9,579	2,362 2,125	E 296 E 220 E 286	^E 473,504 447,906 272,884

^a Coal, fine coal, anthracite culm, bituminous gob, lignite waste, tar coal, waste coal, and coke breeze.

b Fuel oil nos. 1, 2, 4, 5, and 6, crude oil, petroleum coke, kerosene, liquid

or more. In 1992, the threshold was lowered to include facilities with capacities of 1 megawatt or more. Estimates of the 1-to-5 megawatt range for 1989-1991 were derived from historical data. The estimation did not include retirements that occurred prior to 1992 and included only the capacity of facilities that came on line before 1992.

Notes: Due to restructuring of the electric power sector, the sale of generation assets is resulting in reclassification of plants from electric utility to nonutility 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: 1989-1998: Energy Information Administration (EIA), Form
EIA-860B, "Annual Electric Generator Report-Nonutility" and predecessor form.
1999 and 2000: EIA, Form EIA-900, "Monthly Nonutility Power Report."
2001 and 2002: EIA, Form EIA-906, "Power Plant Report." Forecast Values: Derived from EIA's Short-Term Integrated Forecasting System. See related note on page 79 (Note 9).

butane, liquid propane, methanol, liquid byproducts, oil waste, sludge oil, and tar

^c Natural gas only.

d Blast furnace gas, coke oven gas, butane gas, propane gas, refinery gas, and other process and waste gases derived from coal, petroleum, and natural gas.

^e Pumped storage facility production minus energy used for pumping.

f Wood, wood waste, black liquor, red liquor, spent sulfite liquor, wood sludge, peat, railroad ties, and utility poles.

⁹ 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.

[&]quot;Total" includes batteries, chemicals, hydrogen, pitch, sulfur, and purchased steam, which are not separately displayed. Beginning in 1999, these components are also included in "Waste."

Solar thermal and photovoltaic energy.

Data for 1989-1991 were collected for facilities with capacities of 5 megawatts

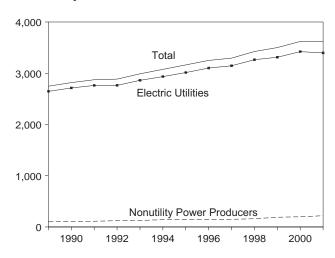
Included in natural gas.

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

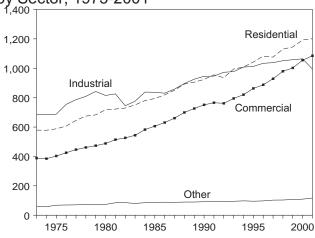
Figure 7.3 Electricity End Use

(Billion Kilowatthours)

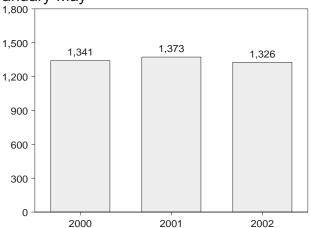
Electricity End Use Overview, 1989-2001



Electric Utility Retail Sales by Sector, 1973-2001

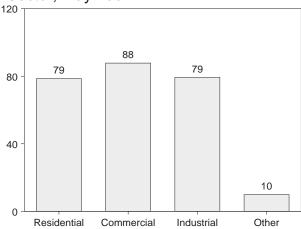


Electric Utility Retail Sales Total, January-May

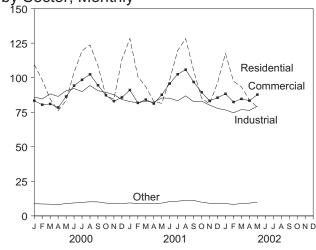


Notes: • Electric utility data include nonutility sales of electricity to utilities for distribution to end users; beginning in 1996, they also include sales to ultimate consumers by power marketers. • Nonutility data are for nonutility facility use

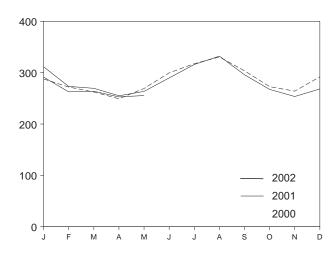
Electric Utility Retail Sales by Sector, May 2002



Electric Utility Retail Sales by Sector, Monthly



Electric Utility Retail Sales Total, Monthly



of onsite net electricity generation, and nonutility sales of electricity to end users. • 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

		Electri	c Utility Retail	Salesa		Nonut	ility Power Pro	ducers	
	Residential	Commercial	Industrial	Otherb	Total	Direct Use ^c	Sales to End Users	Total	Totala
1973 Total	579,231	388,266	686,085	59,326	1,712,909	NA	NA	NA	NA
1974 Total	578,184	384,826	684,875	58,039	1,705,924	NA	NA	NA	NA
1975 Total	588,140	403,049	687,680	68,222	1,747,091	NA	NA	NA	NA
1976 Total	606,452	425,094	754,069	69,631	1,855,246	NA	NA	NA	NA
1977 Total	645,239	446,514	786,037	70,571	1,948,361	NA	NA	NA	NA
1978 Total	674,466	461,163	809,078	73,215	2,017,922	NA	NA	NA	NA
1979 Total	682,819	473,307	841,903	73,070	2,071,099	NA	NA	NA	NA
1980 Total	717,495	488,155	815,067	73,732	2,094,449	NA	NA	NA	NA
1981 Total	722,265	514,338	825,743	84,756	2,147,103	NA	NA	NA	NA
1982 Total	729,520	526,397	744,949	85,575	2,086,441	NA NA	NA NA	NA NA	NA NA
1983 Total	750,948	543,788	775,999 837.836	80,219	2,150,955	NA NA	NA NA	NA NA	NA NA
1984 Total 1985 Total	780,092 793,934	582,621 605,989	836,772	85,248 87,279	2,285,796 2,323,974	NA NA	NA NA	NA NA	NA NA
1986 Total	819,088	630,520	830,531	88,615	2,368,753	NA NA	NA NA	NA NA	NA NA
1987 Total	850,410	660,433	858,233	88,196	2,457,272	NA	NA NA	NA NA	NA NA
1988 Total	892,866	699,100	896,498	89,598	2,578,062	NA	NA NA	NA	NA NA
1989 Total	905,525	725,861	925,659	89,765	2,646,809	d 82,742	d17,687	d100,430	2,747,239
1990 Total	924,019	751,027	945,522	91,988	2,712,555	d 84,367	d 19,824	d104,191	2,816,746
1991 Total	955,417	765,664	946,583	94,339	2,762,003	d 99,623	d11,419	d111,042	2,873,045
1992 Total	935,939	761,271	972,714	93,442	2,763,365	110,988	10,786	121,774	2,885,140
1993 Total	994,781	794,573	977,164	94,944	2,861,462	111,322	15,569	126,891	2,988,353
1994 Total	1,008,482	820,269	1,007,981	97,830	2,934,563	123,283	17,626	140,909	3,075,472
1995 Total	1,042,501	862,685	1,012,693	95,407	3,013,287	133,609	15,548	149,157	3,162,443
1996 Total	1,082,512	887,445	1,033,631	97,539	3,101,127	134,644	14,284	148,928	3,250,055
1997 Total	1,075,880	928,633	1,038,197	102,901	3,145,610	130,836	18,147	148,983	3,294,593
1998 Total	1,130,109	979,401	1,051,203	103,518	3,264,231	134,041	25,777	159,818	3,424,049
1999 Total	1,144,923	1,001,996	1,058,217	106,952	3,312,087	147,161	41,683	188,844	3,500,931
2000 January	109,492	83,414	85,988	8,869	287,764	NA	NA	NA	NA
February	98,446	80,425	84,611	8,613	272,095	NA	NA	NA	NA
March	84,645	81,012	88,299	8,462	262,418	NA	NA	NA	NA
April	76,228	78,377	86,439	8,131	249,175	NA	NA	NA	NA
May	83,366	86,362	90,562	8,972	269,263	NA	NA	NA	NA
June	103,976	94,258	92,185	9,345	299,765	NA	NA	NA	NA
July	119,475	98,459	89,895	9,737	317,566	NA	NA	NA	NA
August	123,769	102,422	94,327	10,214	330,733	NA	NA	NA	NA
September	108,546	94,453	90,599	10,094	303,693	NA	NA	NA	NA
October	86,832	87,326	89,418	9,260	272,835	NA	NA	NA	NA
November	84,516	83,019	87,687	8,899	264,121	NA	NA	NA	NA
December	113,153	85,704	84,230	8,900	291,988	NA	NA	NA_	NA
Total	1,192,446	1,055,232	1,064,239	109,496	3,421,414	NA	NA	^F 198,593	E 3,620,007
2001 January	128,287	91,062	82,730	9,400	311,479	NA	NA	NA	NA
February	100,887	81,761	81,807	8,856	273,310	NA	NA	NA	NA
March	93,439	84,157	83,027	8,952	269,575	NA	NA	NA	NA
April	82,823	81,230	82,295	8,742	255,090	NA	NA	NA	NA
May	81,427	87,623	85,298	9,268	263,616	NA	NA	NA	NA
June	98,553	95,790	85,174	10,332	289,849	NA	NA	NA	NA
July	119,654	102,474	83,267	10,619	316,014	NA	NA	NA	NA
August	128,295	105,832	86,868	11,305	332,300	NA	NA	NA	NA
September	105,240	96,899	82,614	11,203	295,956	NA	NA	NA	NA
October	85,090 81,077	89,479	83,064	9,906	267,539	NA	NA NA	NA NA	NA NA
November December	81,077 96,222	83,224 85,505	80,182 77,756	9,129 8,939	253,611 268,423	NA NA	NA NA	NA NA	NA NA
Total	1,200,992	1,085,036	994,083	116,652	3,396,764	NA NA	NA NA	F 218,637	E 3,615,401
2002 January	117,512	88,319	76,633	8,927	291,391	NA	NA	NA	NA
February	R 97 486	R 82,365	R 74.610	R 8 262	R 262,723	NA	NA	NA	NA
March	RF 93,297	RF 84,655	RF 76,956	RF 8,982	RF 263,889	NA	NA	NA	NA
April	RF 83,905	RF 83,381	RF 76,317	RF 9,236	RF 252,839	NA	NA	NA	NA
May	F 78.564	F 87,763	F 79,322	F 9,897	F 255,546	NA	NA	NA	NA
5-Month Total	E 470,763	€ 426,483	E 383,837	E 45,304	E 1,326,388	NA	NA	NA	NA
2001 5-Month Total	486,863	425,833	415,157	45,219	1,373,071	NA	NA	NA	NA
2000 5-Month Total	452,178	409,590	435,899	43,047	1,340,714	NA	NA	NA	NA

a Includes nonutility sales of electricity to utilities for distribution to end users.
 Beginning in 1996, also includes sales to ultimate consumers by power marketers.
 b Public street and highway lighting, other sales to public authorities, sales to

occurred prior to 1992 and included only the capacity of facilities that came on line before 1992.

R=Revised. 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/elect.html.

Sources: See end of section. Forecast values are derived from Energy Information Administration's Short-Term Integrated Forecasting System. See related note on page 79 (Note 9).

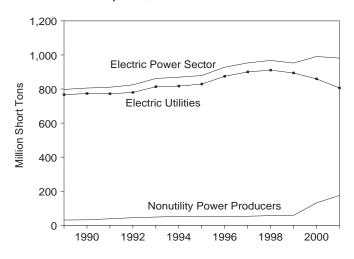
railroads and railways, and interdepartmental sales.

^c Nonutility facility use of onsite net electricity generation.

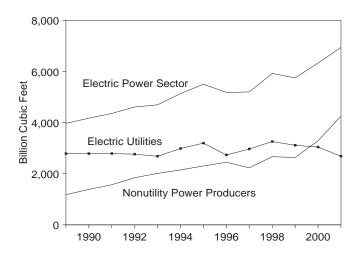
^d Data for 1989-1991 were collected for facilities with capacities of 5 megawatts or more. In 1992, the threshold was lowered to include facilities with capacities of 1 megawatt or more. Estimates of the 1-to-5 megawatt range for 1989-1991 were derived from historical data. The estimation did not include retirements that

Figure 7.4 Consumption of Fossil Fuels To Generate Electricity

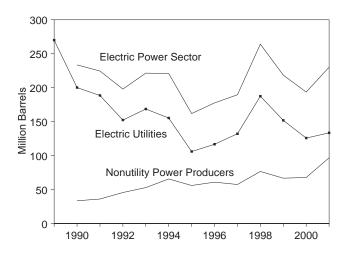
Coal Consumption, 1989-2001



Natural Gas Consumption, 1989-2001



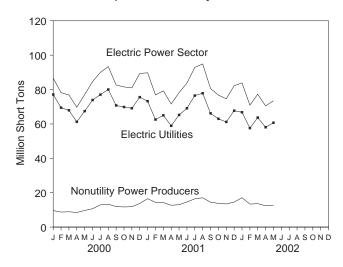
Petroleum Consumption, 1989-2001



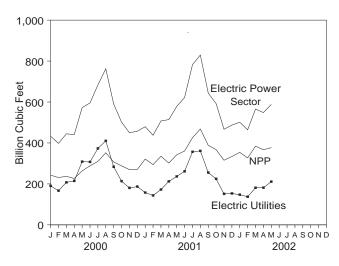
NPP=Nonutility Power Producers.

Note: • Electric utility data for all years are for fuels consumed to produce electricity only. • Nonutility data prior to 1999 are for fuels consumed to produce both electricity and useful thermal output; monutility data for 1999 forward are for

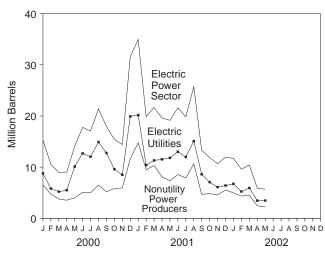
Coal Consumption, Monthly



Natural Gas Consumption, Monthly



Petroleum Consumption, Monthly



fuels consumed to produce electricity only. • Petroleum includes petroleum coke, which is converted to liquid units at 5 barrels per short ton. • Because vertical scales differ, graphs should not be compared. Web Page: http://www.eia.doe.gov/emeu/mer/elect.html. Sources: Tables 7.6, 7.7, and 7.8.

Table 7.6 Consumption of Fossil Fuels To Generate Electricity

			Petroleum		
	Coal ^a	Liquids b	Petroleum Coke ^c	Total ^c	Natural Gas ^d
	Thousand Short Tons	Thousand Barrels	Thousand Short Tons	Thousand Barrels	Million Cubic Feet
1989 Total	797,650	295,828	NA	NA 	3,968,027
1990 Total	805,860	223,932	1,927	233,570	4,174,073
991 Total	810,387	212,768	2,351	224,521	4,358,864
992 Total	824,467	179,211	3,749	197,955	4,610,465
993 Total	861,851	199,414	4,402	221,426	4,696,228
994 Total	869,531	192,893	5,615	220,966	5,136,392
995 Total	879,336	137,181	4,949	161,927	5,500,451
996 Total	927,880	151,718	5,165	177,544	5,179,827
997 Total	953,274	160,740	5,764	189,561	5,199,816
998 Total	967,716	232,889	6,239	264,086	5,924,484
999 Total	952,516	195,971	4,523	218,584	E 5,748,944
000 January	86,680	13,136	432	15,295	E 433,009
February	78,180	8,610	386	10,540	E 398.053
March	76,835	7,139	369	8,986	E 444.525
April	69,715	7,139	350	9,034	E 441.203
May	77,092	12,550	310	14,102	E 572,447
,	84.601	16.127	329	17,772	E 595.733
June	- /	-,		,	
July	89,976	15,450	321	17,057	E 683,015
August	93,366	19,648	349	21,391	E 762,448
September	82,656	16,231	346	17,962	^E 590,715
October	81,549	13,778	326	15,406	^E 501,618
November	80,967	12,801	325	14,426	E 450,103
December	89,348	30,016	308	31,554	_ ^E 457,314
Total	990,966	172,769	4,153	193,533	^E 6,330,184
001 January	89,754	32,866	419	34,959	E 479,304
February	76,901	17,986	379	19,883	E 437,764
March	79,243	19.740	381	21.647	E 507.414
April	71,601	17,994	325	19,621	E 514,140
May	78,254	17,245	381	19,150	E 578,508
June	83,711	19,647	386	21,579	E 621,977
July	92,925	17,600	449	19,846	E 782,353
August	94.884	23,564	434	25.733	E 829.657
September	80,601	11,250	413	13,314	E 643,556
October	76,774	9,777	421	11,883	E 592,310
November	74,633	8,876	361	10,680	E 466,911
December	82,230	9,534	481	11,940	E 487.225
Total	981,511	9,534 206,081	4,831	230,235	E 6,941,118
Total	961,511	200,001	4,031	230,235	- 0,941,116
002 January	83,858	9,060	532	11,718	E 501,509
February	^R 70,939	^R 7,469	425	R 9,593	RE 464,348
March	^{RF} 77,305	RF 8,594	RF 366	^{RF} 10,425	^{RF} 565,572
April	^{RF} 70,482	^{RF} 4,917	RF 196	^{RF} 5,895	RF 548,467
May	F 73,468	F 4,793	^F 178	F 5,685	F 588,277
5-Month Total	E 376,052	E 34,833	E 1,697	E 43,316	E 2,668,173
001 5-Month Total	395,753	105,831	1,885	115,260	E 2,517,130
000 5-Month Total	388,502	48,717	1,847	57,957	E 2,289,237
ooo o month rotar	300,302	70,717	1,077	31,331	2,203,231

^a Coal, fine coal, anthracite culm, bituminous gob, lignite waste, tar coal,

Electric utility data for all years are for fuels consumed to produce

electricity only. Nonutility data prior to 1999 are for fuels consumed to produce both electricity and useful thermal output; nonutility data for 1999 forward are for fuels consumed to produce electricity only. 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: Tables 7.7 and 7.8.

This table represents the entire U.S. electric power sector. See Table 7.7 for electric utilities only. See Table 7.8 for nonutility power producers only.

waste coal, and coke breeze.

^b Fuel oil nos. 1, 2, 4, 5, and 6, crude oil, kerosene, liquid butane, liquid propane, methanol, liquid byproducts, oil waste, sludge oil, and tar oil.

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

d Includes supplemental gaseous fuels at electric utilities.
R=Revised. NA=Not available. E=Estimate. F=Forecast.

Table 7.7 Consumption of Fossil Fuels To Generate Electricity at Electric Utilities

	Coal	Lla		Petroleum	1		
	Ooai	Heavy Oil ^a	Light Oil ^b	Total Liquids	Petroleum Coke ^c	Total ^c	Natural Gas ^d
	Thousand Short Tons		Thousand Barrels	•	Thousand Short Tons	Thousand Barrels	Million Cubic Feet
1973 Total	389,212	513,190	47,058	560,248	507	562,781	3,660,172
1974 Total 1975 Total	391,811 405,962	483,146 467,221	53,128 38,907	536,274 506,128	625 70	539,399 506,479	3,443,428 3,157,669
1976 Total	448,371	514,077	41,843	555,920	68	556,261	3,080,868
1977 Total	477,126	574,869	48,837	623,705	98	624,193	3,191,200
1978 Total	481,235	588,319	47,520	635,839	398	637,830	3,188,363
1979 Total	527,051	492,606	30,691	523,297	268	524,636	3,490,523
1980 Total	569,274	391,163	29,051	420,214	179	421,110	3,681,595
1981 Total	596,797	329,798	21,313	351,111	139	351,806	3,640,154
1982 Total 1983 Total	593,666 625,211	234,434 228,984	15,337 16,512	249,771 245,497	149 261	250,517 246,804	3,225,518 2,910,767
1984 Total	664,399	189,289	15,190	204,479	252	205,736	3,111,342
1985 Total	693,841	158,779	14,635	173,414	231	174,571	3,044,083
1986 Total	685,056	216,156	14,326	230,482	313	232,046	2,602,370
1987 Total	717,894	184,011	15,367	199,378	348	201,116	2,844,051
1988 Total	758,372	229,327	18,769	248,096	409	250,141	2,635,613
1989 Total	766,888	241,960	25,491	267,451	517	270,038	2,787,012
1990 Total	773,549	181,231	14,823	196,054	819	200,152	2,787,332
1991 Total	772,268 779,860	171,157 135.779	13,729	184,886 147,335	722 999	188,494 152.329	2,789,014
1992 Total 1993 Total	813,508	149,287	11,556 13.168	162,454	1,220	168,556	2,765,608 2,682,440
1994 Total	817,270	134,666	16,338	151,004	875	155,377	2,987,146
1995 Total	829.007	86,584	15,565	102,150	761	105,956	3,196,507
1996 Total	874,681	96,382	16,892	113,274	681	116,680	2,732,107
1997 Total	900,361	109,989	15,157	125,146	1,400	132,147	2,968,453
1998 Total	910,867	156,573	22,041	178,614	1,769	187,461	3,258,054
1999 Total	894,120	122,303	21,528	143,830	1,608	151,868	3,113,419
2000 January	77,090	6,194	1,769	7,963	162	8,772	190,316
February	69,442	4,083	1,068	5,150	132	5,810	166,842
March	67,925	3,859	913	4,772	87	5,209	207,545
April	61,214	4,222	824	5,046	89	5,493	214,599
May	67,428 73,910	7,781 10,533	1,921 1,659	9,702 12,192	81 99	10,109 12,687	308,787
June July	77,051	9,792	1,957	11,749	58	12,067	307,218 373,256
August	80,021	12,149	2,198	14,347	114	14,915	410,344
September	70,725	10,836	1,485	12,321	87	12,757	283,535
October	69,835	8,222	1,023	9,245	69	9,588	213,487
November	69,114	6,827	1,292	8,120	74	8,490	180,318
December	75,579	12,852	6,668	19,520	80	19,918	186,846
Total	859,335	97,350	22,779	120,129	1,132	125,788	3,043,094
2001 January	73,236	13,210	6,425	19,636	108	20,174	157,736
February	62,523	8,190	1,694	9,884	100	10,386	143,619
March	64,993	9,032	1,886	10,917	80	11,319	172,448
April	58,889	9,427	1,820	11,246	53	11,513	212,257
May	65,233	9,801	1,626	11,427	77	11,812	236,407
June July	69,126 76,487	11,111 10,018	1,355 1,261	12,466 11,279	111 139	13,023 11,975	261,345 356,801
August	77,839	12,440	1,762	14,202	177	15,086	361,218
September	66,126	7,102	787	7,889	145	8,613	255,236
October	62,963	5,384	959	6,343	145	7,069	224,674
November	61,160	4,817	672	5,490	122	6,099	151,268
December	67,695	4,750	856	5,606	160	6,407	153,279
Total	806,269	105,283	21,103	126,386	1,418	133,475	2,686,287
2002 January	66,776	4,672	1,319	5,992	151	6,745	147,359
February	R 57,553	R 3.773	R 710	R 4,483	R 150	R 5,232	R 137,277
March	RF 63,696	RF 4,276	^F 1,395	RF 5,671	RF 51	RF 5,927	RF 181,110
April	RF 58,063	RF 1,971	F 1,350	RF 3,321	RF 24	RF 3,439	RF 181,528
May 5-Month Total	^F 60,709 ^E 306,797	^F 1,959 ^E 16,650	^F 1,395 ^E 6,169	^F 3,354 ^E 22,820	^F 23 E 399	^F 3,471 ^E 24,814	^F 211,203 ^E 858,478
J-WOULT TOLAL	300,131	10,030	0,109	22,020	- 333	24,014	030,470
2001 5-Month Total 2000 5-Month Total	324,874 343,099	49,661 26,139	13,451 6,495	63,111 32,634	418 552	65,203 35,393	922,467 1,088,089

^a For 1973-1979, steam plant consumption of petroleum; for 1980

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 1977-1979: Federal
Energy Regulatory Commission, Form FPC-4, "Monthly Power Plant
Report." 1980-1989: Energy Information Administration (EIA), Electric
Power Monthly, March issues. 1990 forward: EIA, Electric Power
Monthly, May 2002, Table 14. Forecast Values: Derived from EIA's
Short Tarm Interreted Forecasting System Son related note on pages 70 Short-Term Integrated Forecasting System. See related note on page 79 (Note 9).

forward, fuel oil nos. 5 and 6 (and small amounts of fuel oil no. 4).

^b For 1973-1979, gas turbine and internal combustion plant use of petroleum; for 1980 forward, fuel oil nos. 1 and 2 (and small amounts of kerosene and jet fuel).

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

d Includes supplemental gaseous fuels.

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

Table 7.8 Consumption of Fossil Fuels To Generate Electricity at Nonutility Power **Producers**

			Petroleum		
	Coala	Liquids ^b	Petroleum Coke	Total ^c	Natural Gas ^d
	Thousand Short Tons	Thousand Barrels	Thousand Short Tons	Thousand Barrels	Million Cubic Feet
1989 Total ^e	30.762	28.377	NA	NA	1.181.015
990 Total ^e	30,762	27,878	1.108	33.418	1,386,741
991 Total ^e					
	38,119	27,882	1,629	36,027	1,569,850
992 Total	44,607	31,876	2,750	45,626	1,844,857
993 Total	48,343	36,960	3,182	52,870	2,013,788
994 Total	52,261	41,889	4,740	65,589	2,149,246
995 Total	50,329	35,031	4,188	55,971	2,303,944
996 Total	53,199	38,444	4,484	60,864	2,447,720
997 Total	52,913	35,594	4,364	57,414	2,231,363
1998 Total	56,849	54,275	4,470	76,625	2,666,430
1999 Total	58,396	52,141	2,915	66,716	E 2,635,525
2000 January	9.590	5,173	270	6,523	E 242.693
February	8,738	3,460	254	4,730	E 231.211
March	8,910	2,367	282	3,777	E 236,980
April	8,501	2,236	261	3,541	E 226.604
	9.664	2,230	229	3,993	E 263.660
May	-,		230	5.085	E 288.515
June	10,691	3,935			
July	12,925	3,701	263	5,016	E 309,759
August	13,345	5,301	235	6,476	E 352,104
September	11,931	3,910	259	5,205	E 307,180
October	11,714	4,533	257	5,818	^E 288,131
November	11,853	4,681	251	5,936	^E 269,785
December	13,769	10,496	228	11,636	E 270,468
Total	131,631	52,640	3,021	67,745	E 3,287,090
001 January	16,518	13,230	311	14,785	E 321,568
February	14,378	8,102	279	9.497	E 294,145
March	14.250	8.823	301	10.328	E 334,966
April	12,712	6,748	272	8,108	E 301,883
May	13,021	5,818	304	7,338	E 342,101
June	14,585	7,181	275	8,556	E 360,632
July	16,438	6,321	310	7,871	E 425,552
August	17,045	9,362	257	10,647	E 468,439
September	14,475	3,361	268	4,701	E 388.320
October	13,811	3,434	276	4,814	E 367,636
November	13,473	3,386	239	4,581	E 315,643
December	14,535	3,928	321	5,533	E 333.946
Total	175,242	79,695	3,413	96,760	^E 4,254,831
2002 January	17,082	3,068	381	4,973	E 354,150
February	^R 13,386	R 2,986	R 275	^R 4,361	RE 327,071
March	RF 13,609	^{RF} 2,923	^{RF} 315	RF 4,498	RF 384,462
April	RF 12,419	RF 1,596	^{RF} 172	RF 2,456	RF 366,939
May	F 12,759	F 1,439	^F 155	F 2,214	F 377,074
5-Month Total	E 69,255	E 12,012	E 1,298	E 18,502	E 1,809,696
2001 5-Month Total	70.879	42,721	1.467	50.056	E 1,594,663
000 5-Month Total	45,403	16.084	1,296	22,564	E 1,201,148

^a Coal, fine coal, anthracite culm, bituminous gob, lignite waste, tar coal, waste coal, and coke breeze.

b Fuel oil nos. 1, 2, 4, 5, and 6, crude oil, kerosene, liquid butane, liquid

Notes: Data prior to 1999 are for fuels consumed to produce both electricity and useful thermal output; data for 1999 forward are for fuels consumed to

produce electricity only. Due to restructuring of the electric power sector, the sale of generation assets is resulting in reclassification of plants from electric utility to nonutility 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: 1989-1998: Energy Information Administration (EIA), Form
EIA-860B, "Annual Electric Generator Report-Nonutility" and predecessor form. 1999 and 2000: EIA, Form EIA-900, "Monthly Nonutility Power Report." 2001 and 2002: EIA, Form EIA-906, "Power Plant Report." Forecast Values: Derived from EIA's Short-Term Integrated Forecasting System. See related note on page 79 (Note 9).

propane, methanol, liquid byproducts, oil waste, sludge oil, and tar oil.

Petroleum coke is converted at 5 barrels per short ton.

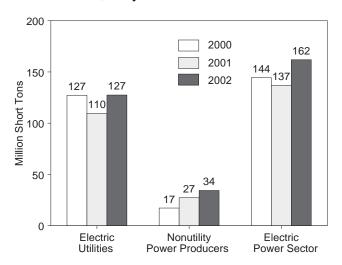
d Natural gas only.

e Data for 1989-1991 were collected for facilities with capacities of 5 megawatts or more. In 1992, the threshold was lowered to include facilities with capacities of 1 megawatt or more.

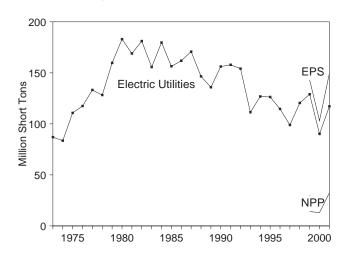
R=Revised. NA=Not available. E=Estimate. F=Forecast.

Figure 7.5 **Electric Power Sector Stocks of Coal and Petroleum**

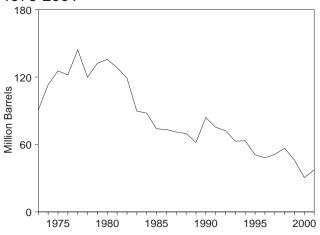
Coal Stocks, May



Coal Stocks, 1973-2001



Petroleum Total Stocks at Electric Utilities, 1973-2001

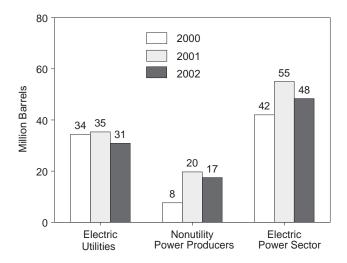


EPS=Electric Power Sector. NPP=Nonutility Power Producers.

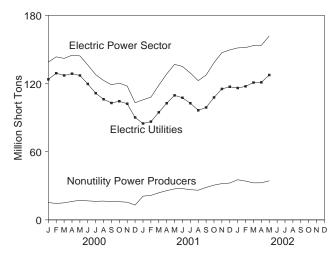
Notes: • Data are for fuels available to produce electricity; they may include some fuels available to produce useful thermal output at cogeneration plants.

Petroleum includes petroleum coke, which is converted to liquid units at 5

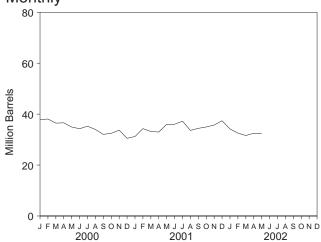
Petroleum Liquids Stocks, May



Coal Stocks, Monthly



Petroleum Total Stocks at Electric Utilities, Monthly



barrels per short ton. . Because vertical scales differ, graphs should not be compared.
Web Page: http://www.eia.doe.gov/emeu/mer/elect.html.
Source: Table 7.9.

Table 7.9 Electric Power Sector Stocks of Coal and Petroleum

		Coal					Petrol	eum	n				
		Namodilitor	Total		Electric	Utilities		Nonutili	ty Power Pro	ducers	Total		
	Electric Utilities	Nonutility Power Producers	Electric Power Sector	Heavy Oil ^a	Light Oil ^b	Petroleum Coke ^c	Total ^c	Liquids	Petroleum Coke ^c	Total ^c	Electric Power Sector		
	Tho	ousand Short	Tons	Thousar	nd Barrels	Thousand Short Tons	Thousand Barrels	Thousand Barrels	Thousand Short Tons	Thousand Barrels	Thousand Barrels		
1973 Total	86,967	NA	NA	79,121	10,095	312	90,776	NA	NA	NA	NA		
1974 Total	83,509	NA	NA	97,718	15,199	35	113,091	NA	NA	NA	NA		
1975 Total	110,724	NA	NA	108,825	16,432	31	125,413	NA	NA	NA	NA		
1976 Total	117,436 133,219	NA NA	NA NA	106,993 124,750	14,703 19,281	32 44	121,857 144,252	NA NA	NA NA	NA NA	NA NA		
1978 Total	128,225	NA NA	NA NA	102,402	16,386	198	119,778	NA NA	NA NA	NA NA	NA NA		
1979 Total	159.714	NA	NA	111,121	20,301	183	132,338	NA	NA	NA	NA NA		
1980 Total	183,010	NA	NA	105,351	30,023	52	135,635	NA	NA	NA	NA		
1981 Total	168,893	NA	NA	102,042	26,094	42	128,345	NA	NA	NA	NA		
1982 Total	181,132	NA	NA	95,515	23,369	41	119,090	NA	NA	NA	NA		
1983 Total	155,598	NA	NA	70,573	18,801	55	89,652	NA	NA	NA	NA		
1984 Total 1985 Total	179,727 156,376	NA NA	NA NA	68,503 57,304	19,116 16,386	50 49	87,870 73,933	NA NA	NA NA	NA NA	NA NA		
1986 Total	161,806	NA	NA NA	56,841	16,269	40	73,313	NA NA	NA NA	NA	NA NA		
1987 Total	170,797	NA	NA	55,069	15,759	51	71,084	NA NA	NA	NA	NA NA		
1988 Total	146,507	NA	NA	54,187	15,099	86	69,714	NA	NA	NA	NA		
1989 Total	135,860	NA	NA	47,446	13,824	105	61,795	NA	NA	NA	NA		
1990 Total	156,166	NA	NA	67,030	16,471	94	83,970	NA	NA	NA	NA		
1991 Total	157,876	NA	NA	58,636	16,357	70	75,343	NA	NA	NA	NA		
1992 Total	154,130 111,341	NA NA	NA NA	56,135 46,769	15,714 15,674	67 89	72,183 62,889	NA NA	NA NA	NA NA	NA NA		
1993 Total 1994 Total	126,897	NA NA	NA NA	46,769	16,644	69	63,331	NA NA	NA NA	NA NA	NA NA		
1995 Total	126,304	NA	NA NA	35,102	15,392	65	50,821	NA NA	NA NA	NA	NA NA		
1996 Total	114.623	NA	NA	32,473	15,216	91	48,146	NA	NA	NA	NA		
1997 Total	98,826	NA	NA	33,336	15,456	469	51,138	NA	NA	NA	NA		
1998 Total	120,501	NA	NA	37,447	16,343	559	56,586	NA	NA	NA	NA		
1999 Year	129,041	14,050	143,091	27,763	16,549	355	46,089	8,666	NA	NA	NA		
2000 January	123,661	15,233	138,894	21,678	14,655	297	37,816	6,710	NA	NA	NA		
February	129,055	14,446	143,501	22,055	15,048	195	38,076	6,611	NA	NA	NA		
March	127,130 128.669	14,983 16,235	142,113 144,904	20,966 21.135	14,643 14.698	171 150	36,462 36,584	6,587 7,336	NA NA	NA NA	NA NA		
April May	128,669	17,240	144,904	20,169	14,698	113	36,584	7,336 7,621	NA NA	NA NA	NA NA		
June	119,634	16,719	136,353	R 19,133	14,693	87	R 34,261	9,344	NA	NA	NA		
July	111,494	16,317	127,811	20,136	14,579	108	35,253	12,470	NA	NA	NA		
August	106,201	16,546	122,746	18,759	14,419	157	33,964	11,383	NA	NA	NA		
September	102,876	16,020	118,896	17,265	13,780	199	32,039	11,784	NA	NA	NA		
October	104,422	15,980	120,402	17,302	13,932	247	32,470	12,365	NA	NA	NA		
November December	102,227 90,115	15,537 13,001	117,765 103,117	18,451 R 16,915	14,020 12,655	245 186	33,694 R 30,502	12,701 11,089	NA NA	NA NA	NA NA		
2004	04.005	00.070	405 704		44.000	200	24.000	45 500	NIA	NIA	NIA		
2001 January February	84,825 86.462	20,876 21,545	105,701 108.007	15,283 18.060	14,922 15.447	200 156	31,202 34.287	15,502 16.557	NA NA	NA NA	NA NA		
March	94,644	23,831	118,476	17,708	14,704	155	33,185	15,105	NA NA	NA	NA NA		
April	102,626	25,751	128,377	17,646	14,622	140	32,971	16,411	NA	NA	NA		
May	109,595	27,276	136,871	20,916	14,404	130	35,970	19,700	NA	NA	NA		
June	107,452	27,555	135,007	19,841	14,957	246	36,027	19,264	NA	NA	NA		
July	102,664	26,537	129,202	21,130	14,950	232	37,238	19,886	NA	NA	NA		
August	96,440	26,106	122,546	17,819	14,794	200	33,612	16,703	NA	NA	NA		
September October	98,915 107.745	28,536 30,588	127,451 138.333	17,980 18.269	14,848 14,909	318 353	34,415 34.941	18,473 20.098	NA NA	NA NA	NA NA		
November	115,250	31,936	147,186	18,859	15,143	341	35,709	20,096	NA NA	NA NA	NA NA		
December	117,150	32,420	149,570	20,562	15,312	300	37,376	20,856	NA	NA	NA		
2002 January	116,032	35,332	151,364	19,623	12,913	326	34,165	22,762	NA	NA	NA		
February	R 117,506	R 34,114	R 151,620	R 18,233	R 13,006	R 259	R 32,535	R 20,980	NA	NA	NA		
2002 January	KF 120,835	RF 32,580	RF 153,415	RF 17,214	RF 12,609	F 355	RF 31,598	RF 16,869	NA	NA	NA		
April	'' 121,039	RF 32,635	RF 153,673	RF 18,236	RF 12,578	^F 332 ^F 316	RF 32,474	RF 17,429	NA	NA	NA		
May	127,475	F 34,370	^F 161,846	F 18,422	F 12,461	. 316	F 32,464	F 17,469	NA	NA	NA		

EIA-900 are not included. Due to restructuring of the electric power sector, the to restrict the sale of generation assets is resulting in reclassification of plants from electric utility to nonutility 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 end of section. Forecast values are derived from the Energy Information Administration's Short-Term Integrated Forecasting System. See related note on page 79 (Note 9).

^a For 1973-1979, steam plant stocks of petroleum; for 1980 forward, fuel oil nos. 5 and 6 (and small amounts of fuel oil no. 4).

^b For 1973-1979, gas turbine and internal combustion plant stocks of petroleum; for 1980 forward, fuel oil nos. 1 and 2 (and small amounts of kerosene and jet fuel).

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

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

Notes: Stocks are at end of period. Data are for fuels available to produce electricity; they may include some fuels available to produce useful thermal output at cogeneration plants. Nonutility facilities that are not required to report on Form

Sources for Table 7.1, Imports and Exports of Electricity

1973-September 1977—Unpublished Federal Power Commission data.

October 1977-1980—Unpublished Economic Regulatory Administration (ERA) data.

1981—DOE, Office of Energy Emergency Operations, "Report on Electric Energy Exchanges with Canada and Mexico for Calendar Year 1981," April 1982 (revised June 1982).

1982 and 1983—DOE, ERA, *Electricity Exchanges Across International Borders*.

1984-1986—DOE, ERA, Electricity Transactions Across International Borders.

1987 and 1988—DOE, ERA, Form ERA-781R, "Annual Report of International Electrical Export/Import Data." 1989—DOE, Fossil Energy, Form FE-781R, "Annual Report of International Electrical Export/Import Data." 1990-1998—Mexico's data: DOE, Fossil Energy, Office of Fuels Programs, Form FE-781R, "Annual Report of International Electrical Export/Import Data." Canada's data (metered energy, firm and interruptible): the National Energy Board of Canada.

1999 forward—EIA estimates based on preliminary data from DOE, Fossil Energy, and actual data from the National Energy Board of Canada.

Sources for Table 7.3

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

October 1977-1979—Federal Energy Regulatory Commission (FERC), Form FPC-4, "Monthly Power Plant Report."

1980-1989—Energy Information Administration (EIA), *Electric Power Monthly*, March issues, and (for small components) EIA, Form EIA-759, "Monthly Power Plant Report" and predecessor form. 1990-2000—EIA, *Electric Power Monthly*, October 2001, Tables 4 and 5, and (for small components) EIA, Form EIA-759, "Monthly Power Plant Report."

2001—EIA, *Electric Power Monthly*, May 2002, Tables 4 and 5, and (for small components) EIA, Form EIA-906, "Power Plant Report."

Sources for Table 7.5

Electric Utilities

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

1984-1989—EIA, Form EIA-861, "Annual Electric Utility Report.

1990 forward—EIA, Electric Power Monthly, May 2002. Table 44.

Nonutility Power Producers

1989-1999—EIA, Form EIA-860B, "Annual Electric Generator Report--Nonutility" and predecessor form. 2000—Derived from EIA's Short-Term Integrated Forecasting System. See related note on page 79 (Note 9).

Sources for Table 7.9

Electric Utilities

1973-September 1977—FPC, Form FPC-4, "Monthly Power Plant Report."

October 1977-1979—FERC, Form FPC-4 "Monthly Power Plant Report."

1980-1989—EIA, *Electric Power Monthly*, March issues.

1990 forward—EIA, *Electric Power Monthly*, May 2002, Table 21.

Nonutility Power Producers

1999 forward—EIA, *Electric Power Monthly*, May 2002, Table 72.

Section 8. Nuclear Energy

U.S. nuclear electricity net generation during May 2002 was 63 net terawatthours (billion kilowatthours) of electricity, 2 percent higher than in May 2001. Nuclear units generated at an average capacity factor of 85.9 percent, 1.4 percentage points higher than the capacity factor in May 2001.

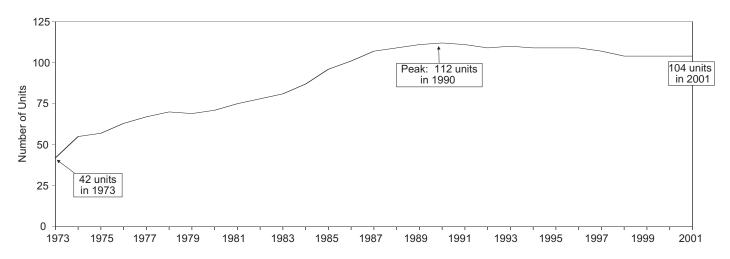
On May 31, 2002, there were 104 operable nuclear generating units in the United States, with a collective net summer capability of 97.9 million kilowatts of electricity. Of the 104 operable units, 1 unit generated no

electricity during the month because of maintenance, refueling, or repair outage, and 65 units reported operating at 90 percent of capacity or more. Of these 65 units, 25 operated at 100 percent or greater (based on net summer capability).

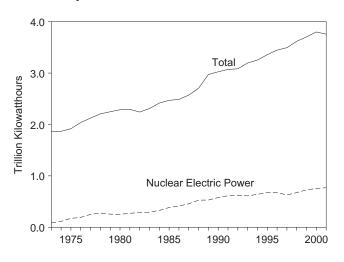
In addition, there were three other units with construction permits, but construction for all three units has been halted. Their combined design capacity is 3.6 million kilowatts.

Figure 8.1 Nuclear Power Plant Operations

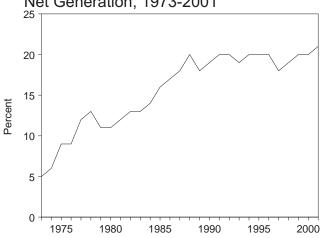
Operable Units, End of Year, 1973-2001



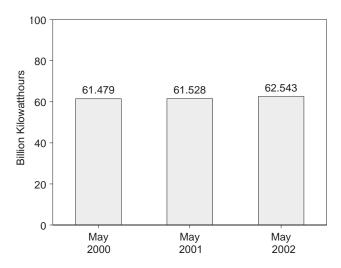
Electricity Net Generation, 1973-2001



Nuclear Share of Electricity Net Generation, 1973-2001

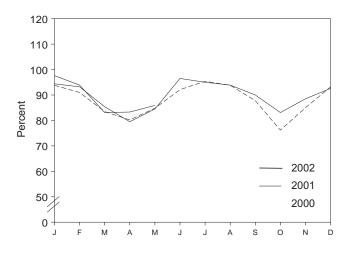


Nuclear Electricity Net Generation



Notes: • Includes all units that contributed power to the commercial grid whether they were owned by an electric utility or a nonutility power plant. See Note 1 at end of section for additional information. • Because vertical scales

Capacity Factor, Monthly



differ, graphs should not be compared. Web Page: http://www.eia.doe.gov/emeu/mer/nuclear.html. Sources: Tables 7.1, 8.1, and 8.2.

Table 8.1 Nuclear Power Plant Operations

	Nuclear Electricity Net Generation	Nuclear Share of Electricity Net Generation	Net Summer Capability of Operable Units ^{a,b}	Capacity Factor [©]
	Million Kilowatthours	Percent	Million Kilowatts	Percent
73 Year	83,479	4.5	22.683	53.5
74 Year	113,976	6.1	31.867	47.8
75 Year	172,505	9.0	37.267	55.9
76 Year	191,104	9.4	43.822	54.7
77 Year	250,883	11.8	46.303	63.3
78 Year	276,403	12.5	50.824	64.5
79 Year	255,155	11.4	49.747	58.4
			51.810	56.3
80 Year	251,116	11.0		
81 Year	272,674	11.9	56.042	58.2
82 Year	282,773	12.6	60.035	56.6
83 Year	293,677	12.7	63.009	54.4
84 Year	327,634	13.6	69.652	56.3
85 Year	383,691	15.5	79.397	58.0
86 Year	414,038	16.6	85.241	56.9
87 Year	455,270	17.7	93.583	57.4
88 Year	526,973	19.5	94.695	63.5
89 Year	d 529,402	d 17.8	^d 98.179	d 62.2
90 Year	576,974	19.1	99.642	66.0
91 Year	612,642	19.9	99.608	70.2
92 Year	618,841	20.1	99.004	70.9
93 Year	610,367	19.1	99.060	70.5
94 Year	640,492	19.7	99.148	73.8
95 Year	673,402	20.1	99.515	77.4
96 Year	674,729	19.6	100.784	76.2
97 Year	628,644	18.0	99.716	71.1
98 Year	673,702	18.6	97.070	78.2
99 Year	728,254	19.7	97.411	85.3
00 January	68,013	21.0	97.411	93.8
February	61,688	21.3	97.411	91.0
March	60,494	20.5	97.411	83.5
April	56,252	20.2	97.411	80.2
May	61,479	19.7	97.411	84.8
June	64,595	19.5	97.411	92.1
July	69,171	19.6	97.411	95.4
August	67,954	18.5	97.411	93.8
September	61,549	19.3	97.411	87.8
October	55,240	18.5	97.411	76.2
November	59,579	20.0	97.411	85.0
December	67,881	20.2	97.860	93.2
Year	753,893	19.8	97.860	88.1
01 January	68,705	20.5	97.860	94.4
February	61,270	21.4	97.860	93.2
March	62,140	20.5	97.860	85.4
April	55,992	19.9	97.860	79.5
May	61,528	20.2	97.860	84.5
June	68,022	20.6	97.860	96.5
July	69,163	19.2	97.860	95.0
August	68,386	18.4	97.860	93.9
September	63,381	20.6	97.860	90.0
October	60,484	20.5	97.860	83.1
November	62,338	22.4	97.860	88.5
December	67,419	22.2	97.860	92.6
Year	768,826	20.5	97.860 97.860	89.7
	,	_***	21.000	••••
02 January	71,057	22.3	97.860	97.6
February	^R 61,738	22.1	97.860	^R 93.9
March	RF 61,113	RF 20.6	97.860	83.1
April	RF 56,774	RF 20.6	97.860	R 83.3
May	F 62,543	F 21.2	97.860	85.9
5-Month Total	313,224	21.4	97.860	88.9
	•			
01 5-Month Total	309,634	20.5	97.860	87.3
00 5-Month Total	307,925	20.5	97.411	86.7

The performance data shown in this table are based on a universe of reactor units that differs in some respects from the reactor

universe used to profile the nuclear power industry in Table 8.2. See Note 1 at end of section for further discussion. Nuclear electricity net generation totals may not equal sum of components due to independent Geographic coverage is the 50 States and the District of

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

Sources: See end of section.

b For the definition of "Net Summer Capability," see Note 2(a) at end of section.

^c For an explanation of the method of calculating the capacity factor,

see Note 2 at end of section.

d Beginning in 1989, includes nonutility facilities.

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

Table 8.2 Nuclear Generating Units

	Orders ^a	Construction Permits ^b	Low Power Operating Licenses ^c	New Operable Units ^d	Shutdowns ^e	Total Operable Units ^f	Cancellations ⁹	Cumulative Cancellations
973 Year	42	14	12	15	0	42	0	7
974 Year	28	23	14	15	2	55	9	16
975 Year	4	9	3	2	0	57	13	29
976 Year	3	9	7	7	1	63	1	30
977 Year	4	15	4	4	Ô	67	10	40
978 Year	2	13	3	4	1	70	13	53
79 Year	0	2	0	0	1	69	6	59
980 Year	0	0	5	2	0	71	15	74
981 Year	0	0	3	4	0	75	9	83
982 Year	0	0	6	4	1	78	18	101
983 Year	0	0	3	3	0	81	6	107
984 Year	0	0	7	6	0	87	6	113
985 Year	0	0	7	9	0	96	2	115
986 Year	0	0	7	5	0	^h 101	2	117
987 Year	0	0	6	8	2	107	0	117
988 Year	0	0	1	2	0	109	3	120
)89 Year	0	0	3	4	2	111	0	120
990 Year	0	0	1	2	1	112	1	121
991 Year	0	0	0	0	1	111	0	121
992 Year	0	0	0	0	2	109	0	121
993 Year	0	0	1	1	0	110	0	121
994 Year	0	0	0	0	1	109	1	122
995 Year	0	0	1	0	0	109	2	124
996 Year	0	0	0	1	1	109	0	124
997 Year	0	0	0	0	2	107	0	124
998 Year	0	0	0	0	3	104	0	124
999 Year	0	0	0	0	0	104	0	124
000 January	0	0	0	0	0	104	0	124
February	0	0	0	0	0	104	0	124
March	0	0	0	0	0	104	0	124
April	0	0	0	0	0	104	0	124
May	0	0	0	0	0	104	0	124
June	0	0	0	0	0	104	0	124
July	0	0	0	0	0	104	0	124
August	0	0	0	0	0	104	0	124
September	0	0	0	0	0	104	0	124
October	0	0	0	0	0	104	0	124
November	0	0	0	0	0	104	0	124
December	0	0	0	0	0	104	0	124
Year	0	0	0	0	0	104	0	124
001 January	0	0	0	0	0	104	0	124
February	Ö	0	Ö	0	Ō	104	0	124
March	Ö	0	Ö	0	0	104	0	124
April	Ö	Ö	Ö	Õ	Ö	104	Õ	124
May	Ö	0	Ö	0	Ō	104	0	124
June	Ö	0	Ö	Ö	Ō	104	0	124
July	0	0	0	0	0	104	0	124
August	Ö	0	Ō	Ō	0	104	0	124
September	Ö	Ö	Ö	Ö	Õ	104	Ö	124
October	Ö	0	Ō	Ō	0	104	0	124
November	Ö	0	0	Ō	0	104	0	124
December	0	0	0	0	0	104	0	124
Year	0	0	0	0	0	104	0	124
002 January	0	0	0	0	0	104	0	124
February	0	0	0	0	0	104	0	124
March	Ö	0	Ō	0	0	104	0	124
April	0	0	0	0	0	104	0	124

^a Placement of an order by a utility or government agency for a nuclear

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

Sources: See end of section.

steam supply system.

b Issuance by regulatory authority of a permit, or equivalent permission, to begin construction. Numbers reflect permits issued in a given year, not extant

permits.

C Issuance by regulatory authority of license, or equivalent permission, to

conduct testing but not to operate at full power.

d Issuance by regulatory authority of full-power operating license, or equivalent permission. Units generally did not begin immediate operation. See Note 1 at end of section.

Ceased operating permanently, irrespective of intent.

f Total of units holding full-power licenses, or equivalent permission to operate, at the end of the period. See Note 1 at end of section.

^g Cancellation by utilities of ordered units. Does not include three units (Bellefonte 1 and 2 and Watts Bar 2) where construction has been stopped

indefinitely.

h Includes Browns Ferry 1, which was shut down in 1985. The unit is defueled but is still fully licensed. 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.

Note: This table covers all units that contributed power to the commercial grid whether or not they were owned by an electric utility. See Note 1 at end of section for additional information.

Nuclear Energy Notes

1. In 1997 EIA undertook a major revision of the data categories in Table 8.2 to make them more relevant to current conditions and trends in the U.S. commercial nuclear electric power industry. To acquire the data for the revised categories it was necessary to develop a reactor unit database employing different sources than those used previously for Table 8.2 and still used for Table 8.1. Because of differences in definitions and tally protocols, the year-by-year tallies of operable reactors in the two databases diverge in some years, although this divergence does not change the overall trends.

The data in Table 8.2 apply to commercial nuclear power units, which means that the units contributed power to the commercial electricity grid whether or not they were owned by an electric utility. A total of 259 units ever ordered was identified. (Many of the orders were placed before 1973 and thus do not appear in the table. Annual data on orders and other characteristics from 1953 forward can be found in EIA's *Annual Energy Review 2000*, Tables 9.1 and 9.2.) Although most orders were placed by electric utilities, several units are or were ordered, owned, and operated wholly or in part by the Federal government, including BONUS (Boiling Nuclear Superheater Power Station), Elk River, Experimental Breeder Reactor 2, Hallam, Hanford N, Piqua, and Shippingport.

A reactor is generally defined as operable in Table 8.2 while it possessed a full-power license from the Nuclear Regulatory Commission or its predecessor the Atomic Energy Commission, or equivalent permission to soperate, 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 is defueled, while the other units were idle for several years, restarting in 1991, 1995, 1988, and 1988, respectively. Unit 1 is now scheduled to resume operation in 2007. 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 treated as operable during 1989 and shut down in 1990, because counting it as operable and shut down in the same year would introduce a statistical discrepancy in the tallies. 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.

- **2.** Capacity: Nuclear generating units may have more than one type of net capacity rating, including the following:
- (a) Net Summer Capability—The steady hourly output that generating equipment is expected to supply to system load, exclusive of auxiliary power, as demonstrated by test at the time of summer peak demand. Auxiliary power of a typical nuclear power plant is about 5 percent of gross generation.
- (b) Net Design Capacity or Net Design Electrical Rating (DER)—The nominal net electrical output of a unit, specified by the utility and used for plant design.

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

Sources for Table 8.1

Nuclear Electricity Net Generation and Nuclear Share of Electricity Net Generation— See Table 7.2 for actual data. The forecast value is derived from EIA's Short-Term Integrated Forecasting System. See related note on page 79 (Note 9).

Net Summer Capability of Operable Units—1973-1982—Compiled from various sources, primarily DOE, Office of Nuclear Reactor Programs, "U.S. Central Station Nuclear Electric Generating Units: Significant Milestones."

1983 forward—Energy Information Administration (EIA), Form EIA-860, "Annual Electric Generator Report," and monthly updates as appropriate.

Capacity Factor—EIA, Office of Coal, Nuclear, Electric and Alternate Fuels for actual data. The forecast value is derived from EIA's Short-Term Integrated Forecasting System. See related note on page 79 (Note 9).

Sources for Table 8.2

Orders—Energy Information Administration, Commercial Nuclear Power 1991, Appendix E, September 1991; Nuclear Energy Institute, Historical Profile of U.S. Nuclear Power Development, 1988 edition; U.S. Atomic Energy Commission, 1973 Annual Report to Congress, Volume 2, Regulatory Activities; various utilities.

Construction Permits—Nuclear Regulatory Commission, *Information Digest*, 1997 edition, Appendix A; Nuclear Energy Institute, *Historical Profile of U.S. Nuclear Power Development*, 1988 edition; various utility, Federal, and contractor officials.

Low-Power Operating Licenses—Nuclear Energy Institute, *Historical Profile of U.S. Nuclear Power Development*, 1988 edition; U.S. Department of Energy, *Nuclear Reactors Built, Being Built, and Planned*:

1995; various utility, Federal, and contractor officials. **New Operable Units**—Nuclear Regulatory Commission, *Information Digest*, 1997 edition, Table 11 and Appendices A and B; various utility, Federal, and contractor officials.

Shutdowns—Energy Information Administration, Commercial Nuclear Power 1991, Appendix E; Nuclear Regulatory Commission, Information Digest, 1997 edition, Appendix B; U.S. Department of Energy, Nuclear Reactors Built, Being Built, and Planned: 1995; Tennessee Valley Authority officials; various Nuclear Regulatory Commission documents.

Total Operable Units—Commercial reactors fully licensed to operate, excluding permanent shutdowns. Cancellations—Energy Information Administration, Commercial Nuclear Power 1991, Appendix E, September 1991; Nuclear Regulatory Commission, Information Digest, 1997 edition, Appendix C; and Nuclear Energy Institute, Historical Profile of U.S. Nuclear Power Development, 1988 edition.

Section 9. Energy Prices

Crude Oil. The average price of domestic crude oil at the wellhead was \$23.02 per barrel in May 2002, 4 percent below the level of May 2001. The refiner acquisition cost of imported crude oil in May 2002 was \$24.29 per barrel, 1 percent below the May 2001 level. The average cost of domestic crude oil in May 2002 was \$25.78, 2 percent less than the May 2001 average.

Motor Gasoline. The national city average retail price of unleaded regular gasoline at all types of stations was \$1.40 per gallon in June 2002, 14 percent lower than the price in June 2001. The price of unleaded premium gasoline averaged \$1.61 in June 2002, 15 percent lower than the price in June 2001.

Residual Fuel Oil. The average price, excluding taxes, of residual fuel oil sold to end users in May 2002 was 58 cents per gallon, 4 percent higher than the previous month's price and 8 percent higher than the May 2001 average. The average resale price, excluding taxes, of residual fuel oil in May 2002 was 54 cents, 5 percent higher than the April 2002 price and 8 percent higher than the price 1 year earlier.

Aviation Fuel. The average price, excluding taxes, of aviation gasoline sold to end users in May 2002 was \$1.37 per gallon, 3 percent higher than the previous month's average but 6 percent lower than the May 2001 average. The average price, excluding taxes, of kerosene-type jet fuel sold to end users in May 2002 was 71 cents per gallon, 1 percent higher than the previous month's average price but 16 percent lower than the May 2001 average price.

No. 2 Distillate Fuel Oil. The May 2002 national average price, excluding taxes, of heating oil sold to residential customers was \$1.09 per gallon, 2 percent lower than the April 2002 price and 13 percent lower than the May 2001 price. The average price of No. 2 fuel oil sold to all end users was 71 cents per gallon in May 2002, 2 percent lower than the April 2002 price and 21 percent lower than the price 1 year earlier.

Electricity. The average price of electricity sold by electric utilities to all ultimate consumers in the United States in February 2002 was 6.96 cents per kilowatthour, 1 percent higher than the February 2001 mean price. The price of electricity sold to residential consumers in February 2002 averaged 8.14 cents per kilowatthour, 1 percent higher than the February 2001 price. The price of electricity sold to commercial consumers averaged 7.62 cents per kilowatthour in February 2002, 1 percent higher than the February 2001 price. The price of electricity sold to other consumers was 6.53 cents per kilowatthour, 3 percent higher than the February 2001 price. The price of electricity sold to industrial users in February 2002 averaged 4.73 cents per kilowatthour, 3 percent lower than the price 1 year earlier.

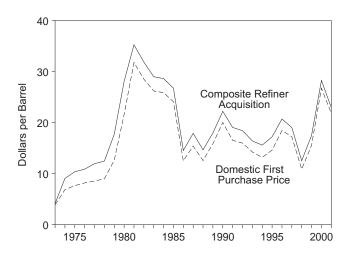
Beginning with January 1986, new series of national average price estimates were based on a statistically derived sample of both publicly and privately owned electric utilities. Previously, average price estimates were derived from selected privately owned electric utilities and were not national averages.

Natural Gas. The average wellhead price of natural gas for April 2002 was estimated as \$3.02 per thousand cubic feet, 42 percent lower than the April 2001 price.

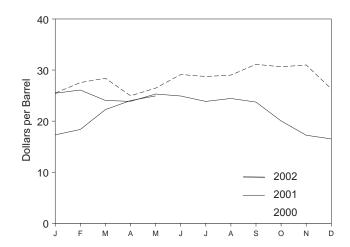
The average price of natural gas delivered to electric utility plants was \$3.39 per thousand cubic feet in January 2002 (latest date for which data are available), 64 percent lower than the January 2001 price. The average price of natural gas used by residential consumers in April 2002 was \$7.56 per thousand cubic feet, 26 percent lower than the April 2001 price. The average price of natural gas used by commercial consumers in April 2002 was \$6.62 per thousand cubic feet, 25 percent lower than the April 2001 price. The average price of natural gas used by industrial consumers in April 2002 was \$4.01 per thousand cubic feet, 35 percent below the April 2001 price.

Figure 9.1 Petroleum Prices

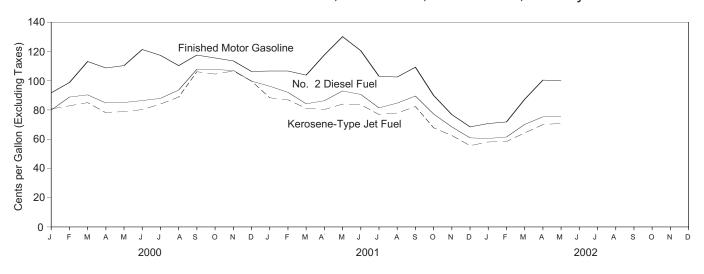
Crude Oil Prices, 1973-2001



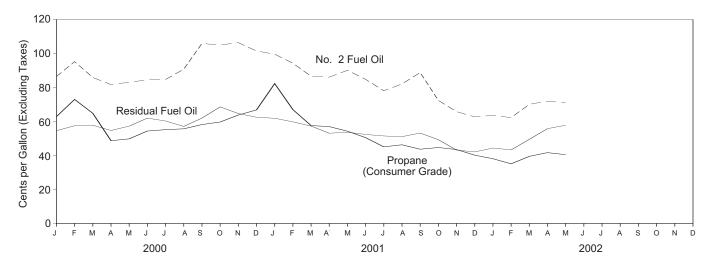
Composite Refiner Acquisition Cost, Monthly



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)

				Re	efiner Acquisition Co	sta
	Domestic First Purchase Price ^b	F.O.B. Cost of Imports ^c	Landed Cost of Imports ^d	Domestic	Imported	Composite
973 Average	3.89	^e 5.21	^e 6.41	E 4.17	^E 4.08	^E 4.15
74 Average	6.87	10.91	12.32	7.18	12.52	9.07
75 Average	7.67	11.18	12.70	8.39	13.93	10.38
76 Average	8.19	12.15	13.32	8.84	13.48	10.89
	8.57	13.24	14.36	9.55	14.53	11.96
77 Average 78 Average	9.00	13.29	14.35	10.61	14.57	12.46
79 Average	12.64	20.07	21.45	14.27	21.67	17.72
80 Average	21.59	32.37	33.67	24.23	33.89	28.07
81 Average	31.77	35.15	36.47	34.33	37.05	35.24
82 Average	28.52	32.02	33.18	31.22	33.55	31.87
83 Average	26.19	27.81	28.93	28.87	29.30	28.99
84 Average	25.88	27.60	28.54	28.53	28.88	28.63
85 Average	24.09	25.84	26.67	26.66	26.99	26.75
86 Average	12.51	12.52	13.49	14.82	14.00	14.55
87 Average	15.40	16.69	17.65	17.76	18.13	17.90
88 Average	12.58	13.25	14.08	14.74	14.56	14.67
89 Average	15.86	16.89	17.68	17.87	18.08	17.97
90 Average	20.03	20.37	21.13	22.59	21.76	22.22
91 Average	16.54	16.89	18.02	19.33	18.70	19.06
92 Average	15.99	16.77	17.75	18.63	18.20	18.43
93 Average	14.25	14.71	15.72	16.67	16.14	16.41
94 Average	13.19	14.18	15.18	15.67	15.51	15.59
95 Average	14.62	15.69	16.78	17.33	17.14	17.23
96 Average	18.46	19.32	20.31	20.77	20.64	20.71
97 Average	17.23	16.94	18.11	19.61	18.53	19.04
98 Average	10.87	10.76	11.84	13.18	12.04	12.52
99 Average	15.56	16.47	17.23	17.90	17.26	17.51
00 January	23.53	24.56	25.61	25.79	25.29	25.49
February	25.48	26.51	27.01	27.80	27.39	27.55
March	26.19	25.71	26.94	29.53	27.70	28.41
April	23.20	23.39	24.72	26.05	24.29	24.97
May	25.58	25.95	26.71	26.62	26.35	26.46
June	27.62	27.73	28.56	29.46	28.91	29.13
July	26.81	26.53	28.29	29.94	28.00	28.74
August	27.91	27.94	29.03	29.36	28.80	29.01
September	29.72	28.84	30.51	32.01	30.56	31.13
October	29.65	27.74	29.54	32.09	29.71	30.63
November	30.36	27.40	28.74	32.43	30.00	31.00
December	24.46	22.79	24.77	27.90	25.19	26.31
Average	26.72	26.27	27.53	29.11	27.70	28.26
01 January	24.58	22.49	24.17	26.84	24.49	25.46
February	25.27	23.11	24.31	27.67	24.97	26.09
March	23.02	20.96	22.88	25.64	23.01	24.05
April	23.41	21.89	23.13	25.12	22.99	23.87
May	24.06	22.85	24.19	26.37	24.63	25.31
June	23.43	22.73	23.82	26.30	23.95	24.92
July	22.94	21.37	22.84	25.27	22.83	23.86
August	23.08	22.00	23.30	25.44	23.77	24.44
September	22.37	20.84	22.16	25.48	22.51	23.73
October	18.73	17.18	18.40	21.79	18.76	20.04
November	16.49	15.05	16.25	18.99	16.06	17.24
December	15.54	15.25	16.05	17.34	15.95	16.52
Average	21.84	20.49	21.83	24.34	22.01	22.96
02 January	15.89	16.05	17.25	17.85	16.93	17.31
February	16.92	17.68	19.16	18.70	18.13	18.37
March	20.04	R 21.64	R 22.22	21.57	22.78	22.26
April	R 22.14	R 23.03	R 24.17	R 24.27	R 23.87	R 24.03

^a See Note 4 at end of section.

See Note 3 at end of section.
 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.

b See Note 1 at end of section.
c See Note 2 at end of section.
d See Note 3 at end of section.
d See Note 3 at end of section.

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

(Dollars per Barrel)

			Se	elected Cou	ntries			D		
	Angola	Colombia	Mexico	Nigeria	Saudi Arabia	United Kingdom	Venezuela	Persian Gulf Nations ^a	Total OPEC ^b	Total Non-OPEC
1973 Average ^c 1974 Average	W 11.87	W W	NA W	7.81 12.44	3.25 10.17	NA NA	5.39 10.71	3.68 10.60	5.43 11.33	4.80 9.59
1975 Average 1976 Average	10.97 12.02	}d∫	11.44 12.22	11.82 13.08	10.87 11.62	NA W	11.04 11.39	10.88 11.65	11.34 12.23	10.62 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 1979 Average	13.32 19.85	{ d }	13.24 20.27	14.05 21.69	12.70 17.28	13.82 21.70	12.38 16.90	12.77 18.77	13.31 19.88	13.23 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 1983 Average	31.86 28.14	(d)	28.08 25.20	35.13 29.81	33.73 27.53	33.42 29.91	23.74 21.48	33.55 27.70	33.48 28.46	30.58 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 1987 Average	13.30 17.27	12.34 17.84	11.84 16.36	14.35 18.47	11.36 15.12	13.84 18.28	10.92 15.08	11.35 15.97	12.21 16.43	12.87 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 1991 Average	20.23 18.47	20.75 18.49	19.26 15.37	22.46 20.29	20.36 14.62	23.43 20.81	19.55 14.91	18.54 15.22	20.40 16.99	20.32 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 1995 Average	15.40 16.58	14.99 16.73	13.68 15.64	16.32 17.40	14.12 W	15.66 16.94	12.21 13.86	13.97 W	14.00 15.36	14.34 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 1998 Average	12.11 12.11	12.56 12.56	10.49 10.49	12.97 12.97	8.87 8.87	12.52 12.52	9.31 9.31	9.09 9.09	10.20 10.20	11.21 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 January	25.99	27.12	23.31	W	25.57	24.47	23.36	25.37	24.45	24.64
February March	27.71 27.89	29.56 29.43	26.25 25.37	29.07 26.09	23.73 23.64	26.22 27.76	24.93 23.92	24.46 23.17	25.89 24.30	26.98 26.70
April	22.72	25.40	21.91	24.34	27.64	23.62	22.73	25.39	23.92	23.03
May	28.36	26.50	25.27	28.85	24.31	25.91	25.12	24.53	25.71	26.07
June July	29.15 28.48	29.98 27.50	26.90 24.89	30.04 28.93	24.82 26.84	29.09 26.92	26.26 23.29	24.54 26.24	26.84 25.77	28.25 27.13
August	30.40	30.47	26.66	31.06	26.41	26.41	26.45	26.66	27.74	28.09
September	30.16 29.13	32.66 32.36	28.00 27.29	30.54 30.71	27.81 23.61	30.24 29.05	26.04 26.63	26.87 24.27	27.80 26.71	29.65 28.54
October November	30.27	32.24	27.29	31.92	22.10	30.91	24.08	22.74	25.43	28.80
December	24.96	25.66	21.46	25.45	21.65	24.80	20.98	21.63	22.07	23.34
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	21.35	26.46	20.55	26.16	21.15	20.78	21.99	22.87
February	25.69 22.98	27.06 23.63	21.39 18.81	26.82 24.70	21.35 20.46	W	20.43 19.12	21.60 20.43	22.39 20.84	23.71 21.08
March April	24.75	25.04	19.78	24.70 W	20.46	26.99	21.18	20.43	21.91	21.87
May	27.66	26.23	21.20	28.74	21.41	28.19	20.10	20.94	22.03	23.67
June	26.82 23.85	26.81 25.86	21.39 19.02	27.63 24.98	20.68 20.77	W 24.88	17.92 18.70	20.61 20.93	21.41 20.53	23.70 22.20
July August	23.65	25.23	20.56	24.96 25.78	19.24	24.00 W	19.67	20.93	20.53	22.63
September	24.03	22.78	20.82	24.60	15.69	23.81	17.17	16.30	18.69	22.36
October	19.70 17.49	20.40 18.44	16.45 14.32	20.29 19.02	14.43 14.99	20.48 W	14.76 11.90	14.55 14.30	15.92 14.06	18.13 15.70
November December	17.49	18.48	14.32	19.02	15.36	W	12.80	15.36	14.06	15.70
Average	23.35	24.25	18.89	24.83	19.14	23.51	18.03	19.12	19.81	21.04
2002 January	19.12	18.93	14.25	19.63	W	19.24	13.55	17.56	15.89	16.18
February March	18.76 R 22.65	19.37 23.88	15.91 20.21	20.70 24.39	21.20 R 23.41	W	14.84 R 19.30	19.88 ^R 23.12	17.65 ^R 21.49	17.70 ^R 21.74
April	R 24.19	R 25.57	R 22.40	R 25.66	R 22.94	W	R 20.02	R 23.20	R 22.46	R 23.39
May		26.11	22.88	W	22.50	24.52	20.27	22.39	21.98	23.66

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

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. and the District of Columbia. U.S. geographic coverage is the 50 States

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

Sources: See end of section.

Emirates.

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

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 Values for the current 2 months are preliminary.

Table 9.3 Landed Costs of Crude Oil Imports From Selected Countries

(Dollars per Barrel)

				Selected	Countries						
	Angola	Canada	Colombia	Mexico	Nigeria	Saudi Arabia	United Kingdom	Venezuela	Persian Gulf Nations ^a	Total OPEC ^b	Total Non-OPEC
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	(d)	W	13.16	11.63	NA	11.25	12.21	12.49	11.81
1975 Average	11.81	12.84	(12.61	12.70	12.50	NA	12.36	12.64	12.70	12.70
1976 Average	12.71 14.04	13.36 14.13	(d)	12.64 13.82	13.81 15.29	13.06 13.69	W 14.83	11.89 13.11	13.03 13.85	13.32 14.35	13.35 14.42
1977 Average 1978 Average	14.07	14.41	(d)	13.56	14.88	13.94	14.53	12.84	14.01	14.34	14.38
1979 Average	21.06	20.22	} d {	20.77	22.97	18.95	22.97	17.65	20.42	21.29	22.10
1980 Average	34.76	30.11	`w′	31.77	37.15	29.80	35.68	25.92	30.59	33.56	33.99
1981 Average	36.84	32.32	(d)	33.70	39.66	34.20	37.29	29.91	34.61	36.60	36.14
1982 Average	33.08	27.15	(d)	28.63	36.16	34.99	34.25	24.93	34.94	34.81	31.47
1983 Average	29.31	25.63	(d)	25.78	30.85	29.27	30.87	22.94	29.37	29.84	28.08
1984 Average	28.49	26.56	(d)	26.85	30.36	29.20	29.45	25.19	29.07	29.06	28.14
1985 Average	27.39	25.71	(d)	25.63	28.96	24.72	28.36	24.43	25.50	26.86	26.53
1986 Average	14.09	13.43	12.85	12.17	15.29	12.84	14.63	11.52	12.92	13.46	13.52
1987 Average	18.20	17.04	18.43	16.69	19.32	16.81	18.78	15.76	17.47	17.64	17.66
1988 Average	14.48	13.50	14.47	12.58	15.88	13.37	15.82	13.66	13.51	14.18	13.96
1989 Average	18.36	16.81	18.10 22.34	16.35 19.64	19.19 23.33	17.34	18.74 22.65	16.78	17.37 20.55	17.78 21.23	17.54
1990 Average 1991 Average	21.51 19.90	20.48 17.16	19.55	15.89	21.39	21.82 17.22	21.37	20.31 15.92	17.34	18.08	20.98 17.93
1992 Average	19.36	17.10	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 January	27.21	24.66	27.39	23.77	26.99	26.79	25.86	24.31	26.47	25.86	25.37
February	28.77	26.14	29.74	26.52	29.05	25.42	27.48	25.90	25.94	26.61	27.45
March	29.14	27.27	29.67	26.29	29.04	24.95	28.99	25.55	25.37	26.23	27.76
April	24.50	24.86	26.34	22.53	25.78	25.77	25.60	23.72	25.20	24.97	24.46
May	29.49 30.79	25.25 28.01	27.40 30.60	25.66 27.61	27.93 31.06	26.66 26.71	26.79 30.61	26.19 27.80	26.64 26.90	26.84 28.06	26.60 29.07
June July	30.79	27.98	29.40	25.75	31.14	27.81	30.57	25.21	27.68	27.96	28.69
August	32.41	28.09	30.34	27.25	31.59	28.37	29.27	28.16	28.17	29.00	29.06
September	32.46	29.94	33.84	28.94	32.63	30.03	31.95	28.33	29.77	30.13	30.90
October	31.87	28.32	33.68	28.10	33.10	27.47	31.06	28.54	27.97	29.06	30.08
November	32.80	26.91	33.36	27.76	34.02	25.69	32.93	26.34	26.61	27.86	29.74
December	27.05	23.47	28.12	21.91	27.77	24.52	28.86	23.13	24.64	24.82	24.72
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	21.53	28.37	23.79	28.27	23.04	23.81	24.29	24.03
February	27.48	22.47	28.71	21.61	28.74	23.24	29.12	22.15	23.18	24.04	24.62
March	24.87	21.62	26.21	19.55	27.40	22.47	26.29	21.13	22.42	23.17	22.48
April	26.63	21.39	26.71	19.57	27.01	22.68	26.45	22.53	22.35	23.33	22.87
May	28.58	22.63	27.83	21.22	29.33	22.86	28.27	21.91	22.65	23.77	24.73
June	28.40	22.53	28.86	21.34	29.31	22.61	26.91	20.35	22.20	23.21	24.42
July August	25.59 25.54	22.60 23.97	27.45 26.31	19.65 21.20	26.68 27.01	22.46 21.80	26.02 25.91	20.23 21.21	22.23 22.04	22.39 22.69	23.48 23.96
September	25.66	23.97	24.86	21.40	26.45	19.08	24.83	19.33	19.82	20.99	23.48
October	21.21	18.42	21.77	17.19	22.35	16.33	24.63	16.26	17.02	17.63	19.26
November	18.91	14.84	20.22	14.82	20.41	16.44	W	13.62	16.17	16.12	16.39
December	18.49	14.65	18.92	14.63	19.98	16.32	W	14.40	15.85	16.01	16.09
Average	25.10	20.72	25.88	19.36	26.53	21.00	25.38	19.81	20.76	21.54	22.17
2002 January	20.03	15.66	19.86	14.87	20.41	18.92	20.49	15.10	17.92	17.51	16.96
February	19.70	18.00	20.32	16.29	21.57	22.00	20.83	16.47	20.69	19.68	18.55
March	22.99	20.05	24.54	R 20.39	24.33	R 23.93	23.72	R 20.80	R 23.29	R 22.76	21.72
April	R 25.13	R 23.37	R 26.22	R 22.89	R 26.47	R 24.27	R 25.35	R 22.02	R 24.11	R 24.06	R 24.26
May	25.66	23.95	25.98	23.50	27.24	24.00	26.05	22.26	23.99	23.85	24.72

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

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

October 1973-September 1977: Federal Energy Form FEA-F701-M-0, "Transfer Pricing Report." Sources: October 1977-December 1977: Energy Information Administration (EIA), Form FEA-F701-M-0, "Transfer Pricing Report." 1978 forward: EIA, Petroleum Marketing Monthly, August 2002, Table 25.

Emirates.

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

^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

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

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

	Leaded Regular	Unleaded Regular	Unleaded Premium	All Types ^a
973 Average	38.8	NA	NA	NA
974 Average	53.2	NA NA	NA	NA
	56.7	NA NA	NA NA	NA
975 Average	59.0	61.4	NA NA	NA NA
976 Average				
977 Average	62.2	65.6	NA	NA 25.2
978 Average	62.6	67.0	NA	65.2
979 Average	85.7	90.3	NA	88.2
980 Average	119.1	124.5	NA	122.1
981 Average ^b	131.1	137.8	^c 147.0	135.3
982 Average	122.2	129.6	141.5	128.1
983 Average	115.7	124.1	138.3	122.5
984 Average	112.9	121.2	136.6	119.8
985 Average	111.5	120.2	134.0	119.6
986 Average	85.7	92.7	108.5	93.1
987 Average	89.7	94.8	109.3	95.7
988 Average	89.9	94.6	110.7	96.3
989 Average	99.8	102.1	119.7	106.0
990 Average	114.9	116.4	134.9	121.7
991 Average	NA	114.0	132.1	119.6
992 Average	NA	112.7	131.6	119.0
993 Average	NA	110.8	130.2	117.3
994 Average	NA NA	111.2	130.5	117.4
		114.7	133.6	120.5
995 Average	NA NA			
996 Average	NA	123.1	141.3	128.8
997 Average	NA	123.4	141.6	129.1
998 Average	NA	105.9	125.0	111.5
999 Average	NA	116.5	135.7	122.1
000 January	NA	130.1	148.6	135.6
February	NA	136.9	155.1	142.2
March	NA	154.1	172.3	159.4
April	NA	150.6	169.8	156.1
May	NA	149.8	168.2	155.2
June	NA	161.7	178.6	166.6
July	NA	159.3	177.3	164.2
August	NA	151.0	168.9	155.9
September	NA	158.2	176.4	163.5
October	NA	155.9	174.4	161.3
November	NA	155.5	173.8	160.8
December	NA	148.9	167.9	154.4
Average	NA	151.0	169.3	156.3
001 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 NA	172.9	193.4	181.2
June	NA 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
002 January	NA	113.9	132.3	120.9
February	NA 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

^a Also includes types of motor gasoline not shown separately.

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.

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 beauty.

premium is weighted more heavily.

^c Based on September through December data only.

NA=Not available.

Table 9.5 Refiner Prices of Residual Fuel Oil

	Sulfur Co	l Fuel Oil ntent Less al to 1 Percent	Sulfur	al Fuel Oil Content an 1 Percent	Ave	erage
	Sales for Resale	Sales to End Users	Sales for Resale	Sales to End Users	Sales for Resale	Sales to End Users
978 Average	29.3	31.4	24.5	27.5	26.3	29.8
979 Average	45.0	46.8	36.6	38.9	39.9	43.6
980 Average	60.8	67.5	47.9	52.3	52.8	60.7
981 Average	74.8	82.9	62.2	67.3	66.3	75.6
982 Average	69.5	74.7	57.2	61.1	61.2	67.6
983 Average	64.3	69.5	59.1	61.1	60.9	65.1
984 Average	68.5	72.0	63.9	65.9	65.4	68.7
985 Average	61.0	64.4	56.0	58.2	57.7	61.0
	32.8	37.2	28.9	31.7	30.5	34.3
986 Average						
987 Average	41.2	44.7	36.2	39.6	38.5	42.3
988 Average	33.3	37.2	27.1	30.0	30.0	33.4
989 Average	40.7	43.6	33.1	34.4	36.0	38.5
990 Average	47.2	50.5	37.2	40.0	41.3	44.4
991 Average	36.4	40.2	29.2	30.6	31.4	34.0
992 Average	35.1	38.9	28.6	31.2	30.8	33.6
993 Average	33.7	39.7	25.6	30.3	29.3	33.7
994 Average	34.5	40.1	28.7	33.0	31.7	35.2
995 Average	38.3	43.6	33.8	37.7	36.3	39.2
996 Average	45.6	52.6	38.9	43.3	42.0	45.5
997 Average	41.5	48.8	36.6	40.3	38.7	42.3
998 Average	29.9	35.4	26.9	28.7	28.0	30.5
999 Average	38.2	40.5	32.9	36.2	35.4	37.4
000 January	55.3	66.3	44.6	50.0	49.0	54.6
February	59.2	68.8	48.6	54.0	53.9	57.5
March	53.2	66.5	50.7	55.9	51.9	57.8
April	52.3	65.1	44.5	52.5	48.2	54.7
May	58.9	63.2	51.7	54.9	54.9	57.3
June	65.8	70.2	54.7	59.0	60.0	62.0
July	65.1	69.7	50.8	57.3	58.9	60.3
August	61.5	67.0	46.7	53.6	53.9	57.1
September	71.9	75.8	58.6	59.2	64.5	62.0
October	73.7	76.8	57.3	65.4	63.8	68.6
November	71.3	77.1	52.8	59.2	61.3	64.7
December	66.6	75.8	50.6	57.0	57.9	62.5
Average	62.7	70.8	51.2	56.6	56.6	60.2
001 January	64.5	73.1	48.5	56.2	55.6	61.9
February	61.9	68.4	49.5	55.2	54.9	59.8
March	57.2	66.1	47.8	52.8	51.4	57.3
April	57.3	63.8	41.8	48.8	48.0	53.1
May	58.2	63.4	44.2	50.1	49.8	53.7
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	60.0	41.3	48.0	45.7	51.1
September	51.2	62.3	45.0	50.9	48.9	53.2
October	44.8	59.2	40.0	46.6	42.4	49.3
November	40.5	52.3	31.9	40.6	36.9	43.2
December	40.0	51.2	30.6	39.7	36.2	42.1
Average	51.7	64.1	42.8	49.3	47.1	53.3
002 January	40.8	50.8	33.7	41.8	38.5	44.4
February	38.0	51.2	33.7	41.0	36.6	43.3
March	45.7	53.2	39.6	48.1	43.8	49.5
April	53.2	R 59.1	47.8	R 55.0	51.1	R 55.8
May	55.2	64.0	51.7	56.5	53.8	57.8
iviay	JJ.2	04.0	51.7	50.5	55.0	31.0

R=Revised.

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, August 2002, Table 19.

Table 9.6 Refiner Prices of Petroleum Products for Resale

	Finished Motor Gasoline ^a	Finished Aviation Gasoline	Kerosene- Type Jet Fuel	Kerosene	No. 2 Fuel Oil	No. 2 Diesel Fuel	Propane (Consume Grade)
							,
978 Average	43.4	53.7	38.6	40.4	36.9	36.5	23.7
979 Average	63.7	72.1	66.0	62.4	56.9	57.4	29.1
980 Average	94.1	112.8	86.8	86.4	80.3	80.1	41.5
981 Average	106.4	125.0	101.2	106.6	97.6	97.2	46.6
982 Average	97.3	122.8	95.3	101.8	91.4	91.4	42.7
983 Average	88.2	117.8	85.4	89.2	81.5	80.8	48.4
984 Average	83.2	116.5	83.0	91.6	82.1	80.3	45.0
•	83.5	113.0	79.4	87.4	77.6	77.2	39.8
985 Average	53.1	91.2	49.5	60.6	48.6	45.2	29.0
986 Average							
987 Average	58.9	85.9	53.8	59.2	52.7	53.4	25.2
988 Average	57.7	85.0	49.5	54.9	47.3	47.3	24.0
989 Average	65.4	95.0	58.3	66.9	56.5	56.7	24.7
990 Average	78.6	106.3	77.3	83.9	69.7	69.4	38.6
91 Average	69.9	100.1	65.0	72.2	62.2	61.5	34.9
92 Average	67.7	99.1	60.5	63.2	57.9	59.1	32.8
993 Average	62.6	96.5	57.7	60.4	54.4	57.0	35.1
994 Average	59.9	93.3	53.4	61.8	50.6	52.9	32.4
995 Average	62.6	97.5	53.9	58.0	51.1	53.8	34.4
996 Average	71.3	105.5	64.6	71.4	63.9	65.9	46.1
997 Average	70.0	106.5	61.3	65.3	59.0	60.6	41.6
998 Average	52.6	91.2	45.0	46.5	42.2	44.4	28.8
999 Average	64.5	100.7	53.3	55.0	49.3	54.6	34.2
00 January	78.6	111.5	80.4	97.9	84.1	77.7	49.4
February	88.4	119.8	83.6	101.2	92.4	85.2	60.2
March	98.9	130.3	83.4	84.4	79.6	85.1	52.9
April	88.5	125.5	77.4	76.7	76.4	79.9	48.8
May	97.9	130.8	77.9	77.6	78.4	81.4	49.3
June	109.3	141.9	79.9	80.0	80.3	82.4	53.9
July	99.3	138.8	83.6	83.1	81.0	83.6	54.8
,	96.9				88.3		
August		133.8	87.9	89.8		92.1	60.3
September	104.8	142.5	105.1	107.7	100.9	105.0	65.9
October	102.2	138.1	104.4	108.1	98.8	104.0	64.3
November	100.2	137.6	105.1	112.8	100.4	103.2	63.3
December	87.9	128.3	99.0	105.8	94.1	93.8	76.7
Average	96.3	133.0	88.0	96.9	88.6	89.8	59.5
001 January	94.2	131.0	88.2	107.3	90.3	90.7	86.4
February	93.9	131.9	86.8	93.4	82.5	85.8	66.9
March	91.0	129.3	80.5	83.6	76.3	78.1	60.1
April	106.4	140.5	79.5	83.0	79.2	82.6	58.6
May	115.5	147.8	83.5	86.6	82.7	89.8	56.2
June	98.7	135.0	82.6	83.3	79.3	85.3	48.7
July	84.3	120.9	75.9	75.4	72.8	75.5	43.6
August	90.7	125.9	77.6	81.3	77.0	80.8	45.6
September	94.1	132.8	80.7	80.1	79.0	84.1	46.4
October	74.2	112.1	68.5	74.5	68.5	71.4	46.1
November	63.4	100.5	61.9	63.5	60.6	61.6	41.6
December	58.4	94.9	55.3	58.6	56.6	54.7	38.1
Average	88.6	125.9	76.3	82.4	75.6	78.4	54.1
02 January	61.1	96.5	57.3	62.1	57.5	54.6	37.6
February	62.7	98.5	57.4	60.9	57.7	56.8	36.6
March	78.1	103.2	64.2	69.2	64.6	66.7	39.9
April	R 86.8	R 116.5	R 69.5	69.9	68.3	R 70.9	41.7
May	85.7	113.4	69.9	68.5	68.4	70.5	40.9

^a See Note 5 at end of section.

R=Revised.

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, August 2002, Table 4.

Table 9.7 Refiner Prices of Petroleum Products to End Users

	Finished Motor Gasoline ^a	Finished Aviation Gasoline	Kerosene- Type Jet Fuel	Kerosene	No. 2 Fuel Oil	No. 2 Diesel Fuel	Propane (Consume Grade)
978 Average	48.4	51.6	38.7	42.1	40.0	37.7	33.5
979 Average	71.3	68.9	54.7	58.5	51.6	58.5	35.7
980 Average	103.5	108.4	86.8	90.2	78.8	81.8	48.2
981 Average	114.7	130.3	102.4	112.3	91.4	99.5	56.5
982 Average	106.0	131.2	96.3	108.9	90.5	94.2	59.2
983 Average	95.4	125.5	87.8	96.1	91.6	82.6	70.9
984 Average	90.7	123.4	84.2	103.6	91.6	82.3	73.7
985 Average	91.2	120.1	79.6	103.0	84.9	78.9	71.7
986 Average	62.4	101.1	52.9	79.0	56.0	47.8	74.5
_			54.3				
987 Average	66.9	90.7		77.0	58.1	55.1	70.1
988 Average	67.3	89.1	51.3	73.8	54.4	50.0	71.4
989 Average	75.6	99.5	59.2	70.9	58.7	58.5	61.5
990 Average	88.3	112.0	76.6	92.3	73.4	72.5	74.5
991 Average	79.7	104.7	65.2	83.8	66.5	64.8	73.0
992 Average	78.7	102.7	61.0	78.8	62.7	61.9	64.3
993 Average	75.9	99.0	58.0	75.4	60.2	60.2	67.3
994 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
	78.1	105.9	54.3	60.5	55.8	58.4	45.8
999 Average	70.1	105.9	34.3	00.5	55.6	30.4	45.0
000 January	91.7	118.7	80.7	111.1	86.5	79.9	62.9
February	98.7	119.5	82.8	130.1	95.2	88.8	73.0
March	113.1	129.1	85.0	107.7	85.9	90.3	64.8
April	108.7	124.3	78.1	99.6	81.7	84.8	48.7
May	110.3	126.8	78.9	86.8	83.1	85.1	49.8
June	121.3	139.8	80.2	88.4	84.5	86.4	54.4
July	117.3	142.6	84.0	90.1	84.7	87.9	55.2
	110.3	NA	88.8	96.5	90.8	93.6	55.7
August							
September	117.5	138.2	106.1	116.2	105.9	107.8	58.2
October	115.5	134.9	104.5	116.0	105.0	107.6	59.7
November	113.5	134.9	106.6	122.9	106.4	107.0	63.8
December	106.3	126.1	99.7	122.7	101.5	99.7	66.8
Average	110.6	130.6	89.9	112.3	92.7	93.5	60.3
2001 January	106.6	128.5	88.3	126.0	99.6	96.2	82.3
February	106.6	130.3	86.9	120.0	94.3	92.0	67.0
	103.8	124.5	81.1	112.8	86.6	84.2	57.6
March							
April	117.6	132.8	80.3	100.5	86.1	86.3	57.0
May	130.1	146.5	84.0	94.1	90.1	93.0	54.3
June	120.5	145.1	83.6	93.8	84.8	90.6	50.5
July	103.0	134.6	76.9	83.4	78.1	81.4	45.1
August	102.5	136.3	77.9	84.2	82.1	84.7	46.3
September	109.2	142.5	82.3	94.9	88.8	89.5	43.7
October	89.9	125.4	67.8	104.3	72.4	77.2	44.7
November	76.8	119.4	62.5	100.9	65.8	68.4	43.5
December	68.4	115.8	55.6	97.7	62.7	60.9	40.2
Average	103.2	132.2	77.6	105.1	82.9	84.2	50.6
•••	- 0 -	10/ -	=6 :		05 -	a	
002 January	70.7	121.2	58.1	98.3	63.6	60.5	38.1
February	71.8	118.5	58.4	97.7	62.3	61.5	35.1
March	87.3	125.2	64.3	99.3	70.1	70.1	39.5
April	R 100.4	R 133.4	R 70.0	NA	72.0	R 75.3	41.7
May	99.9	137.1	70.8	NA	70.9	75.4	40.5

a See Note 5 at end of section.

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, August 2002, Table 2.

R=Revised. NA=Not available.

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

	Maine	New Hampshire	Vermont	Massachusetts	Rhode Island	Connecticut	New York	New Jersey	Pennsylvania
1070 A	40.0	50.0	50.0	40.0	50.7	50.4	50.4	40.0	40.0
978 Average	48.6	50.3	50.8	48.8	50.7	50.1	50.1	49.6	48.8
979 Average	68.8	72.5	72.5	70.9	72.8	72.0	71.2	71.0	69.8
980 Average	96.3	100.4	101.5	97.8	101.1	98.3	98.2	97.9	96.4
981 Average	120.4	123.7	125.4	121.3	123.8	121.7	123.2	121.5	118.1
982 Average	115.5	117.4	120.1	117.6	120.1	118.3	120.5	117.4	113.7
983 Average	102.8	104.1	112.9	109.1	110.5	109.1	112.1	107.9	105.8
984 Average	103.9	108.4	111.9	111.6	111.4	112.1	115.5	111.0	107.9
985 Average	99.7	102.4	107.7	107.0	106.7	108.0	111.3	105.9	102.3
986 Average	74.4	75.9	86.6	82.1	82.8	89.0	91.1	90.2	81.4
987 Average	74.7	76.5	81.1	80.6	82.5	83.4	85.2	84.3	76.9
988 Average	77.7	78.2	82.6	82.1	83.6	85.3	86.3	84.8	77.8
989 Average	89.4	89.3	90.5	92.6	93.9	92.9	95.8	91.8	85.1
990 Average	98.9	102.8	107.0	108.4	108.6	109.8	112.5	108.7	102.6
991 Average	96.0	91.6	101.9	103.0	99.9	106.2	111.3	104.0	99.7
992 Average	87.1	85.6	92.1	92.5	91.2	94.7	102.8	93.9	89.0
993 Average	82.6	82.8	90.4	89.7	89.3	91.9	100.1	92.4	86.3
994 Average	81.8	79.2	87.6	87.0	88.5	89.0	96.6	89.5	85.7
995 Average	78.7	77.9	85.3	84.4	87.4	86.4	95.5	88.8	82.6
996 Average	97.2	94.0	96.9	97.6	98.6	98.6	106.3	102.4	95.3
	94.2	94.2	98.7	96.0	98.9	96.3	106.5	103.3	95.0
997 Average	78.8	78.8		81.8		83.1	94.8	89.2	
998 Average			87.3		86.8				81.4
999 Average	81.3	77.0	85.4	83.6	85.8	85.2	96.9	91.3	81.5
000 January	126.4	120.9	117.2	123.7	118.8	124.5	141.6	134.7	117.3
February	140.5	140.3	133.2	139.6	132.8	141.5	162.9	154.7	133.1
March	120.8	123.0	118.5	116.8	114.8	120.7	135.8	131.6	114.3
April	113.5	116.4	114.0	111.7	112.2	114.0	127.4	124.8	108.2
May	115.1	117.9	112.3	114.3	114.2	114.4	127.5	125.2	106.5
June	117.1	117.0	117.3	112.9	114.2	113.7	128.1	125.0	106.2
July	118.9	117.9	119.5	111.6	112.6	114.1	127.7	124.8	104.0
August	124.8	121.4	122.2	117.4	115.1	115.8	129.0	128.0	109.7
September	136.2	132.3	133.8	128.7	132.6	129.4	140.5	139.8	123.2
October	138.9	131.5	130.9	132.1	134.0	134.5	147.2	144.2	127.2
November	141.1	135.8	133.4	135.1	138.3	137.2	150.3	149.9	131.3
December	137.3	136.4	132.7	137.0	136.9	139.2	152.2	147.2	135.1
Average	129.7	128.1	125.5	127.3	125.9	129.1	144.2	140.4	122.4
001 January	132.8	134.8	132.7	132.8	134.2	136.7	148.6	146.4	133.4
February	129.5	132.9	130.6	129.6	129.5	132.0	143.5	140.7	128.3
March	125.6	130.1	128.9	125.6	125.6	129.0	139.6	133.9	121.9
April	122.9	126.9	127.7	124.3	124.1	127.2	139.6	132.5	117.5
May	121.9	124.4	124.9	122.7	122.3	125.1	137.3	130.9	112.0
June	121.6	125.5	124.7	119.8	121.6	119.1	133.2	128.8	106.3
July	117.8	121.2	122.2	113.7	117.2	113.6	126.9	123.3	101.9
August	115.2	118.9	121.5	113.5	118.0	110.9	127.2	118.5	104.2
September	118.7	118.3	122.7	115.9	119.7	116.2	129.1	120.1	105.8
October	114.8	117.6	120.7	113.4	117.4	113.3	125.9	118.1	103.2
November	110.2	114.8	118.5	110.0	113.9	108.9	123.3	114.3	101.6
December	108.6	114.2	116.9	107.0	111.3	107.4	119.8	112.3	100.3
Average	121.8	125.6	125.9	122.1	123.8	123.9	136.5	131.4	116.4
000 1	400.0	440.0	447.4	407.5	440.4	400.4	404 7	440.0	400.0
002 January	109.6	113.2	117.4	107.5	112.1	108.4	121.7	113.9	103.3
February	108.7	114.1	117.2	106.9	110.9	106.7	121.0	113.5	100.7
March	112.2	109.6	116.2	111.0	107.7	109.3	119.0	117.0	104.8
April	111.8	108.8	117.6	R 113.8	R 112.0	R 109.7	120.0	120.0	106.2
May	111.8	108.1	118.1	113.1	109.8	108.8	117.6	118.5	104.2

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*, August 2002, Table 18.

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

1978 Average		Columbia	Maryland	Virginia	West Virginia	Ohio	Michigan	Indiana	Illinois	Wisconsin	Minnesota
	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
981 Average	117.3	127.4	121.4	120.5	115.0	113.2	118.3	118.5	114.9	109.1	118.4
982 Average	111.3	124.5	117.1	117.7	109.3	110.2	113.9	114.3	110.9	107.8	115.1
983 Average	106.0	117.0	110.3	108.7	101.0	101.3	106.4	100.7	100.4	101.2	103.1
984 Average	109.6	118.7	113.5	110.5	102.1	102.1	105.0	103.1	100.1	101.0	104.1
985 Average	104.6	114.3	108.8	106.3	98.0	99.7	102.1	99.1	97.5	98.3	101.9
986 Average	85.0	93.1	91.4	86.6	74.6	77.7	81.0	74.8	NA	75.6	79.2
987 Average	79.3	91.8	86.6	79.5	76.4	74.7	77.5	75.4	79.8	75.1	74.6
988 Average	80.1	91.6	87.0	80.5	74.2	74.7	77.5	75.4	77.6	73.9	73.5
989 Average	88.2	98.6	93.8	87.0	83.0	81.6	85.3	83.2	80.9	81.1	82.4
990 Average	105.8	107.8	111.9	110.6	99.1	98.1	100.9	99.3	96.1	94.2	101.4
991 Average	99.7	112.2	108.4	101.1	93.4	91.0	94.2	91.8	92.7	89.5	91.1
992 Average	92.3	105.7	100.0	92.8	86.4	83.6	87.2	81.2	87.7	81.6	82.6
993 Average	89.9	104.5	98.1	89.3	85.6	84.0	87.2	81.0	84.4	82.3	83.2
994 Average	89.4	100.0	95.0	85.3	80.9	81.2	86.3	81.2	78.4	81.1	80.6
995 Average	87.0	101.0	93.6	84.4 95.2	81.5	80.8 92.1	86.0	81.6 91.2	78.5	81.2	80.1 90.9
996 Average	98.4 98.4	117.8 117.4	106.3 105.7	95.2 94.8	96.0 96.2	91.3	97.7 94.2	91.2 86.5	89.3 87.0	89.9 93.3	90.9 89.9
1997 Average 1998 Average	96.4 85.8	102.2	90.2	94.6 85.6	96.2 81.8	76.7	94.2 80.4	74.8	73.5	93.3 80.1	73.8
1999 Average	88.4	102.2	90.7	87.0	78.9	82.0	88.3	79.3	71.6	84.7	77.4
JJJ Average	00.4	101.1	30.7	01.0	70.3	02.0	00.0	7 3.3	71.0	04.7	11.4
000 January	124.2	W	123.6	120.9	116.1	110.5	NA	109.6	100.6	105.7	101.9
February	137.3	W	141.5	131.9	130.6	120.1	NA	116.1	109.3	110.2	109.8
March	120.6	W	126.3	122.4	119.7	116.7	NA	117.6	108.3	111.8	109.5
April	115.2	W	119.9	114.5	110.3	111.2	NA	112.4	104.6	110.2	107.5
May	109.6	W	119.6	111.9	110.0	111.9	NA	108.6	98.6	109.8	110.2
June	103.7	W	115.1	109.2	109.7	112.5	NA	115.1	96.0	109.9	112.8
July	103.7	W	115.6	108.2	110.2	110.4	NA	112.3	NA	105.3	111.4
August	112.8	W	120.4	117.7	117.1	111.8	NA	118.8	106.8	114.6	110.6
September	124.9	W	133.3	130.2	130.3	129.5	NA	134.0	124.4	127.8	122.4
October	129.7	W	141.5	133.0	132.7	133.7	NA	135.0	123.1	131.8	128.4
November	139.7	W	147.4	135.8	136.6	134.0	NA	131.5	124.2	130.1	128.5
December	140.0	W	150.1	137.0	137.4	132.4	NA	127.0	123.2	130.2	125.7
Average	127.0	W	135.1	126.9	125.1	122.0	NA	120.7	109.5	117.1	115.6
001 January	140.1	W	150.3	141.5	137.1	131.8	NA	127.1	122.2	128.0	124.5
February	138.0	W	146.5	133.5	127.6	126.8	NA	123.1	118.2	126.5	120.6
March	129.7	W	140.8	122.8	119.2	117.4	NA	114.1	115.3	120.0	115.2
April	123.2	W	137.2	117.4	117.1	117.5	NA	112.3	NA	118.7	119.5
May	113.3	W	128.7	112.9	114.4	120.5	NA	117.8	109.6	122.0	121.3
June	110.8	W	123.2	112.7	112.5	113.0	NA	109.8	103.9	117.1	114.0
July	102.0	W	116.9	106.6	104.5	104.7	NA	102.9	100.3	110.5	106.4
August	101.6	W	117.0	107.7	109.3	110.4	NA	111.6	110.4	118.4	115.4
September	106.1	W	120.0	110.5	112.6	119.9	137.8	118.2	121.4	123.9	118.7
October	NA	W	117.7	106.9	104.3	108.3	122.9	108.2	109.2	114.5	105.4
November	110.3	W	117.2	102.4	NA	100.8	112.8	98.3	98.0	106.2	99.9
December	108.8	W	114.3	97.8	95.8	95.0	109.0	93.6	92.4	96.3	90.2
Average	123.5	143.1	134.2	120.3	114.2	116.1	NA	113.4	111.7	118.1	112.6
002 January	114.2	W	115.8	101.7	96.8	94.2	102.6	91.9	86.7	96.8	91.5
February	111.0	W	115.1	99.9	95.7	94.3	102.4	95.7	84.2	95.6	91.9
March	113.0	W	117.6	101.6	99.5	101.3	103.6	93.8	83.9	100.3	94.0
April	117.3	129.2	R 119.1	R 99.9	101.2	R 103.1	R 106.5	94.9	R 84.6	R 105.1	101.9
May	106.0	NA	114.4	96.4	101.2	103.1	106.3	94.9 W	82.9	106.6	100.4

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, August 2002, Table 18.

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

	Idaho	Washington	Oregon	Alaska	U.S. Average
978 Average	43.6	48.6	45.8	53.2	49.0
979 Average	62.1	69.7	68.0	68.2	70.4
980 Average	91.6	100.8	97.3	97.8	97.4
981 Average	110.4	116.5	111.4	118.0	119.4
982 Average	110.4	117.6	111.6	117.4	116.0
983 Average	101.8	109.0	103.6	108.8	107.8
984 Average	98.5	102.6	99.3	106.9	109.1
	97.2	101.1	97.1	108.3	105.3
985 Average					
986 Average	73.8	77.5	70.4	94.9	83.6
987 Average	68.8	79.5	72.5	86.5	80.3
988 Average	68.8	78.5	70.9	86.9	81.3
989 Average	77.8	87.4	80.2	96.4	90.0
990 Average	97.4	102.9	97.0	110.1	106.3
991 Average	95.1	101.6	93.3	105.0	101.9
992 Average	85.7	94.0	87.6	94.1	93.4
993 Average	86.2	99.9	91.8	96.1	91.1
994 Average	78.9	95.0	88.7	86.5	88.4
995 Average	83.9	96.2	89.4	83.4	86.7
996 Average	93.3	108.0	98.9	90.9	98.9
997 Average	95.3	113.9	103.1	97.3	98.4
998 Average	78.4	97.8	86.1	85.2	85.2
999 Average	76.2	106.5	93.8	96.6	87.6
000 January	93.5	127.5	115.6	122.0	125.8
February	97.7	134.0	124.9	126.3	142.5
March	109.2	145.4	136.1	131.3	123.9
April	105.9	133.8	127.7	130.3	117.7
May	96.6	132.0	121.2	124.7	117.2
•					
June	NA	128.1	122.8	120.4	116.3
July	109.6	NA	126.4	121.8	115.0
August	114.1	133.3	131.3	130.8	119.0
September	133.3	156.6	154.4	140.8	132.0
October	140.8	162.8	156.0	NA	136.6
November	140.5	160.5	150.6	154.1	139.7
December	128.4	162.5	155.8	152.9	141.1
Average	117.0	144.5	136.8	133.7	131.1
001 January	120.9	144.0	134.3	NA	138.7
February	114.1	145.4	134.4	149.4	134.2
March	108.9	141.9	129.7	152.3	129.4
April	110.3	141.8	130.3	NA 115.0	127.2
May	114.2	144.6	133.8	145.6	124.9
June	111.9	141.3	129.9	140.6	120.2
July	100.9	122.7	115.4	131.8	113.6
August	102.1	119.0	116.7	124.6	114.3
September	107.6	128.0	121.0	NA	117.6
October	100.2	NA	110.9	131.1	114.1
November	89.4	118.1	103.5	125.7	110.9
December Average	75.8 103.9	110.2 133.6	94.9 121.2	119.9 137.8	108.0 125.0
	74.7	100.0	02.0	4440	400 7
002 January	74.7	109.2	93.6	114.0	109.7
February	74.5	108.6	94.3	114.5	108.6
March	79.2	118.2	104.4	110.4	_ 109.9
April	87.1	124.5	^R 108.0	111.8	R 111.2
May	82.7	124.7	107.6	108.4	108.7

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.

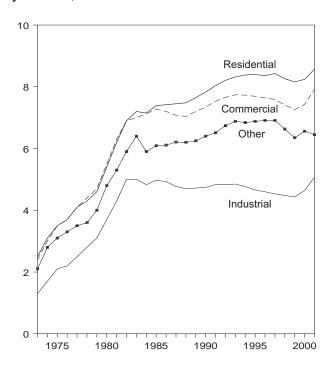
Web Page: http://www.eia.doe.gov/emeu/mer/prices.html.

Source: EIA, Petroleum Marketing Monthly, August 2002, Table 18.

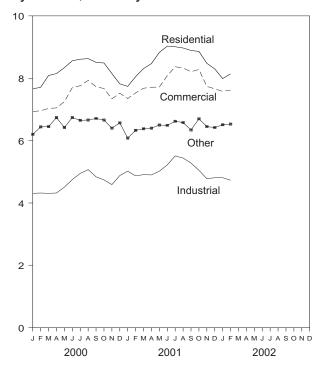
Retail Prices of Electricity Sold by Electric Utilities

(Cents per Kilowatthour)

By Sector, 1973-2001



By Sector, Monthly

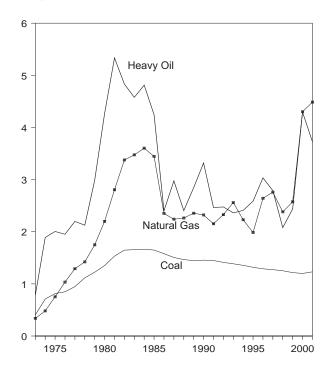


Note: Excludes taxes.

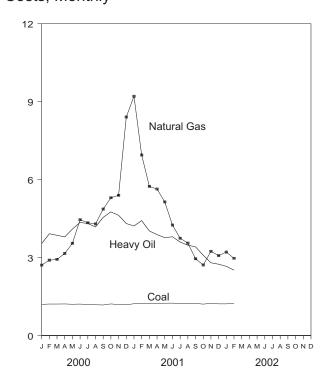
Web Page: http://www.eia.doe.gov/emeu/mer/prices.html. Source: Table 9.9.

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

Costs, 1973-2001



Costs, Monthly



Note: Beacause 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 Retail Prices of Electricity Sold by Electric Utilities

(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
	3.5	3.5	2.1	3.1	2.9
1975 Average					
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
983 Average	7.2	7.0	5.0	6.4	6.3
					6.25
984 Average	7.15	7.13	4.83	5.90	
985 Average	7.39	7.27	4.97	6.09	6.44
986 Average	7.42	7.20	4.93	6.11	6.44
987 Average	7.45	7.08	4.77	6.21	6.37
988 Average	7.48	7.04	4.70	6.20	6.35
989 Average	7.65	7.20	4.72	6.25	6.45
990 Average	7.83	7.34	4.74	6.40	6.57
991 Average	8.04	7.53	4.83	6.51	6.75
992 Average	8.21	7.66	4.83	6.74	6.82
993 Average	8.32	7.74	4.85	6.88	6.93
994 Average	8.38	7.73	4.77	6.84	6.91
995 Average	8.40	7.69	4.66	6.88	6.89
996 Average	8.36	7.64	4.60	6.91	6.86
997 Average	8.43	7.59	4.53	6.91	6.85
998 Average	8.26	7.41	4.48	6.63	6.74
999 Average	8.16	7.26	4.43	6.35	6.66
2000 January	7.66	6.93	4.31	6.20	6.40
February	7.71	6.96	4.32	6.44	6.39
March	8.09	7.03	4.31	6.45	6.44
April	8.15	7.05	4.32	6.74	6.43
May	8.34	7.25	4.51	6.42	6.64
June	8.56	7.70	4.75	6.74	7.06
July	8.61	7.76	4.95	6.65	7.25
August	8.63	7.93	5.07	6.66	7.34
September	8.51	7.73	4.84	6.71	7.11
October	8.49	7.67	4.74	6.66	6.94
November	8.15	7.34	4.59	6.40	6.66
December	7.82	7.52	4.88	6.57	6.85
Average	8.24	7.43	4.64	6.56	6.81
2001 January	7.74	7.35	5.02	6.08	6.85
February	8.05	7.53	4.87	6.33	6.88
March	8.31	7.68	4.91	6.38	7.00
April	8.47	7.71	4.90	6.40	7.01
		7.72			7.15
May	8.83		5.02	6.50	
June	9.03	8.08	5.22	6.49	7.51
July	9.01	8.37	5.51	6.62	7.80
August	8.97	8.33	5.44	6.58	7.77
September	8.89	8.21	5.28	6.34	7.56
October	8.86	8.28	5.05	6.70	7.40
November	8.48	7.74	4.78	6.45	6.99
December	8.30	7.66	4.81	6.42	7.02
Average	8.57	7.91	5.07	6.45	7.02 7.26
2002 January	7.99	7.58	4.81	6.51	6.98
					6.96
February 2-Month Average	8.14 8.06	7.62 7.60	4.73 4.77	6.53 6.52	6.97
•	7.88	7.43	4.94	6.20	6.87
2001 2-Month Average	7.88 7.68	7.43 6.94	4.94 4.31	6.32	6.40

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

Notes: Prices are calculated by dividing revenue by sales. Revenue may not correspond to sales for a particular month because of electric utility billing and accounting procedures. That lack of correspondence could result in uncharacteristic increases or decreases in the monthly prices. See Note 7

at end of section. $\;$ Geographic coverage is the 50 States and the District of Columbia.

Sources: See end of section.

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

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

	Co	oal		Petro	leum		Natura	l Gas ^a	All Fossil Fuels ^b
			Heav	y Oil ^b	Tot	al ^{b,c}			
	Quantity (thousand short tons)	Cost (cents per million Btu)	Quantity (thousand barrels)	Cost (cents per million Btu)	Quantity (thousand barrels)	Cost (cents per million Btu)	Quantity (million cubic feet)	Cost (cents per million Btu)	Cost (cents per million Btu)
1973 Year	374,842	40.5	512,650	78.5	535,859	80.0	3,382,677	33.8	47.6
1974 Year	384,868	70.9	479,166	189.0	515,217	191.0	3,225,203	48.2	91.4
1975 Year	431,527	81.4	457,582	200.5	510,352	202.3	3,034,808	75.2	104.4
1976 Year	454,858	84.8	495,363	195.2	549,973	199.0	2,962,811	103.4	111.9
1977 Year	490,415	94.7	563,685	219.8	635,556	224.9	3,106,403	129.1	129.7
1978 Year	476,169	111.6	546,197	212.5	616,040	219.1	3,140,654	142.2	141.1
1979 Year	556,558	122.4	479,705	298.8	515,695	307.2	3,368,976	174.9	163.9
1980 Year	593,995	135.1	394,159	426.7	419,140	435.1	3,588,814	219.9	192.8
1981 Year	579,374	153.2	327,477	533.4	345,544	542.5	3,573,558	280.5	225.6
1982 Year	601,427	164.7	228,200	483.2	239,111	492.2	3,161,348	337.6	224.9
1983 Year	592,728	165.6	211,705	457.8	219,652	462.8	2,732,248	347.4	220.6
1984 Year	684,111	166.4	193,832	481.2	202,372	486.3	2,878,808	360.3	219.1
1985 Year	666,743	164.8	156,410	424.4	164,947	431.7	2,808,921	344.4	209.4
1986 Year	686,964	157.9	220,585	240.1	228,522	243.7	2,387,622	235.1	175.0
1987 Year	721,298	150.6	187,300	297.6	194,578	301.1	2,605,191	224.0	170.6
1988 Year	727,775	146.6	230,234	240.5	236,924	243.9	2,362,721	226.3	164.3
1989 Year	753,217	144.5	237,668	284.6	246,422	289.3	2,472,506	235.5	167.5
1990 Year	786,627	145.5	202,281	331.9	209,350	338.4	2,490,979	232.1	168.9
1991 Year	769,923	144.7	163,106	246.5	169,625	254.8	2,630,818	215.3	160.3
1992 Year	775,963	141.2	138,537	247.5	144,390	255.1	2,637,678	232.8	159.0
1993 Year	769,152	138.5	141,719	236.2	147,902	243.3	2,574,523	256.0	159.5
1994 Year	831,929	135.5	135,184	240.9	142,940	248.8	2,863,904	223.0	152.6
1995 Year	826,860	131.8	78,216	258.6	84,292	267.9	3,023,327	198.4	145.3
1996 Year	862,701	128.9	98,926	303.4	106,629	315.7	2,604,663	264.1	151.9
1997 Year	880,588	127.3	110,906	278.8	117,789	288.0	2,764,734	276.0	152.2
1998 Year 1999 Year	929,448 908,232	125.2 121.6	156,852 123,219	207.9 243.6	165,191 131,407	213.6 252.7	2,922,957 2,809,455	238.1 257.4	143.8 144.1
2000 January	69,471	119.9	2,668	353.6	3,035	378.4	170,117	270.9	139.4
February	67,199	121.2	3,846	391.7	4,271	419.6	151,152	290.2	143.2
March	69,703	121.2	3,764	385.8	4,066	402.7	191,465	293.0	146.0
April	63,890	121.6	4,961	379.6	5,258	389.5	199,696	315.8	153.0
May	67,779	120.4	7,708	409.7	8,331	422.8	268,772	354.9	167.2
June	65,615	121.1	10,034	435.4	10,650	444.4	270,015	445.9	187.2
July	68,217	119.3	11,397	431.0	12,027	439.8	323,950	434.0	191.6
August	69,160	118.5	10,992	418.0	11,412	426.5	332,154	429.4	189.2
September	64,642	117.6	9,696	454.9	10,168	466.9	240,233	486.7	187.8
October	61,904	121.7	8,944	475.9	9,355	487.2	177,839	530.3	185.9
November	61,175	119.1	8,184	462.8	8,676	477.8	147,630	539.5	177.1
December	61,520	118.7	10,454	431.0	12,607	471.8	156,963	840.9	217.4
Total	790,274	120.0	92,648	429.4	99,855	445.0	2,629,986	430.2	173.8
2001 January	67,470	122.3	13,773	421.7	17,254	471.4	134,549	920.7	214.5
February	57,397	123.9	9,166	442.2	9,799	455.8	114,039	694.7	189.3
March	64,359	122.6	8,685	402.3	9,635	419.6	141,653	573.8	178.5
April	60,277	123.9	9,422	388.4	10,152	404.7	178,222	563.7	192.2
May	68,369	124.5	12,171	376.7	12,897	389.6	203,724	514.1	186.5
June	63,667	124.8	10,717	380.1	11,240	391.2	212,536	425.1	178.7
July	65,920	122.5	10,872	359.7	11,282	367.0	282,929	374.3	176.6
August	67,986	123.3	8,546	347.7	8,965	359.0	277,039	355.8	169.9
September	57,998	123.4	6,612	341.3	7,017	358.1	207,491	295.5	156.8
October	64,442	121.0	4,503	309.0	4,838	325.6	165,688	271.5	142.4
November	59,551	123.7	5,728	280.0	6,121	291.5	111,201	324.1	145.3
December	65,380	122.0	4,853	274.5	5,321	286.3	123,295	307.6	141.9
Total	762,815	123.1	105,048	372.4	114,523	392.0	2,152,366	448.6	173.3
2002 January	60,026	121.9	3,649	266.4	3,981	279.7	98,478	321.2	139.9
February	56,544	124.0	1,920	251.6	2,219	274.8	97,866	297.0	139.3
2 Months	116,570	122.9	5,569	261.3	6,200	278.0	196,344	309.1	139.6
2001 2 Months 2000 2 Months	124,866 136,670	123.0 120.5	22,938 6,515	429.8 376.1	27,054 7,306	465.7 402.5	248,587 321,269	816.8 280.0	203.0 141.2

^a Includes supplemental gaseous fuels.

bunker oil, and liquefied petroleum gas.

Notes: Receipts are purchases of fuel. Yearly costs are averages of monthly values, weighted by quantities in Btu. See Note 8 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: See end of section.

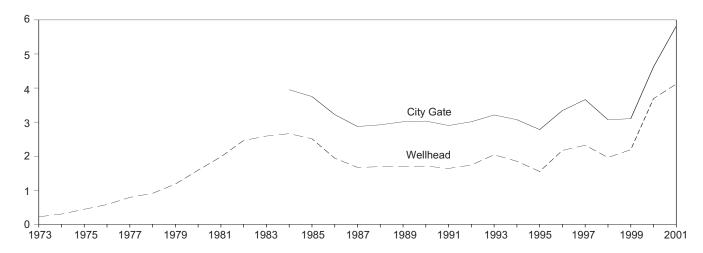
b Heavy oil includes fuel oil nos. 4, 5, and 6, and topped crude oil. The weighted averages for petroleum and all fossil fuels include both heavy and light oil (fuel oil nos. 1 and 2, kerosene, and jet fuel) prices. Data do not include petroleum coke.

C Data for 1973-1982 do not include small quantities of rerefined motor oil,

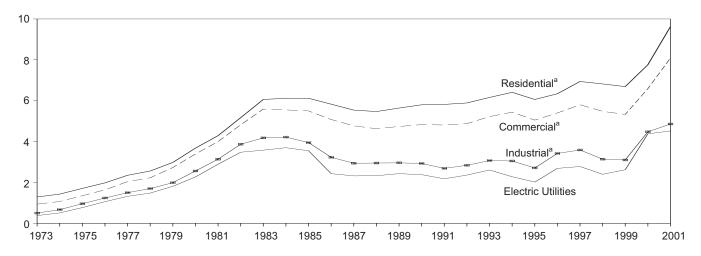
Figure 9.4 Natural Gas Prices

(Dollars per Thousand Cubic Feet)

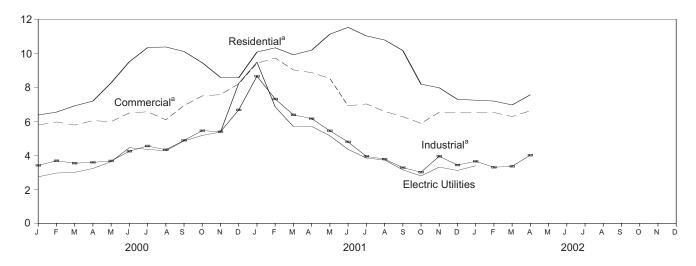
Selected Prices, 1973-2001



Delivered to Consumers, 1973-2001



Delivered to Consumers, Monthly



^a Includes 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

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

					Delivered to Co	ilisuille is		
				Cor	nmercial	Inc	dustrial	
	Wellhead	City Gate	Residential ^c	Price ^c	Share of Total Volume Delivered	Price ^C	Share of Total Volume Delivered	Electric Utilities ^d
1973 Average	0.22	NA	1.29	0.94	NA	0.50	NA	0.38
1974 Average	.30	NA	1.43	1.07	NA	.67	NA	.51
1975 Average	.44	NA	1.71	1.35	NA	.96	NA	.77
1976 Average	.58	NA	1.98	1.64	NA	1.24	NA	1.06
1977 Average	.79	NA	2.35	2.04	NA	1.50	NA	1.32
1978 Average	.91	NA	2.56	2.23	NA	1.70	NA	1.48
1979 Average	1.18	NA	2.98	2.73	NA	1.99	NA	1.81
1980 Average	1.59	NA	3.68	3.39	NA	2.56	NA	2.27
1981 Average	1.98	NA	4.29	4.00	NA	3.14	NA	2.89
1982 Average	2.46	NA	5.17	4.82	NA	3.87	85.1	3.48
1983 Average	2.59	NA	6.06	5.59	NA	4.18	80.7	3.58
1984 Average	2.66 2.51	3.95	6.12	5.55	NA NA	4.22	74.7	3.70
1985 Average	1.94	3.75 3.22	6.12 5.83	5.50 5.08	NA NA	3.95 3.23	68.8 59.8	3.55 2.43
1986 Average1987 Average	1.67	2.87	5.54	4.77	93.1	2.94	47.4	2.43
1988 Average	1.69	2.92	5.47	4.63	90.7	2.94	47.4 42.6	2.32
1989 Average	1.69	3.01	5.64	4.74	89.1	2.96	36.9	2.43
1990 Average	1.71	3.03	5.80	4.83	86.6	2.93	35.2	2.38
1991 Average	1.64	2.90	5.82	4.81	85.1	2.69	32.7	2.18
1992 Average	1.74	3.01	5.89	4.88	83.2	2.84	30.3	2.36
1993 Average	2.04	3.21	6.16	5.22	83.9	3.07	29.7	2.61
1994 Average	1.85	3.07	6.41	5.44	79.3	3.05	25.5	2.28
1995 Average	1.55	2.78	6.06	5.05	76.7	2.71	24.5	2.02
1996 Average	2.17	3.34	6.34	5.40	77.6	3.42	19.4	2.69
1997 Average	2.32	3.66	6.94	5.80	70.8	3.59	18.1	2.78
1998 Average	1.96	3.07	6.82	5.48	67.0	3.14	16.1	2.40
1999 Average	2.19	3.10	6.69	5.33	66.2	3.10	17.4	2.62
2000 January	2.60	3.27	6.37	5.78	66.5	3.41	18.7	2.74
February	2.73	3.48	6.54	5.96	67.4	3.68	19.4	2.96
March	2.66	3.54	6.91	5.78	62.4	3.54	18.2	3.00
April	2.86	3.72	7.19	6.04	61.2	3.59	18.0	3.23
May	3.04	4.15	8.26	5.98	59.6	3.67	17.0	3.63
June	3.77	5.19	9.50	6.49	56.5	4.24	18.1	4.45
July	3.84	5.20	10.33	6.56	55.5 53.7	4.55	17.6	4.35
August	3.73	4.63	10.37	6.09	57.7	4.33	17.1	4.27
September	4.26	5.21	10.10	6.93	56.0	4.88	16.5	4.85
October	4.58 4.40	5.66	9.44	7.49 7.57	58.5 63.0	5.45	16.6 19.8	5.17
November	4.40 5.77	5.20 6.64	8.58 8.56	8.20	67.5	5.39 6.67	20.4	5.37 8.23
December Average	3.69	4.62	7.76	6.59	62.9	4.48	18.1	4.38
2001 January	E 8.06	8.84	^R 10.07	^R 9.41	^R 70.6	R 8.65	^R 16.2	9.47
February	E 5.84	R 7.20	R 10.32	R 9.72	R 68.8	R 7.31	R 15.5	6.85
March	E 5.15	6.17	9.91	R 9.02	^R 67.2	R 6.38	R 14.9	5.69
April	^E 5.21	6.35	10.18	R 8.86	64.7	^R 6.16	R 13.8	5.70
May	E 4.56	5.89	R 11.12	^R 8.52	R 57.0	^R 5.44	12.9	^R 5.15
June	E 3.88	5.36	^R 11.52	6.91	61.5	R 4.79	13.0	R 4.35
July	E 3.39	4.28	R 11.02	R 7.02	54.5	3.94	R 18.7	R 3.84
August	E 3.23	4.27	R 10.78	R 6.58	^R 55.1	3.78	R 18.3	R 3.73
September	E 2.55	3.64	10.16	R 6.27	R 52.8	R 3.28	R 19.3	3.15
October	E 2.40	3.47	8.18	R 5.88	R 58.4	3.01	R 19.4	2.79
November	E 2.74	4.17	7.97	R 6.53	63.0	R 3.95	R 18.3	R 3.31
December	E 2.38	4.08	R 7.29	^R 6.51	R 66.5	R 3.43	19.5	R 3.11
Average	E 4.12	R 5.83	9.63	R 8.12	^R 64.1	R 4.85	16.7	R 4.51
2002 January	E 2.35	4.16	R 7.24	R 6.54	67.0	R 3.65	R 20.2	3.39
February	E 2.14	3.86	7.19	6.52	65.7	3.30	R 20.1	NA
March	E 2.52	3.87	6.96	6.28	65.4	3.36	R 20.1	NA
April	E 3.02	4.09	7.56	6.62	60.2	4.01	16.1	NA
4-Month Average ^e	E 2.51	4.00	7.21	6.48	65.0	3.55	19.2	NA
2001 4-Month Average ^e 2000 4-Month Average ^e	^E 6.07 2.71	7.38 3.47	10.11 6.66	9.31 5.87	68.3 64.9	7.19 3.55	15.1 18.6	7.21 2.90

a Includes supplemental gaseous fuels.

Notes: Prices shown on this page are intended to include all taxes. See Note 9 at end of section. Wellhead annual and year-to-date prices are simple averages of the monthly prices; all other annual and year-to-date prices are volume-weighted averages of the monthly prices. Geographic coverage is the 50 States and the District of Columbia.

b See Note 9 at end of section.

c Includes taxes.

d See Note 8 at end of section.

e Year-to-date prices for electric utilities are one month behind those of other data series in this table.

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

Web Page: http://www.eia.doe.gov/emeu/mer/prices.html. Sources: See end of section.

Energy Prices Notes

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

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

Crude oil costs and volumes reported on Form ERA-49 excluded unfinished oils but included the Strategic Petroleum Reserve (SPR). Crude oil costs and volumes

reported on Federal Energy Administration (FEA) Form FEA-P110-M-1, "Refiners' Monthly Cost Allocation Report," included unfinished oils but excluded SPR. Imported averages derived from Form ERA-49 exclude oil purchased for SPR, whereas the composite averages derived from Form ERA-49 include SPR. None of the prices derived from Form EIA-14 include either unfinished oils or SPR.

5. Several different series of motor gasoline prices are published in this section. U.S. city average retail prices of motor gasoline are calculated monthly by the Bureau of Labor Statistics during the development of the Consumer Price Index (CPI). These prices include all Federal, State, and local taxes paid at the time of sale. From 1974-1977, prices were collected in 56 urban areas. From 1978 forward, prices were collected from a new sample of service stations in 85 urban areas selected to represent all urban consumers—about 80 percent of the total U.S. population. The service stations are selected initially, and on a replacement basis, in such a way that they represent the purchasing habits of the CPI population. Service stations in the current sample include those providing all types of service (i.e., full-, mini-, and self-serve).

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

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

- 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.
- 8. Data for 1973-1982 cover all electric generating plants at which the generator nameplate capacity of all steam-electric units combined totaled 25 megawatts or greater. From 1974-1982, peaking units were included the data and counted towards 25-megawatt-or-greater total. Data for 1983-1990 cover all electric generating plants at which the generator nameplate capacity of all steam-electric units combined totaled 50 megawatts or greater. Data for 1991 forward cover all electric generating plants at which the generator nameplate capacity of all steam-electric units and combined-cycle units together totaled 50 megawatts or greater.
- 9. Natural gas prices are intended to include all taxes. Instructions on the data collection forms specifically direct that all Federal, State, and local taxes, surcharges, and/or adjustments billed to consumers are to be included. However, sales and other taxes itemized on more than 3,000 consumers' bills are sometimes excluded by the reporting utilities. Delivered-to-consumers prices for 1987 forward represent natural gas delivered and sold to residential, commercial, industrial, and electric utility consumers. They do not include the price of natural gas delivered to industrial and commercial consumers on behalf of third parties. Volumes of natural gas delivered on behalf of third parties are included in the consumption data shown in Table 4.4. Additional information is available in the EIA Natural Gas Monthly, Appendix C.

Sources for Table 9.1

Domestic First Purchase Price

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

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

1978 forward—Energy Information Administration (EIA), *Petroleum Marketing Monthly*, August 2002, 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*, August 2002, 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*, August 2002, Table 1.

Sources for Table 9.2

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

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

1978 forward—EIA, *Petroleum Marketing Monthly*, August 2002, Table 24.

Sources for Table 9.9

1973-September 1977—Federal Power Commission (FPC), 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, May 2002, Table 52.

Sources for Table 9.10

1973-June 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.

1990-2001—EIA, Electric Power Monthly, April 2002, Table 26.

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

Sources for Table 9.11

Prices, 1973-1994

Wellhead—Energy Information Administration (EIA), *Natural Gas Annual 2000*, Table 96.

City Gate, 1984-1987—EIA, Natural Gas Monthly, March 1990, Table 4.

City Gate, 1988-1992— EIA, Natural Gas Monthly, March 1995, Table 4.

City Gate, 1993 and 1994—EIA, Natural Gas Monthly, December 1999, Table 4.

Delivered to Consumers, 1973-1994—EIA, *Natural Gas Annual 2000*, Table 96.

Prices, 1995 forward

EIA, Natural Gas Monthly, July 2002, Table 4.

Share of Total Volume Delivered, Annual

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

Share of Total Volume Delivered, Monthly

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

April 1988-March 1989	-	Table (C-1
April 1989-December 1991	-	Table	33
January 1992-February 1993	-	Table	32
March 1993-October 1995	-	Table	28
November 1995-December 1997	-	Table	24
January 1998-Present	-	Table	25

Section 10. Renewable Energy

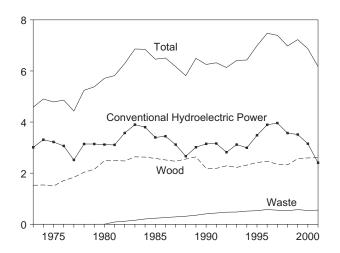
Beginning with the January 2001 issue of the *Monthly Energy Review (MER)*, previously uncounted portions of renewable energy data (including renewable nonutility generation and all nonelectric energy) were fully incorporated into the *MER* summaries in Sections 1 and 2. The addition of these data into the summaries raised the U.S. energy consumption total by 3 to 4 quadrillion Btu per year in recent years.

The tables presented in this section organize and summarize the renewable energy data and estimates that are now used in Sections 1 and 2 summary tables. Caution is warranted in using some of the monthly values; in particular, monthly data on Table 10.2 are not available from data collection systems but are estimated instead from daily rates of the annual data.

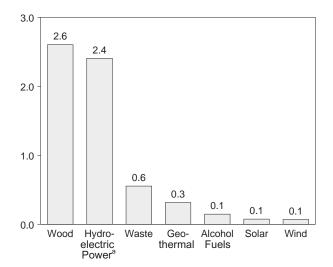
Figure 10.1 Renewable Energy Consumption

(Quadrillion Btu, Except as Noted)

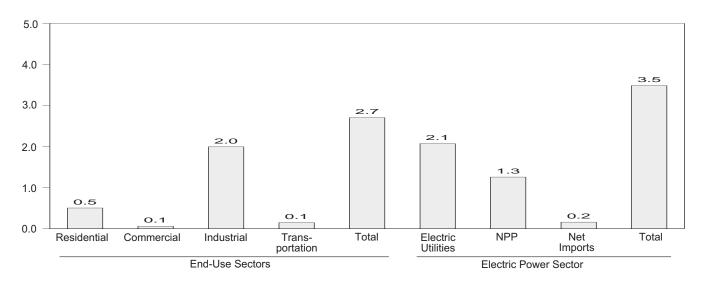
Total and Major Sources, 1973-2001



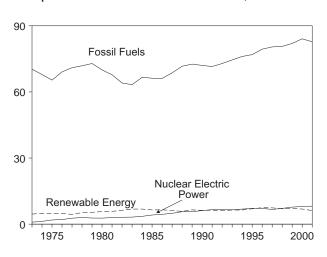
By Source, 2001



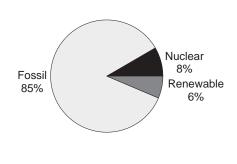
By Sector, 2001



Compared With Other Resources, 1973-2001



As Share of Total Consumption, 2001



NPP=Nonutility Power Producers. ^aConventional hydroelectric power.

Web Page: http://www.eia.doe.gov/emeu/mer/renew.html. Sources: Tables 1.4 and 10.1-10.3b.

Table 10.1 Renewable Energy Consumption by Source

(Trillion Btu)

	Conventional Hydroelectric Power ^{a,b}	Wood ^c	Wasted	Alcohol Fuels ^e	Geothermal ^f	Solar ^g	Wind ^h	Total
	1 Ower -	11000	Wasic	i ucis	Ocomerma	Colars	· · · · · · · · · · · · · · · · · · ·	Total
1973 Total	3,010	1,527	2	NA	43	NA	NA	4,581
1974 Total	3,309	1,538	2	NA	53	NA	NA	4,902
1975 Total	3,219	1,497	2	NA	70	NA	NA	4,788
1976 Total	3,066	1,711	2	NA	78	NA	NA	4,857
1977 Total	2,515	1,837	2	NA	77	NA	NA	4,431
1978 Total	3,141	2,036	1	NA	64	NA	NA	5,243
1979 Total	_ 3,141	2,150	2	NA	84	NA	NA	5,377
1980 Total	E 3,118	2,483	2	NA	110	NA	NA	5,712
1981 Total	E 3,105	2,495	88	7	123	NA	NA	5,818
1982 Total	^E 3,572	2,477	119	19	105	NA	NA	6,292
1983 Total	^E 3,899	2,639	157	35	129	NA	(s)	6,860
1984 Total	^E 3,800	2,629	208	43	165	(s)	(s)	6,845
1985 Total	^E 3,398	^E 2,576	^E 236	^E 52	198	(s)	(s)	6,460
1986 Total	E 3,446	^E 2,518	^E 263	^E 60	219	(s)	(s)	6,507
1987 Total	E 3,117	E 2.465	289	69	229	(s)	(s)	6,170
1988 Total	E 2,662	E 2,552	^E 315	E 70	217	(s)	(s)	5,817
1989 Total	3,014	E 2,635	354	71	334	59	24	6,492
1990 Total	3,146	E 2,188	408	63	355	63	32	6,254
1991 Total	3,159	E 2.188	440	73	363	66	32	6,320
1992 Total	2.818	E 2,288	473	83	374	67	30	6,134
1993 Total	3,119	2,226	479	97	387	71	31	6,410
1994 Total	2.993	2,314	515	109	391	72	36	6,429
	3,481	2,418	531	117	333	73	33	6,987
1995 Total	3,461	2,416	577	84	346	75 75	35 35	
1996 Total								7,473
1997 Total	3,961	2,348	551	106	322	74	33	7,395
1998 Total	3,569	2,326	533	117	328	74	31	6,977
1999 Total	3,512	2,566	572	122	335	73	46	7,226
2000 January	E 285	E 220	E 45	12	E 27	E 6	4	599
February	E 257	E 207	E 43	10	E 24	^E 5	4	550
March	E 298	E 220	E 46	12	E 24	E 6	4	610
April	E 316	E 213	E 44	10	E 25	E 6	5	619
May	E 308	E 217	E 46	12	E 26	E 6	5	620
June	E 286	E 212	E 45	9	E 26	E 6	4	588
July	E 283	E 222	E 46	11	E 27	E 6	4	600
August	E 264	E 220	E 46	12	E 28	E 6	4	581
September	E 217	E 213	E 44	11	E 27	E 6	4	522
October	E 197	E 220	E 46	13	E 28	E 6	5	515
November	E 221	E 213	E 45	13	E 28	E 6	4	530
December	E 219	E 219	E 45	14	E 29	E 6	4	536
Total	E 3,152	E 2,596	E 541	139	E 319	E 70	51	6,868
Total	,	•		139				0,000
2001 January	E 208	E 221	E 49	15	E 29	<u> </u>	E 3	530
February	E 191	E 196	E 46	12	E 26	^E 5	E 3	479
March	E 225	E 216	E 51	12	E 27	E 6	E 5	543
April	E 205	E 209	E 53	11	E 25	E 6	7	515
May	E 222	E 216	E 53	11	E 24	E 6	E 6	539
June	E 231	E 210	E 52	12	E 25	^E 6	7	543
July	E 201	E 219	E 54	11	E 26	E 6	6	525
August	E 211	E 221	E 54	10	E 26	E 6	5	533
September	E 162	E 212	E 52	12	E 26	E 6	4	475
October	E 164	E 220	E 53	16	E 26	E 6	5	489
November	E 167	E 212	E 53	13	E 26	E 6	4	480
December	E 217	E 218	E 55	13	E 27	E 6	4	539
Total	E 2,404	E 2,571	^E 624	147	^E 312	^E 70	^E 60	6,189
	E 240	E 221	^E 54	13	E 27	E 6	E ₂	562
2002 January	RE 222	RE 216	RE 46		RE 23	E 5	RE 5	R 529
February	RE 241	RE 225	RE 49	12	RE 25	RE 6	RE 8	R 565
March	™- ∠41	N= 225	RE 48	12	N= 25	RE 6	RE 10	
April	RE 252	RE 218	'\- 48	12	RE 23		`` <u>-</u> 10	R 568
May	E 269	E 225	E 49	14	E 22	E 6	E 11	596
5-Month Total	E 1,223	E 1,104	E 245	62	E 120	E 29	^E 37	2,820
2001 5-Month Total	<u> </u>	^E 1,059	<u> </u>	61	<u> </u>	E 28	25	2,605
2000 5-Month Total	E 1.464	E 1.077	E 225	55	^E 126	E 29	22	2,997

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

energy.

Description of electricity net imports. From 1989, includes only the portion of electricity net imports derived from hydroelectric power.

Wood, wood waste, black liquor, red liquor, spent sulfite liquor, wood sludge, and utility poles.

peat, railroad ties, and utility poles.

^d 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. For 1999 forward, data also include electricity net generation from batteries, chemicals, hydrogen, pitch, sulfur, and purchased steam.

e Ethanol blended into motor gasoline.

f Geothermal electricity net generation, heat pump, and direct use energy.
 From 1989, also includes electricity imports derived from geothermal energy.
 g Solar thermal and photovoltaic electricity net generation, and solar thermal

of the final and photovoltaic electricity net generation, and solar thermal direct use energy.

h Wind electricity net generation.

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

Notes: Totals may not equal sum of components due to independent rounding. Geographic coverage is the 50 states and the Di Web Page: http://www.eia.doe.gov/emeu/mer/renew.html. Sources: Tables 10.2, 10.3a, and 10.3b. Geographic coverage is the 50 states and the District of Columbia.

Table 10.2 Renewable Energy Consumption by End-Use Sector (Trillion Btu)

			Resid	ential			Commercia	I		Indu	striala		Trans- portation	
1974 Total		Woodb		Solard	Total	Woodb		Total	Woode	Waste ^f		Total	Alcohol Fuels ⁹	End-Use Total
1974 Total	3 Total												NA	1,526
1975 Iotal	4 Total												NA	1,537
1977 Total	5 Total													1,497
1978 Iotal	6 Total													1,711
1979 Iotal	7 Total													1,833
1980 Total	8 lotal													2,034 2,147
1981 Total	9 Total													2,147
1982 Total 937 NA NA 937 22 NA 22 1,516 118 NA 1,634 193 193 193 193 194 Total 925 NA NA NA 937 22 NA 22 1,516 118 NA 1,634 135 1934 Total 925 NA NA NA 932 122 NA 22 1,690 155 NA 1,845 35 1934 Total 925 NA NA NA 932 122 NA 22 1,690 155 NA 1,845 35 1934 Total 923 NA NA NA 932 122 NA 22 1,679 20 NA 1,855 135 1934 Total 925 NA NA NA 932 122 NA 1,27 1,679 20 NA 1,855 150 1987 Total 852 NA NA NA 852 129 NA 1,27 1,176 225 1308 NA 1,858 150 1987 Total 852 NA NA NA 852 129 NA 1,27 1,176 225 1308 NA 1,1858 150 1988 Total 918 5 53 976 134 3 153 140 1,25 150 22 1,646 71 1990 Total 581 6 56 642 137 3 640 1,25 150 22 1,646 1991 Total 6613 6 58 677 139 3 642 1,190 275 2 1,467 73 1991 Total 6645 6 60 711 142 3 645 123 123 123 123 125 13991 Total 581 6 66 60 711 142 3 645 120 120 120 120 120 120 120 120 120 120	1 Total													2,586
1983 Total 925 NA NA 925 22 NA 22 1,690 155 NA 1,845 33 1985 Total 923 NA NA NA 923 22 NA 22 1,690 155 NA 1,845 33 43 1985 Total 923 NA NA NA 923 22 NA 22 1,679 204 NA 1,883 43 1985 Total 876 NA NA NA 8899 124 NA 127 11,645 1230 NA E1,875 156 166 186 1876 NA NA NA 876 127 NA 127 11,645 1230 NA E1,875 156 166 186 1987 Total 852 NA NA NA 852 127 NA 127 11,645 1230 NA E1,875 156 166 1898 Total 852 NA NA NA 852 128 NA 127 11,6576 282 NA 12,886 166 1898 Total 852 NA NA 855 123 NA 127 11,676 282 NA 12,836 170 1898 Total 581 6 56 642 137 3 842 11,90 275 2 1,467 73 1990 Total 581 6 56 642 137 3 842 11,90 275 2 1,467 73 1992 Total 613 6 58 6 677 139 3 842 11,90 275 2 1,467 73 1992 Total 644 3 47 1,255 288 2 1,556 89 1993 Total 548 7 62 616 44 3 47 1,255 288 2 1,556 89 1994 Total 5537 6 64 607 45 4 49 1,342 318 3 1,663 1995 Total 595 7 66 668 49 5 54 1,433 37 18 33 1,663 1995 Total 595 7 66 668 49 5 54 1,441 363 3 1,807 84 1997 Total 418 33 7 6 5 506 7 45 6 55 50 1,402 322 31 1,727 117 1996 Total 357 8 65 499 477 7 54 1,554 333 33 33 1,807 84 1997 Total 333 7 8 65 499 477 7 54 1,564 312 3 1,879 117 1997 Total 418 8 64 498 51 7 7 58 1,711 291 42 1,007 122 1000 January A37 A1 A5 A43 A4 A1 A5 A44 A1 A5 A144 A24 A(s) A189 12 June A37 A1 A5 A43 A4 A1 A5 A44 A1 A5 A144 A24 A(s) A189 12 June A37 A1 A5 A43 A4 A1 A5 A144 A24 A(s) A189 12 June A37 A1 A5 A43 A4 A1 A5 A144 A24 A(s) A189 12 June A37 A1 A5 A43 A4 A1 A5 A144 A24 A(s) A189 12 June A37 A1 A5 A43 A4 A1 A5 A144 A24 A(s) A189 12 June A37 A1 A5 A43 A4 A1 A5 A144 A24 A(s) A189 12 June A37 A1 A5 A43 A4 A1 A5 A144 A24 A(s) A189 12 June A37 A1 A5 A43 A4 A1 A5 A144 A24 A(s) A189 12 June A37 A1 A5 A43 A4 A1 A5 A144 A24 A(s) A189 12 June A37 A1 A5 A43 A4 A1 A5 A144 A24 A(s) A189 12 June A37 A1 A5 A43 A4 A1 A5 A144 A24 A(s) A189 12 June A37 A1 A5 A43 A4 A1 A5 A144 A24 A(s) A189 12 June A37 A1 A5 A43 A4 A1 A5 A144 A1 A5 A144 A24 A(s) A189 12 June A37 A1 A5 A43 A4 A1 A5 A144 A1 A5 A144 A24 A(s) A189 11 June A37 A1 A5 A43 A4 A1 A1 A5 A144 A24 A(s) A189 11 June A37 A1 A5 A43 A4 A1 A1 A5	2 Total													2,612
1984 Total 923 NA NA 923 22 NA 22 1,679 204 NA 1,883 43 91985 Total 889 NA NA NA 1876 127 NA 124 1,645 1230 NA 61,875 128 1986 Total 1876 NA NA 1876 127 NA 127 11,610 1256 NA 61,858 65 1987 Total 852 NA NA 852 129 NA 129 11,576 282 NA 1,858 69 1988 Total 918 5 53 976 134 3 677 11,625 1308 NA 61,858 179 1799 Total 61 55 66 642 137 3 3 640 1,259 27 2 1,657 62 1466 71 1990 Total 61 66 55 642 137 3 3 640 1,259 27 2 1,527 63 1991 Total 61 66 55 642 137 3 3 640 1,259 27 2 1,527 63 1993 Total 548 6 6 55 642 137 3 3 640 1,259 27 2 1,527 63 1993 Total 548 6 6 55 66 642 137 3 3 640 1,255 288 2 1,1565 83 1993 Total 548 6 6 55 66 66 688 49 5 5 64 1,424 31 424 318 3 1,566 97 1995 Total 557 6 64 667 45 45 49 1,424 318 3 1,566 97 1995 Total 595 7 66 668 49 5 5 54 1,441 363 3 1,857 11997 Total 433 7 65 506 47 65 506 47 6 53 1,513 338 3 1,854 109 1998 Total 444 8 64 486 51 7 58 1,494 1997 Total 443 8 64 486 51 7 58 1,711 291 4 2,007 122 2000 January A37 A1 A5 A43 A4 A1 A5 A144 A24 A6	3 Total													2,827
1985 Total	4 Total											1,883	43	2,871
1986 Total	5 Total	899	NA	NA	1899	124	NA	124	1,645	1230	NA	^E 1,875	152	2,850
1988 Total		876	NA	NA	¹876		NA		1,610	1256	NA	^E 1,866	¹ 60	2,829
1989 Total 918 5 53 976 34 3 ±37 1,394 250 2 1,646 71 1990 Total 581 6 56 642 137 3 ±40 1,254 271 2 1,527 63 1991 Total 613 6 58 677 139 3 ±42 1,190 275 2 1,467 73 1993 Total 645 6 60 711 142 3 ±45 1,233 289 2 1,525 83 1993 Total 548 7 62 616 44 3 47 1,255 288 2 1,546 97 1994 Total 557 6 64 607 45 4 49 1,342 318 3 1,663 199 1995 Total 596 7 65 667 45 5 50 1,402 322 3 1,727 117 1996 Total 595 7 66 668 49 5 5 54 1,441 363 3 1,877 1997 Total 337 7 65 506 47 6 53 1,513 338 3 1,854 106 1998 Total 387 8 65 459 47 7 7 54 1,564 312 3 1,879 117 1999 Total 387 8 65 459 47 7 7 54 1,754 312 3 1,879 117 1999 Total 414 8 64 486 51 7 58 1,711 291 4 2,007 122 2000 January	7 Total			NA								1,858	69	2,808
1989 Total 918 5 53 976 34 3 ±37 1,394 250 2 1,646 71 1990 Total 581 6 56 642 137 3 ±40 1,254 271 2 1,527 63 1991 Total 613 6 58 677 139 3 ±42 1,190 275 2 1,467 73 1993 Total 645 6 60 711 142 3 ±45 1,233 289 2 1,525 83 1993 Total 548 7 6 62 616 44 3 47 1,255 288 2 1,546 97 1994 Total 557 6 64 667 45 5 50 1,402 322 3 1,727 117 1995 Total 596 7 65 667 45 5 50 1,402 322 3 1,727 117 1996 Total 595 7 66 668 49 5 5 54 1,441 363 3 1,857 1997 Total 337 8 65 506 47 6 53 1,513 338 3 1,854 106 1998 Total 387 8 65 459 47 7 7 54 1,564 312 3 1,879 117 1999 Total 41 8 64 486 51 7 58 1,711 291 4 2,007 122 2000 January	8 Total											¹ 1,933		2,920
1991 Total												1,646		2,729
1992 Total	0 Total							⁻ 40						2,272
1993 Total 548 7 62 616 44 3 47 1,255 288 2 1,546 97 1994 Total 537 6 64 607 45 4 49 1,342 318 3 1,663 109 1995 Total 596 7 65 667 45 5 50 1,402 322 3 1,727 117 1995 Total 596 7 65 6668 49 5 54 1,441 363 3 1,807 84 1997 Total 433 7 65 506 47 6 53 1,513 338 3 1,854 106 1998 Total 387 8 65 459 47 7 54 1,554 332 3 1,879 117 1999 Total 414 8 64 486 51 7 58 1,711 291 4 2,007 122 2000 January								E 42						2,259
1994 Total 537 6 64 607 45 4 99 1,342 318 3 1,663 109 1995 Total 596 7 65 667 45 5 50 1,402 322 33 1,727 117 1995 Total 595 7 66 668 49 5 5 54 1,441 363 3 1,807 84 1997 Total 433 7 65 506 47 6 53 1,513 338 3 1,854 106 1998 Total 387 8 65 459 47 7 54 1,564 312 3 1,879 117 1999 Total 414 8 64 486 51 7 58 1,711 291 4 2,007 122 122 12000 January														2,365
1995 Total	3 TOTAL													2,307 2.428
1996 Total 595 7 66 668 49 5 54 1,441 363 3 1,807 84 1997 Total 433 7 65 506 47 6 53 1,513 338 3 1,807 84 1998 Total 387 8 65 459 47 7 54 1,564 312 3 1,879 117 1999 Total 414 8 64 486 51 7 58 1,711 291 4 2,007 122 2000 January	4 10tal													2,420
1997 Total	5 Total													2,561
1998 Total 387 8 65 459 47 7 54 1,564 312 3 1,879 117 1999 Total 414 8 64 486 51 7 58 1,711 291 4 2,007 122 2000 January	7 Total													2,518
1999 Total	8 Total													2,509
February	9 Total												122	2,673
March	0 January										A (s)		12	228
April		A 34		^A 5					A 135		^A (s)	A 158		212
May		A 37		^ 5	A 43	A 4		^ 5	A 144	A 24		A 169		228
June		A 36						A 5	A 139	A 23		A 163		220
July		^ 3/ A ac			^ 43 A 44	^4 A4		^ 5 A F	^ 144 A 420	^ 24 A 22	^ (S)	^ 169		228 218
August		A 27							A 1 1 1 1		A (s)	A 160		218
September				AF					A 144		A (c)	A 160		229
October A 37 A 1 A 5 A 43 A 4 A 1 A 5 A 144 A 24 A (s) A 169 13 November A 36 A 1 A 5 A 41 A 4 A 1 A 5 A 139 A 23 A (s) A 169 14 Total E 433 E 9 E 62 E 503 E 52 E 8 E 60 E 1,702 E 287 E 4 E 1,993 139 2001 January A 37 A 1 A 5 A 43 A 4 A 1 A 5 A 145 A 24 A (s) A 169 15 February A 33 A 1 A 5 A 39 A 4 A 1 A 5 A 145 A 24 A (s) A 169 15 February A 33 A 1 A 5 A 43 A 4 A 1 A 5 A 145 A 24 A (s) A 169 15 February A 36 A 1 A 5 A 43 A 4 A 1 A 5 A 140 <td>Sentember</td> <td>A 36</td> <td></td> <td>A 5</td> <td></td> <td>A 4</td> <td></td> <td></td> <td>A 139</td> <td>A 23</td> <td>A (s)</td> <td>A 163</td> <td></td> <td>223</td>	Sentember	A 36		A 5		A 4			A 139	A 23	A (s)	A 163		223
November A 36 A 1 A 5 A 41 A 4 A 1 A 5 A 139 A 23 A (s) A 163 13 December A 37 A 1 A 5 A 43 A 4 A 1 A 5 A 144 A 24 A (s) A 169 14 Total E 433 E 9 E 62 E 503 E 52 E 8 E 60 E 1,702 E 287 E 4 E 1,993 139 2001 January A 37 A 1 A 5 A 43 A 4 A 1 A 5 A 145 A 24 A (s) A 169 15 February A 33 A 1 A 5 A 39 A 4 A 1 A 5 A 145 A 24 A (s) A 169 15 Horri A 37 A 1 A 5 A 43 A 4 A 1 A 5 A 145 A 24 A (s) A 169 12 April A 36 A 1 A 5 A 43 A 4 A 1 A 5 A 140		A 37			A 43	A 4			A 144	A 24	A (S)	A 169		230
December		A 36	A 1	A 5	A 41	A 4			A 139	A 23	A (S)	A 163		223
Total E433 E9 E62 E503 E52 E8 E60 E1,702 E287 E4 E1,993 139 2001 January A37 A1 A5 A43 A4 A1 A5 A145 A24 A(s) A169 15 February A33 A1 A5 A39 A4 A1 A5 A131 A22 A(s) A169 12 March A37 A1 A5 A43 A4 A1 A5 A145 A24 A(s) A169 12 April A36 A1 A5 A43 A4 A1 A5 A140 A24 A(s) A169 12 July A37 A1 A5 A43 A4 A1 A5 A145 A24 A(s) A169 12 July A37 A1 A5 A43 A4 A1 A5 A145 A24 A(s) A169 11	December	A 37	A 1	A 5		A 4	A 1		A 144	A 24	A (S)	A 169		230
February		E 433	E 9	E 62	E 503	E 52	E 8		E 1,702	E 287	E 4	E 1,993	139	2,695
March A37 A1 A5 A43 A4 A1 A5 A145 A24 A(s) A169 12 April A36 A1 A5 A41 A4 A1 A5 A140 A24 A(s) A169 12 May A37 A1 A5 A43 A4 A1 A5 A145 A24 A(s) A169 11 June A36 A1 A5 A43 A4 A1 A5 A140 A24 A(s) A169 11 June A36 A1 A5 A43 A4 A1 A5 A140 A24 A(s) A169 11 July A37 A1 A5 A43 A4 A1 A5 A145 A24 A(s) A169 11 August A37 A1 A5 A43 A4 A1 A5 A145 A24 A(s) A169 10							A 1				A (s)		15	232
April	February								^ 131		~ (s)			208
May	March										^ (S)			229
June A36 A1 A5 A41 A4 A1 A5 A140 A24 A(s) A164 12 July A37 A1 A5 A43 A4 A1 A5 A145 A24 A(s) A169 11 August A37 A1 A5 A43 A4 A1 A5 A145 A24 A(s) A169 10 September A36 A1 A5 A41 A4 A1 A5 A140 A24 A(s) A169 10 September A36 A1 A5 A41 A4 A1 A5 A140 A24 A(s) A169 10 October A37 A1 A5 A43 A4 A1 A5 A145 A24 A(s) A169 16 November A36 A1 A5 A43 A4 A1 A5 A145 A24 A(s) A169 13 <														221 228
July A 37 A 1 A 5 A 43 A 4 A 1 A 5 A 145 A 24 A (s) A 169 11 August A 37 A 1 A 5 A 43 A 4 A 1 A 5 A 145 A 24 A (s) A 169 10 September A 36 A 1 A 5 A 41 A 4 A 1 A 5 A 140 A 24 A (s) A 169 10 October A 37 A 1 A 5 A 41 A 4 A 1 A 5 A 145 A 24 A (s) A 169 16 November A 36 A 1 A 5 A 41 A 4 A 1 A 5 A 145 A 24 A (s) A 169 16 November A 36 A 1 A 5 A 41 A 4 A 1 A 5 A 140 A 24 A (s) A 169 16 Total E 433 E 9 E 62 E 503 E 52 E 8 E 60 E 1,702 <											A (S)			228
August A 37 A 1 A 5 A 43 A 4 A 1 A 5 A 145 A 24 A (s) A 169 10 September A 36 A 1 A 5 A 41 A 4 A 1 A 5 A 140 A 24 A (s) A 164 12 October A 37 A 1 A 5 A 43 A 4 A 1 A 5 A 145 A 24 A (s) A 169 16 November A 36 A 1 A 5 A 41 A 4 A 1 A 5 A 140 A 24 A (s) A 164 13 December A 37 A 1 A 5 A 43 A 4 A 1 A 5 A 145 A 24 A (s) A 164 13 December A 37 A 1 A 5 A 43 A 4 A 1 A 5 A 145 A 24 A (s) A 169 13 Total E 433 E 9 E 62 E 503 E 52 E 8 E 60 E 1,702 E 287 E 4 E 1,993 147 2002 January A 37 A 1														222
September	August			AF							A (e)	A 160		227
October A 37 A 1 A 5 A 43 A 4 A 1 A 5 A 145 A 24 A (s) A 169 16 November A 36 A 1 A 5 A 41 A 4 A 1 A 5 A 140 A 24 A (s) A 169 13 December A 37 A 1 A 5 A 43 A 4 A 1 A 5 A 145 A 24 A (s) A 169 13 Total E 433 E 9 E 62 E 503 E 52 E 8 E 60 E 1,702 E 287 E 4 E 1,993 147 2002 January A 37 A 1 A 5 A 43 A 4 A 1 A 5 A 145 A 24 A (s) A 169 13 February A 33 A 1 A 5 A 43 A 4 A 1 A 5 A 145 A 24 A (s) A 169 12 March A 37 A 1 A 5 A 43 A 4 A 1 A 5 A 145	September	A 36									A (s)	A 164		222
November	October	A 37	A 1											233
December		A 36	A 1		A 41	A 4	A 1		^A 140	^A 24	A (s)		13	223
Total E433 E9 E62 E503 E52 E8 E60 E1,702 E287 E4 E1,993 147 2002 January A37 A1 A5 A43 A4 A1 A5 A145 A24 A(s) A169 13 February A33 A1 A5 A39 A4 A1 A5 A131 A22 A(s) A153 12 March A37 A1 A5 A43 A4 A1 A5 A145 A24 A(s) A169 12 April A36 A1 A5 A41 A4 A1 A5 A140 A24 A(s) A169 12 May A37 A1 A5 A41 A4 A1 A5 A140 A24 A(s) A164 12 Ay A37 A1 A5 A43 A4 A1 A5 A145 A24 A(s) A164 12		A 37			A 43			A 5		^A 24	A (s)	A 169	13	230
February A33 A1 A5 A39 A4 A1 A5 A131 A22 A(s) A153 12 March A37 A1 A5 A43 A4 A1 A5 A145 A24 A(s) A169 12 April A36 A1 A5 A41 A4 A1 A5 A140 A24 A(s) A164 12 May A37 A1 A5 A43 A4 A1 A5 A145 A24 A(s) A169 14		E 433	E 9		^E 503	^E 52		^E 60	E 1,702		€4	E 1,993	147	2,703
March					A 43	A 4			A 145	A 24	A (s)	A 169	13	230
April		^ 33 A 37		^5			^1		^ 131		^ (S)	^ 153		208
May A37 A1 A5 A43 A4 A1 A5 A145 A24 A(s) A169 14								^ 5	^ 145 A 4 40		^ (S)	^ 169		229
5-Month Total A179 A4 A25 A208 A21 A3 A25 A704 A119 A2 A824 62			^ 1 A 4	^5 A =		^ 4 ^ 4	^ 1 A 4	^ 5	^ 14U	A 24	(S)	7 164 A 460		222
		A 179	A 4				A 3		A 704	A 119	A (S)		14 62	231 1,120
													61 55	1,118 1,117

^a Through 1988, includes industrial sector use of wood and waste to produce both useful thermal output and electricity. From 1989, includes the portion of nonutility power producers' use of renewable energy to produce useful thermal output; excludes the portion used to produce electricity, which is included under "Nonutility Power Producers" on Table 10.3b.
^b Wood only.
^c Geothermal heat pump and direct use energy.
^d Solar thermal direct use and photovoltaic energy. Includes small amounts of commercial sector use.

byproducts, tires, agricultural byproducts, closed loop biomass, fish oil, and straw. 9 Ethanol blended into motor gasoline.

NA=Not available. E=Estimate. (s)=Less than 0.5 trillion Btu. I=Interpolated value. A=Apportioned data: monthly estimates for 2000 and 2001 are created by dividing the annual value by the number of days in the year and then multiplying by the number of days in the month; temporary 2002 monthly estimates are created by dividing the 2000 annual value by 366 and multiplying by the number of days in the month. month.

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.

Solar triefma direct use and photovoltaic energy. Includes small amounts of commercial sector use.

^e Wood, wood waste, black liquor, red liquor, spent sulfite liquor, wood sludge, peat, railroad ties, and utility poles.

^f Municipal solid waste, landfill gas, methane, digester gas, liquid acetonitrile waste, tall oil, waste alcohol, medical waste, paper pellets, sludge waste, solid

Table 10.3a Renewable Energy Consumption by the Electric Power Sector (Part 1 of 2) (Trillion Btu)

			E	Electric Power Secto	r		
				Electric Utilities			
	Conventional Hydroelectric Power ^a	Wood b	Waste ^c	Geothermald	Solar ^e	Wind ^f	Total
1973 Total	2,827	1	2	43	0	NA	2,873
1974 Total	3,143	1	2	53	0	NA	3,199
1975 Total	3,122	(s)	2	70	0	NA	3,194
1976 Total	2,943	1	2	78	0	NA	3,024
1977 Total	2,301	3	2	77	0	NA	2,383
1978 Total	2,905	2	1	64	0	NA	2,973
1979 Total	2,897	3 3	2 2	84 110	0	NA NA	2,986
1980 Total	2,867 2,725	3	1	123	0	NA NA	2,982 2.852
1981 Total1982 Total	3,233	2	1	105	0	NA NA	3,341
1983 Total	3,494	2	2	129	0	(s)	3,627
1984 Total	3,353	5	4	165	(s)	(s)	3.527
1985 Total	2,937	8	7	198	(s)	(s)	3,150
1986 Total	3,038	5	7	219	(s)	(s)	3,270
1987 Total	2,602	8	7	229	(s)	(s)	2,846
1988 Total	2,302	10	8	217	(s)	(s)	2,536
1989 Total	2,765	10	10	197	(s)	(s)	2,983
1990 Total	2,948	8	13	181	(s)	(s)	3,151
1991 Total	2,923	8	14	170	(s)	(s)	3,114
1992 Total	2,521	8	13	169	(s)	(s)	2,712
1993 Total	2,774	9	11	158	(s)	(s)	2,953
1994 Total	2,549	8	13	145	(s)	(s)	2,714
1995 Total	3,056	7	10	99	(s)	(s)	3,173
1996 Total	3,423	8	12	110	(s)	(s)	3,553
1997 Total	3,535	8	13	115	(s)	(s)	3,670
1998 Total	3,195	7	14	109	(s)	(s)	3,325
1999 Total	3,103	7	14	36	(s)	(s)	3,159
2000 January	241	(s)	1	(s)	(s)	(s)	243
February	214	1	1	(s)	(s)	(s)	216
March	254	1	1	(s)	(s)	(s)	256
April	271	1	1	(s)	(s)	(s)	273
May June	261 239	1	1	(s) (s)	(s) (s)	(s) (s)	263 241
July	229	1	1	(s)	(s)	(s)	231
August	209	1	i	(s)	(s)	(s)	211
September	169	i	i	(s)	(s)	(s)	171
October	163	i	i	(s)	(s)	(s)	166
November	182	1	1	(s)	(s)	(s)	184
December	187	1	1	(s)	(s)	(s)	189
Total	2,619	7	14	`3´	(s)	(s)	2,644
2001 January	176	1	1	(s)	(s)	(s)	178
February	166	1	1	(s)	(s)	(s)	168
March	192	i	i	(s)	(s)	(s)	194
April	164	(s)	1	(s)	(s)	(s)	166
May	179	(s)	1	(s)	(s)	(s)	181
June	193	(s)	1	(s)	(s)	(s)	195
July	170	(s)	1	(s)	(s)	(s)	172
August	181	1	1	(s)	(s)	(s)	184
September	147	1	1	(s)	(s)	(s)	149
October	147	(s)	1	(s)	(s)	(s)	149
November	148	(s)	1	(s)	(s)	(s)	150
December	184	(s)	1	(s)	(s)	(s)	186
Total	2,047	б	13	3	(s)	1	2,070
2002 January	209	(s)	1	(s)	(s)	(s)	211
February	R 191	(s)	1	(s)	(s)	(s)	R 193
March	R 206	(s)	1	(s)	(s)	(s)	R 208
April	R 206	(s)	1	(s)	(s)	(s)	R 208
May	231	(s)	1	(s)	(s)	(s)	233
5-Month Total	1,042	2	5	1	(s)	1	1,052
2001 5-Month Total	877	3	6	1	(s) (s)	1	886
2000 5-Month Total	1,240	3	6	1	(S)	(s)	1,251

^a Through 1989, includes hydroelectricity generated by both conventional and pumped storage facilities; from 1990, includes only conventional hydroelectric generation.

b Wood, wood waste, black liquor, red liquor, spent sulfite liquor, wood sludge,

peat, railroad ties, and utility poles.

^c 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.

d Geothermal electricity net generation.
e Solar thermal and photovoltaic electricity net generation.
f 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 7.3 and A6.

Table 10.3b Renewable Energy Consumption by the Electric Power Sector (Part 2 of 2) (Trillion Btu)

						Electric P	ower Secto	r				
			Nonutili	ty Power Pro	oducersa				Electrici	ty Trade ^b		Florida
	Hydro-			Geo-					power ^c	Geo- thermal	Total Net	Electric Power Sector
	powerc	Wood ^d	Wastee	thermal [†]	Solarg	Windh	Total	Imports	Exports	Imports	Imports	Total
1973 Total 1974 Total 1975 Total 1976 Total 1976 Total 1977 Total 1978 Total 1980 Total 1981 Total 1982 Total	35 33 32 33 33 32 34 E 33 E 33	NA NA NA NA NA NA NA	NA NA NA NA NA NA NA	NA NA NA NA NA NA NA	NA NA NA NA NA NA NA	NA NA NA NA NA NA NA	35 33 32 33 32 34 533 E 33	175 161 117 114 210 220 233 260 379 343	27 28 53 25 29 15 23 43 32 37		148 133 64 89 182 204 211 217 347 306	3,056 3,365 3,291 3,146 2,597 3,209 3,230 3,232 3,680
1983 Total 1984 Total 1985 Total 1986 Total 1987 Total 1988 Total 1989 Total 1990 Total 1991 Total	E 33 E 33 E 33 E 33 E 33 E 33 E 33 90 100	NA NA NA NA NA 279 308 338	NA NA NA NA NA 94 124 151	NA NA NA NA 117 152 167	NA NA NA NA NA 7 8	NA NA NA NA NA 24 32 32	E 33 E 33 E 33 E 33 E 33 E 33 E 609 722 794	407 441 479 425 544 401 200 99	35 27 52 50 61 73 40 (s)	(;) (;) (;) (;) (;) (;) 11 11 15	372 414 428 375 483 328 171 110 153	4,032 3,974 3,611 3,678 3,362 2,897 3,763 3,763 4,061
1992 Total 1993 Total 1994 Total 1995 Total 1996 Total 1997 Total 1998 Total 1999 Total	97 117 135 151 169 183 150 202	360 370 382 369 372 347 321 382	171 180 184 199 202 200 207 E 267	174 198 205 201 207 191 201 280	7 9 8 8 9 9 9	30 31 36 33 35 33 31 46	838 905 951 960 994 963 918 E 1,186	201 238 309 291 306 281 269 280	(s) 11 (s) 17 7 37 46 73	19 18 27 19 14 (s) 1	219 246 337 293 313 244 225 208	3,769 4,104 4,002 4,426 4,861 4,877 4,468 4,553
2000 January	23 19 23 25 24 23 22 23 22 20 19 21	35 33 34 33 31 33 36 34 33 34 33 33 33	E 20 E 19 E 20 E 20 E 20 E 21 E 21 E 21 E 20 E 20 E 20 E 20	25 22 22 23 24 24 25 26 25 26 26 27 295	(s) (s) 1 1 1 1 1 1 1 (s)	4 4 4 5 5 4 4 4 5 4 5 5	E 107 E 98 E 105 E 106 E 105 E 104 E 109 E 108 E 105 E 105 E 105 E 105 E 105 E 105	i24 i26 i24 i25 i29 i30 i35 i36 i29 i18 i24 i23	i3 i2 i4 i5 i5 i6 i3 i4 i4 i12 56	i(s) i(s) i(s) i(s) i(s) i(s) i(s) i(s)	E 21 E 24 E 20 E 24 E 24 E 32 E 33 E 25 E 14 E 20 E 12 269	371 338 382 399 391 370 372 352 301 285 307 306 4,173
Pebruary February March April May June July August September October November December Total	17 18 20 25 22 21 15 12 10 10 11 15 198	35 28 30 29 30 30 33 34 32 34 32 32 32	E 24 E 23 E 26 E 28 E 27 E 27 E 29 E 28 E 27 E 27 E 27 E 28 E 27 E 28 E 29 E 324	27 24 25 23 23 24 24 24 24 24 25 288	E(S) E(S) E(S) E11 E11 E11 E11 E11 E19	3357676545545 59	E 106 E 97 E 106 E 112 E 109 E 109 E 108 E 105 E 98 E 100 E 99 E 106 RE 1,257	i22 i21 i22 i24 i28 i23 i22 i24 i11 i11 i20 244	i8 i14 i9 i7 i8 i7 i6 i7 i4 i5 i3	0 0 0 0 0 0 0 0	E 14 E 7 E 13 E 17 E 20 E 17 E 16 E 18 E 5 E 7 E 17	298 271 313 294 310 321 297 307 252 256 257 309 3,486
2002 January	14 R 18 R 22 R 32 30 117	35 R 48 R 39 R 37 38 197	E 28 RE 23 RE 24 RE 23 E 24 E 121	25 22 R 23 R 21 20 110	E 0 E 0 RE 1 RE 1 E 1 E 3	2 R 5 R 8 R 10 11 36	E 104 RE 115 RE 116 RE 124 E 124 E 584	i21 i17 i21 i21 i15 95	i4 i4 i8 i8 i8	0 0 0 0	E 17 E 13 E 13 E 14 E 7 E 64	332 R 321 R 336 R 346 365 1,701
2001 5-Month Total 2000 5-Month Total	103 114	152 166	E 127 E 99	121 116	2 3	24 22	^E 530 ^E 520	117 128	46 19	0	E 71 E 110	1,487 1,881

a Includes the portion of nonutility power producers' use of renewable energy to produce electricity; excludes the portion used to produce useful thermal output, which is included in "Industrial" on Table 10.2.

b Through 1988, all electricity imports and exports are included in "Hydropower." From 1989, includes only electricity imports and exports derived from hydroelectric power or geothermal energy.

c Conventional hydroelectric power.

d Wood, wood waste, black liquor, red liquor, spent sulfite liquor, wood sludge, peat, railroad ties, and utility poles.

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. For 1999 forward, data also include electricity net generation from batteries, chemicals, hydrogen, pitch, sulfur, and purchased steam.

f Geothermal electricity net generation.

g Solar thermal and photovoltaic electricity net generation.

h Wind electricity net generation.

i Included in "Hydropower Imports."

j 2000 and 2001 monthly data are estimated by allocating the annual values into the months in proportion to each month's share of the year's total electricity imports or exports (see Table 7.1). Monthly 2002 estimates use the 2001 shares.

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

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

Notes: Totals may not equal came of the providing.

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.

Sources for Table 10.2

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*, annual reports, Table 6, total industrial wood consumption, minus nonutility power producers' use of wood to produce electricity (see *MER* Table 10.3b). Includes revisions published in the EIA, *Annual Energy Review 2000*, Table 10.2a.

2001 forward—EIA, CNEAF, estimates.

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*, annual reports, Table 6, total waste consumption, minus electric utilities' and nonutility power producers' use of waste to produce electricity (see *MER* Tables 10.3a and 10.3b). Includes revisions published in the EIA, *Annual Energy Review 2000*, Table 10.2a.

2001 forward—EIA, CNEAF, estimates.

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*, Tables 2 and 28; and 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.

Sources for Table 10.3b

Nonutility Power Producers, Hydropower

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 7.4 and A6.

Nonutility Power Producers, All Other Fuels

1989 forward—Tables 7.4 and A6.

Electricity Trade

1973-1988—Tables 7.1 and A6.

1989-1991—EIA, Office of Coal, Nuclear, Electric and Alternate Fuels (CNEAF), estimates.

1992-1999—EIA *Renewable Energy Annual*, annual reports, Table 3. Includes revisions published in the EIA, *Annual Energy Review 2000*, Table 10.2b. 2000 forward—EIA, CNEAF, estimates.

Section 11. International Energy

Crude Oil Production. World crude oil production during May 2002 was 66 million barrels per day, up by 0.6 million barrels per day from the level in the previous month.

Organization of Petroleum Exporting Countries (OPEC) production during May 2002 averaged 26 million barrels per day, up by 0.9 million barrels per day from the level during the previous month. During May 2002, production increased in Iraq by 650 thousand barrels per day; Venezuela by 200 thousand barrels per day; Algeria by 30 thousand barrels per day; Iran, Kuwait, and Qatar each by 20 thousand barrels per day; and Libya by 10 thousand barrels per day. Production decreased in Nigeria by 60 thousand barrels per day; the United Arab Emirates by 10 thousand barrels per day. Production per day. Production remained unchanged in Indonesia.

Among the non-OPEC nations, production during May 2002 increased in Egypt by 37 thousand barrels per day; the United States by 21 thousand barrels per day; China by 13 thousand barrels per day; and Russia by 5 thousand barrels per day. Production decreased in Canada by 182 thousand barrels per day; Mexico by 42 thousand barrels per day; the United Kingdom by 26 thousand barrels per day; and Norway by 20 thousand barrels per day.

Petroleum Consumption. In March 2002, consumption in all Organization for Economic Cooperation and Development (OECD) countries was 47.2 million barrels per day, 3 percent¹ lower than the March 2001 rate. Comparing March rates in 2002 and 2001, consumption was higher in 2002 in Italy (+4 percent) and South Korea (+3 percent). The March 2002 consumption rate was lower in Japan (-7 percent); the United Kingdom and Germany (each -5 percent); Canada (-4 percent); France (-3 percent); and the United States (-2 percent), compared with the rate 1 year earlier.

Petroleum Stocks. For all OECD countries, petroleum stocks at the end of March 2002 totaled 3.8 billion barrels, 3 percent¹ higher than the ending stock level in March 2001. Stock levels were higher in March 2002 in Canada and South Korea (each +8 percent); the United States (+6 percent); Germany (+3 percent); and the United Kingdom (+1 percent). Stock levels were lower in Italy (-5 percent); France (-2 percent); and Japan (-1 percent), compared with levels 1 year earlier.

Nuclear Electricity Generation. Based on Nucleonics Week² information for May 2002, all reporting countries with nuclear capacity generated 174.0 gross terawatthours (one terawatthour equals 1 billion kilowatthours) of nuclear-generated electricity.

As of May 31, 2002, there were 441 operable nuclear generating units in the world.

¹ Percentage changes are based on unrounded data.

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Table 11.1a World Oil Production: OPEC Members

(Thousand Barrels per Day)

										United		
	Algeria	Indonesia	Iran	Iraq	Kuwait ^a	Libya	Nigeria	Qatar	Saudi Arabia ^a	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 1976 Average	983 1,075	1,307 1,504	5,350 5,883	2,262 2,415	2,084 2,145	1,480 1,933	1,783 2,067	438 497	7,075 8,577	1,664 1,936	2,346 2,294	26,771 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 1984 Average	968 1,014	1,343 1,412	2,440 2,174	1,005 1,209	1,064 1,157	1,105 1,087	1,241 1,388	295 394	5,086 4,663	1,149 1,146	1,801 1,798	17,497 17,442
1985 Average	1,014	1,325	2,174	1,433	1,023	1,057	1,495	394	3,388	1,140	1,796	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 1,214	1,592 1,504	3,312 3,429	305 425	190 1,058	1,483 1,433	1,892 1,943	395 423	8,115 8,332	2,386 2,266	2,375 2,371	23,275 24,398
1992 Average 1993 Average	1,162	1,511	3,540	512	1,852	1,433	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	2,083	1,446	2,332	649	8,562	2,316	3,315	28,320
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 January	^R 1,195	^R 1,417	R 3,444	2,215	1,962	1,330	2,010	695	7,863	R 2,264	2,790	R 27,185
February	^R 1,195	^R 1,388	R 3,504	2,595	2,015	1,380	2,060	705	7,865	^R 2,269	2,850	R 27,826
March	R 1,195	R 1,388	R 3,712	2,215	2,040	1,390	2,080	705	7,865	R 2,320	2,850	R 27,760
	R 1,235	R 1,417	R 3,653	2,655	2,100	1,400	2,140	715	8,100	R 2,400	2,900	R 28,715
May June	^R 1,245 ^R 1,255	^R 1,446 ^R 1,446	R 3,663 R 3,683	3,055 2,565	2,100 2,150	1,400 1,420	2,110 2,140	735 735	8,200	^R 2,400 ^R 2,299	2,930 2,950	^R 29,284 ^R 28,893
July	R 1,255	R 1,446	R 3,727	2,505	2,130	1,420	2,140	755 755	8,250 8,390	R 2,340	2,930	R 29,184
August	R 1,265	R 1,446	R 3,727	2,995	2,173	1,420	2,160	755	8,823	R 2,400	2,980	R 30,144
September	R 1,255	R 1,446	R 3,732	2,875	2,170	1,430	2,110	755	8,975	R 2,410	2,980	R 30,139
October	^R 1,275	R 1,417	R 3,812	3,005	2,210	1,440	2,210	760	8,800	R 2,431	3,050	R 30,410
November	R 1,270	R 1,407	R 3,807	2,815	2,215	1,440	2,260	765	8,900	R 2,436	3,050	R 30,365
December	R 1,285	R 1,412	R 3,881	1,355	2,210	1,445	2,265	765	8,800	R 2,441	3,080	R 28,940
Average	^R 1,244	^R 1,423	R 3,696	2,571	2,126	1,410	2,144	737	8,404	^R 2,368	2,949	R 29,072
2001 January	1,280	1,435	3,935	1,735	2,200	1,450	2,285	775	8,700	2,440	3,100	29,335
February	1,250	1,440	3,785	2,195	2,130	1,400	2,255	735	8,320	2,380	3,030	28,920
March	1,250	1,395	3,835	2,855	2,100	1,390	2,285	735	8,300	2,420	3,000	29,565
April	1,235	1,352	3,785	2,930	2,010	1,380	2,210	715	7,950	2,330	2,920	28,817
May	1,250	1,362	3,685	2,905	1,993	1,360	2,140	725 725	8,000	2,277	2,890	28,587
June July	1,270 1,280	1,382 1,370	3,785 3,875	1,105 2,145	2,030 2,020	1,370 1,380	2,205 2,140	735 735	8,050 8,250	2,260 2,240	2,900 2,890	27,092 28,325
August	1,280	1,360	3,785	2,143	2,020	1,380	2,140	735	8,070	2,240	2,880	28,824
September	1,250	1,350	3,655	2,673	1,970	1,350	2,360	685	7,800	2,150	2,720	27,963
October	1,230	1,340	3,535	2,911	1,950	1,320	2,350	685	7,670	2,120	2,750	27,861
November	1,240	1,340	3,535	2,805	1,940	1,310	2,350	665	7,670	2,120	2,740	27,715
December	1,240	1,310	3,491	2,025	1,940	1,310	2,290	655	7,600	2,120	2,750	26,731
Average	1,255	1,369	3,724	2,432	2,026	1,367	2,256	714	8,031	2,256	2,880	28,311
2002 January	1,206	1,310	3,385	2,315	1,850	1,260	2,150	625	7,300	2,040	2,630	26,071
February	1,200	1,280	3,365	2,545	1,803	1,280	2,100	625	7,210	2,030	2,600	26,038
March	1,220	1,280	3,385	2,515	1,850	1,290	2,120	635	7,310	2,035	2,620	26,260
April	1,230	1,270	3,375	1,215	1,860	1,300	2,130	655	7,455	2,050	2,530	25,070
May	1,260 1,224	1,270	3,395 3 381	1,865	1,880 1,840	1,310	2,070 2 114	675 643	7,450 7.347	2,040	2,730	25,945 25,879
5-Mo. Avg	1,224	1,282	3,381	2,088	1,849	1,288	2,114	643	7,347	2,039	2,623	25,879
2001 5-Mo. Avg	1,253	1,396	3,806	2,528	2,086	1,396	2,235	737	8,255	2,369	2,988	29,049
2000 5-Mo. Avg	1,213	1,412	3,596	2,546	2,043	1,380	2,080	711	7,979	2,331	2,864	28,155

^a Includes about one-half of the production in the Kuwait-Saudi Arabia Neutral Zone from 1973 through July 1990 and in June 1991. Kuwaiti Neutral Zone output was discontinued following Iraq's invasion of Kuwait on August 2, 1990, but was resumed in June 1991. In May 2002, Neutral Zone production by both Kuwait and Saudi Arabia totaled about 600 thousand barrels per day.

R=Revised.

Sources: See end of section.

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.

Table 11.1b World Oil Production: Persian Gulf Nations, Non-OPEC, and World

(Thousand Barrels per Day)

					Select	ed Non-Ol	PEC Produc	ers				
	Persian Gulf Nations ^a	Canada	China	Egypt	Mexico	Norway	Former U.S.S.R.	Russia	United Kingdom	United States	Total Non- OPEC	World
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	8,541	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	18,470	1,922	3,200	856	3,023	3,143	_	5,920	2,518	6,452	38,100	66,420
1998 Average	19,337	1,981	3,198	834	3,070	3,017	_	5,854	2,616	6,252	38,188	66,962
1999 Average	18,667	1,907	3,195	852	2,906	3,018	-	6,079	2,684	5,881	38,291	65,870
2000 January	18,481	1,979	3,250	^R 780	3,032	3,233	_	6,239	R 2,502	5,784	R 38,847	R 66,032
	18,991	1,979	3,280	R 775	2,897	3,348	_	6,248	R 2,431	5,764	R 38,833	R 66,659
February March		1,892	3,280	R 769	2,998	3,248	_	6,321	R 2,462	5,918	R 38,929	R 66,689
April		1,894	3,300	R 775	3,041	3,052	_	R 6,309	R 2,343	5,854	R 38,638	R 67,354
May		1,990	3,250	R 764	3,040	3,149	_	6,352	R 2,123	5,847	R 38,572	R 67,857
June		2,020	3,295	R 759	3,056	2,984	_	6,421	R 2,248	5,823	R 38,753	R 67,646
July	R 10 0/15	1,986	3,280	R 744	2,876	3,398	_	R 6,495	R 2,331	5,739	R 39,090	R 68,273
August		1,955	3,205	R 732	3,162	3,025	_	6,546	R 2,178	5,789	R 38,935	R 69,079
September		2,007	3,220	R 727	3,173	3,012	_	6,590	R 2,128	5,758	R 38,977	^R 69,116
October	R 21 055	1,961	3,210	R 722	2,861	3,247	_	6,711	R 2,145	5,809	R 39,147	R 69,557
November	R 20 975	2,029	3,206	R 717	2,965	3,327	_	6,737	R 2,196	5,833	R 39,737	R 70,102
December	R 10 490	2,023	3,212	R 714	3,043	3,336	_	6,771	R 2,218	5,855	R 39,899	R 68,839
Average	R 19,940	1,977	3,249	R 748	3,012	3,197	_	6,479	R 2,275	5,822	R 39,031	^R 68,103
	40.000	0.000		000				E 0 0==	0.000	5 7 00		00.040
2001 January	19,820	2,032	3,220	669	3,087	3,230	_	E 6,875	2,338	5,799	39,605	68,940
February	19,580	2,052	3,330	659	3,136	3,057	-	E 6,966	2,279	5,780	39,558	68,478
March	20,280	2,070	3,376	655	3,151	3,128	-	E 6,808 E 6,855	2,323	5,880	39,601	69,166
April	19,755	2,046	3,302	652	3,008	3,203	-		2,318	5,863	39,451	68,268
May	19,620	2,027	3,310	596	3,031	2,939	_	E 6,917	2,262	5,829	38,990	67,577
June	18,000	1,971	3,312	627	3,140	2,928	_	E 6,956	2,128	5,766 5,740	38,912	66,004
July	19,300	1,953	3,262	630	3,185	3,262	_	E 7,124	2,234	5,749 5,725	39,654	67,979
August	19,752	1,954	3,303	634	3,175	2,872	_	E 7,125	2,211	5,725	39,341	68,165
September	18,968	2,009	3,288	638	3,177	3,154	_	E 7,189	2,230	5,709	39,829	67,792
October	18,906	2,046	3,313	633	2,993	3,256	_	E 7,233	2,361	5,746	39,819	67,680
November	18,770	2,082	3,316	639	3,168	3,124		E 7,306	2,280	5,881	40,214	67,929
December Average	17,866 19,219	2,110 2,029	3,272 3,300	641 639	3,274 3,127	3,249 3,117	_	E 7,233 E 7,049	2,418 2,282	5,887 ^E 5,801	40,743 39,644	67,474 67,955
71701ago	.0,210	2,323	5,500	303	J, 121	0,111		.,545	_,_0_	0,001	00,044	0.,000
2002 January	17,550	2,107	3,311	627	3,253	3,079	-	E 7,017	2,356	E 5,934	40,360	66,431
February	17,613	2,210	3,342	629	3,142	3,150	_	E 7,094	2,319	^E 5,938	40,526	66,564
March	17,765	2,154	3,331	624	3,125	2,787	_	E 7,157	2,341	^E 5,914	R 40,118	R 66,378
April	16,645	^R 2,194	3,333	630	3,178	^R 3,157	_	E 7,179	2,309	E 5,887	^R 40,565	^R 65,635
May	17,340	2,012	3,346	667	3,136	3,137	_	^E 7,184	2,283	^E 5,908	40,301	66,246
5-Mo. Avg	17,383	2,134	3,332	636	3,167	3,060	-	E 7,127	2,322	E 5,916	40,370	66,248
2001 5-Mo. Avg 2000 5-Mo. Avg	19,816 19,244	2,045 1,949	3,307 3,272	646 772	3,082 3,003	3,112 3,205	_	^E 6,883 6,294	2,304 2,372	5,831 5,851	39,439 38,764	68,487 66,919

^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.

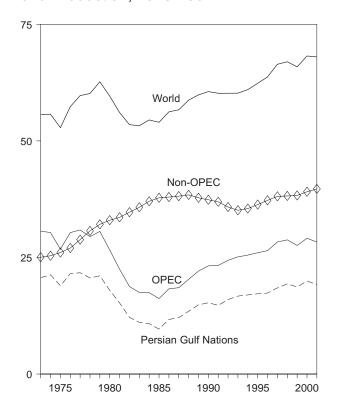
Notes: Crude oil includes lease condensate but excludes natural gas

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.

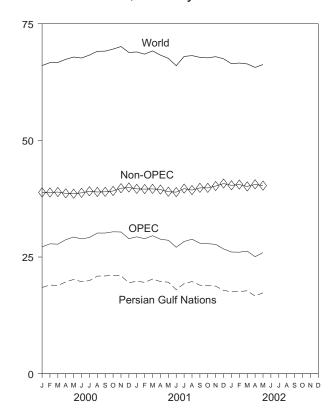
Figure 11.1 Crude Oil Production

(Million Barrels per Day)

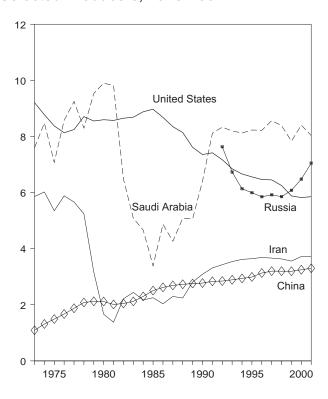
World Production, 1973-2001



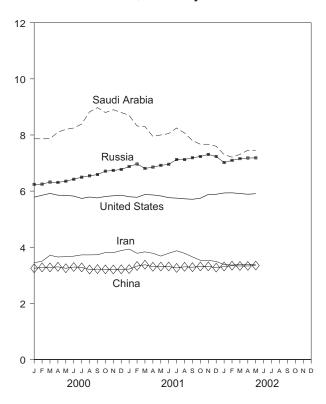
World Production, Monthly



Selected Producers, 1973-2001



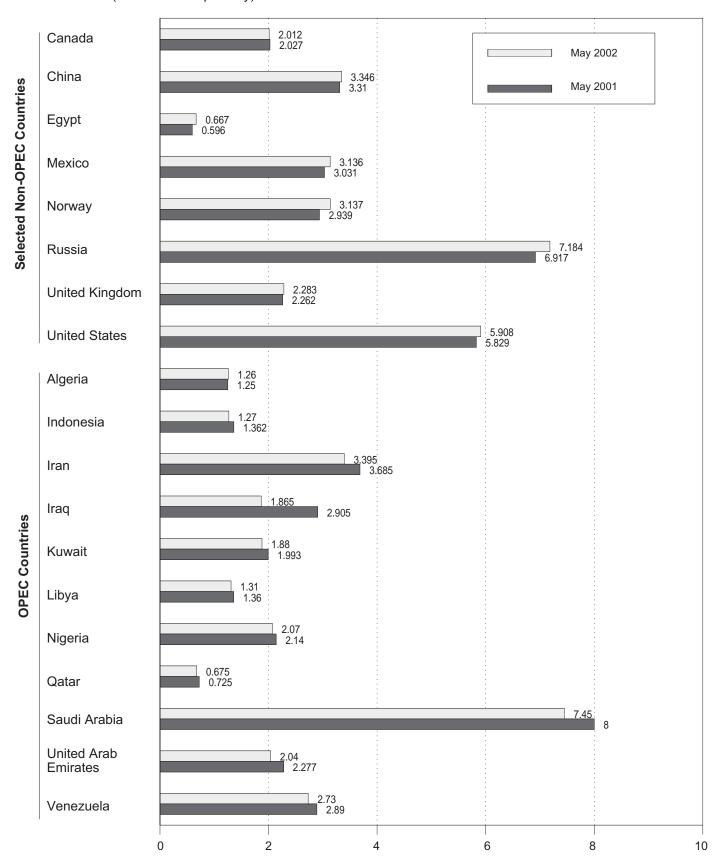
Selected Producers, Monthly



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 11.2 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.

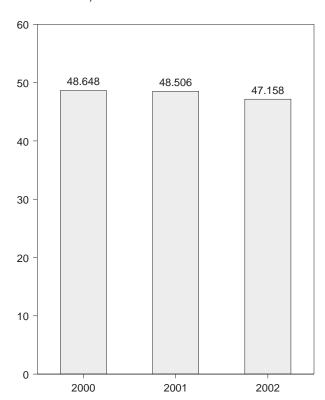
Figure 11.3 Petroleum Consumption in OECD Countries

(Million Barrels per Day)

Overview, 1973-2001

World OECD United States OECD Europe Japan

OECD Total, March



By Selected OECD Country

1980

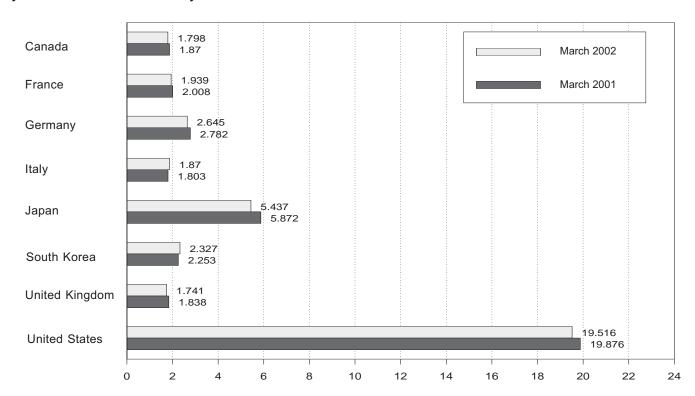
1985

1990

1995

2000

1975



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	66,094
1991 Average	1,622	1,935	2,828	1,863	5,284	1,202	1,801	16,714	13,827	2,751	41,400	66,733
1992 Average	1,643	1,926	2,843	1,937	5,446	1,456	1,803	17,033	14,073	2,773	42,424	66,941
1993 Average	1,688	1,875	2,900	1,852	5,401	1,690	1,815	17,237	14,140	2,826	42,982	67,143
1994 Average	1,727	1,833	2,879	1,841	5,674	1,856	1,837	17,718	14,226	2,966	44,167	68,439
1995 Average	1,755	1,896	2,875	2,048	5,711	2,027	1,845	17,725	14,756	2,989	44,962	70,037
1996 Average	1,797	1,935	2,911	2,058	5,867	2,183	1,845	18,309	14,964	2,953	46,072	71,595
1997 Average	1,923	1,957	2,915	1,908	5,728	2,260	1,805	18,620	15,009	3,084	46,626	73,062
1998 Average	1,947	2,030	2,921	1,945	5,528	1,930	1,789	18,917	15,335	3,228	46,885	73,790
1999 Average	2,029	2,027	2,836	1,841	5,587	2,075	1,739	19,519	15,169	3,313	47,692	75,300
2000 January	1,919	2,168	2,408	1,825	5,452	2,364	1,690	19,026	14,688	R 3,374	R 46,821	NA
February	2,175	2,144	2,727	1,986	6,394	2,401	1,780	19,635	15,637	^R 3,315	^R 49,557	NA
March	1,992	2,125	2,752	1,896	6,254	2,283	1,876	19,218	15,437	R 3,464	R 48,648	NA
April	1,885	1,950	2,662	1,775	5,233	2,138	1,631	18,816	14,479	^R 3,210	^R 45,761	NA
May	2,111	1,860	2,697	1,750	4,915	2,093	1,645	19,605	14,675	R 3,378	R 46,777	NA
June	2,077	1,969	2,717	1,909	4,930	2,001	1,677	20,054	14,983	R 3,306	^R 47,351	NA
July	2,022	1,970	2,759	1,812	5,271	1,832	1,616	19,696	14,609	R 3,203	R 46,634	NA
August	2,111	1,980	3,073	1,815	5,526	2,034	1,747	20,496	15,581	R 3,452	^R 49,200	NA
September	2,140	1,807	2,999	1,928	5,476	2,037	1,778	19,899	15,404	R 3,260	^R 48,216	NA
October	2,127	2,257	2,770	1,859	5,047	1,978	1,773	19,798	15,540	R 3,300	R 47,790	NA
November	2,199	2,041	2,868	1,885	5,616	2,272	1,813	19,328	15,499	R 3,347	^R 48,261	NA
December	2,129	1,976	2,874	1,977	6,246	2,336	1,626	20,814	15,241	R 3,320	^R 50,088	NA
Average	2,073	2,021	2,775	1,867	5,528	2,146	1,721	19,701	15,146	R 3,328	R 47,922	76,021
2001 January	R 1,987	R 2,165	R 2,692	R 1,824	R 6,059	R 2,443	R 1,723	20,092	R 15,239	R 3,287	R 49,108	NA
February	R 2,009	R 2,098	R 2,638	R 1,915	R 6,391	R 2,299	R 1,725	19,689	15,220	R 3,369	R 48,977	NA
March	R 1,870	R 2,008	^R 2,782	^R 1,803	^R 5,872	R 2,253	^R 1,838	19,876	^R 15,184	^R 3,449	R 48,506	NA
April	^R 1,781	R 2,009	^R 2,699	R 1,709	^R 5,120	^R 1,997	^R 1,742	19,729	^R 14,678	^R 3,212	^R 46,517	NA
May	^R 1,904	R 1,894	^R 2,715	R 1,801	^R 4,914	^R 1,992	^R 1,692	19,501	^R 14,792	R 3,393	R 46,496	NA
June	R 1.883	R 1,963	R 2,877	R 1,771	R 4,850	R 2,048	R 1,664	19,561	R 14,888	R 3,299	^R 46,529	NA
July	^R 1,897	R 2,046	^R 2,978	^R 1,912	^R 5,131	R 1,827	^R 1,656	19,919	^R 15,338	R 3,254	^R 47,366	NA
August	R 2,045	^R 1,984	R 3,058	R 1,824	^R 5,210	R 1,922	R 1,690	20,153	^R 15,419	R 3,320	R 48,069	NA
September	^R 1,795	R 2,081	R 2,913	R 2,027	R 4,962	R 2,164	R 1,769	19,016	R 15,791	3,094	R 46,823	NA
October	R 1.927	R 2,056	R 2,882	R 1,902	R 4,939	R 1,939	R 1,683	19,824	R 15,514	R 3,318	R 47,460	NA
November	^K 1,974	R 2,076	R 2,925	R 1,905	R 5,480	R 2,265	R 1,762	19,396	R 15,865	R 3,275	R 48,255	NA
December	R 1,850	R 2,026	^R 2,587	^R 1,999	^R 6,171	^R 2,549	^R 1,654	19,003	^R 15,324	R 3,246	R 48,142	NA
Average	R 1,910	R 2,033	^R 2,813	R 1,866	^R 5,421	R 2,140	R 1,716	19,649	R 15,271	R 3,293	R 47,684	76,008
	R 1,920	R 2,199	R 2,586	R 1,951	R 5,691	R 2,446	R 1,655	19,170	R 15,332	R 3,272	R 47,832	NA
	R 2,104	R 2,051	R 2,678	R 2,037	R 6,014	R 2,312	R 1,725	19,475	R 15,317	R 3,453	R 48,674	NA
March 3-Mo. Avg.	1,798 1,935	1,939 2,063	2,645 2,635	1,870 1,950	5,437 5,704	2,327 2,363	1,741 1,706	19,516 19,384	14,853 15,162	3,228 3,313	47,158 47,862	NA NA
2001 3-Mo. Avg	1,954	2,090	2,706	1,845	6,098	2,333	1,763	19,892	15,214	3,368	48,860	NA
2000 3-Mo. Avg	2,025	2,146	2,627	1,901	6,025	2,348	1,782	19,285	15,246	3,386	48,315	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

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.

b "OÉCD 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.

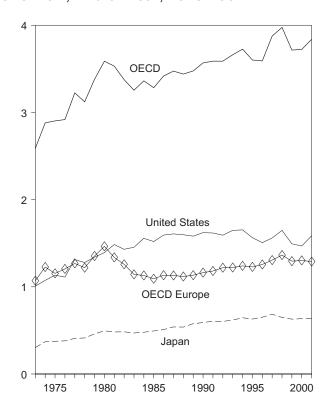
 $^{^{\}rm C}$ "Other OECD" consists of Australia, Mexico, New Zealand, and the U.S. Territories.

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

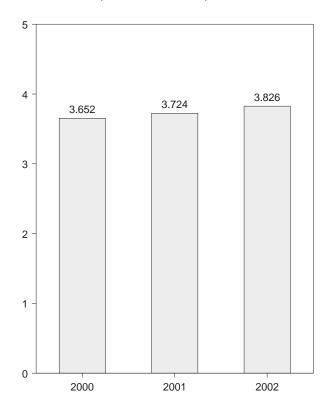
Figure 11.4 Petroleum Stocks in OECD Countries

(Billion Barrels)

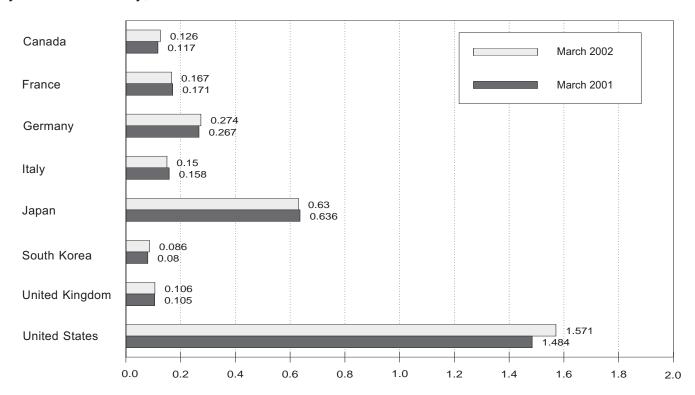
Overview, End of Year, 1973-2001



OECD Stocks, End of Month, March



By Selected Country, End of Month



Notes: • OECD is the Organization for Economic Cooperation and Development

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® Italy Japan Korea Kingdom States Europe® OEC	r	Other	OECD	United	United	South						
974 Year		OECD			l I		Japan	Italy	Germanya	France	Canada	
974 Year	7 2,588	67	1.070	1.008	156	NA	303	152	181	201	140	973 Year
1975 Year	,	64										
1976 Year		67										
1977 Year		68	,								153	
1979 Year	3,224	68	1,268	1,312	148	NA	409	161	225	239	167	
1980 Year	3,122	68	1,219	1,278	157	NA	413	154	238	201	144	1978 Year
1981 Year	3,379	75	1,353	1,341	169	NA	460	163	272	226	150	1979 Year
1982 Year	3,587	72	1,464	1,392	168	NA	495	170	319	243	164	1980 Year
1983 Year	7 3,531	67	1,337	1,484	143	NA	482	167	297	214	161	1981 Year
1984 Year	3,376	68	1,258	1,430	125	NA	484	179	272	193	136	1982 Year
1985 Year	3,255	68	1,142	1,454	118	NA	470	149	249	153	121	
1986 Year	3,362	69	1,130	1,556	112	NA	479	159			128	1984 Year
1987 Year		66										1985 Year
1988 Year		72	1,133	1,593	124	NA		155			111	1986 Year
1989 Year 114 138 271 164 577 NA 118 1,581 1,133 1990 Year 121 140 265 172 590 NA 112 1,621 1,163 1991 Year 121 140 265 172 590 NA 112 1,621 1,163 1991 Year 119 153 288 160 606 NA 119 1,617 1,181 1992 Year 1007 146 310 174 603 NA 113 1,592 1,219 1993 Year 1015 158 309 163 618 NA 118 1,647 1,221 1994 Year 119 158 312 164 645 NA 115 1,653 1,240 1995 Year 1009 159 301 162 630 NA 107 1,563 1,228 1995 Year 1009 159 301 162 630 NA 107 1,563 1,228 1996 Year 103 158 300 152 651 NA 108 1,507 1,256 1997 Year 115 164 298 147 685 88 105 1,560 1,306 1998 Year 118 161 321 153 649 85 109 1,647 1,364 11999 Year 109 163 287 148 629 84 105 1,493 1,294 11999 Year 100 163 287 148 629 84 105 1,493 1,294 11 1999 Year 100 163 287 148 629 84 105 1,493 1,294 11 11 11 11 11 11 11 11 11 11 11 11 11	-,	71										
1990 Year	-,	71	,									
1991 Year		71										
1992 Year	-,	73	1,163	1,621								1990 Year
1993 Year	3,588	65	1,181	1,617	119	NA	606	160			119	1991 Year
1994 Year 119 158 312 164 645 NA 115 1,653 1,240 1995 Year 109 159 301 162 630 NA 107 1,563 1,228 1995 Year 103 158 300 152 651 NA 108 1,507 1,256 1997 Year 115 164 298 147 685 88 105 1,560 1,306 11 1998 Year 109 163 287 148 629 84 105 1,560 1,306 11 1999 Year 109 163 287 148 629 84 105 1,493 1,294 11 1999 Year 109 163 287 148 629 84 105 1,493 1,294 11 1999 Year 109 163 287 148 629 84 105 1,493 1,294 11 11 11 11 11 11 11 11 11 11 11 11 11		67										
1995 Year 109 159 301 162 630 NA 107 1,563 1,228 1996 Year 103 158 300 152 651 NA 108 1,507 1,256 1997 Year 115 164 298 147 685 88 105 1,560 1,306 1. 1998 Year 118 161 321 153 649 85 109 1,647 1,364 1 1999 Year 109 163 287 148 629 84 105 1,493 1,294 1 2000 January 108 166 296 153 622 80 105 1,477 1,287 1 February 108 167 288 149 613 79 106 1,476 1,278 1 April 110 170 285 154 606 79 106 1,476 1,278 1 May <td>-,</td> <td>69</td> <td>,</td> <td>,</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	-,	69	,	,								
1996 Year		69										
1997 Year	-,	71										
1998 Year		74										
1999 Year	-,	122	,	,								
108		112										
February 108 167 288 149 613 79 106 1,466 1,281 1: March 110 170 285 154 606 79 106 1,476 1,278 11 April 112 171 281 152 618 79 104 1,505 1,259 1: May 110 172 280 148 634 80 98 1,518 1,247 1: June 112 174 278 152 632 87 99 1,526 1,263 1: July 117 171 280 150 639 103 106 1,540 1,280 1: August 117 171 274 153 639 87 102 1,532 1,272 1: September 117 173 274 156 627 92 99 1,527 1,283 1: October 114 170 276 160 642 97 102 1,507 1,277 1: November 116 171 271 162 645 99 101 1,505 1,283 1: December 112 174 270 157 634 89 103 1,468 1,302 1: February 113 168 273 163 628 80 100 1,479 1,292 1: February 111 172 275 159 620 86 R 102 1,473 R 1,293 1: March 117 171 266 156 647 80 R 103 1,555 R 1,283 1: April 116 171 266 156 647 80 R 103 1,555 R 1,283 1: May 119 171 266 156 647 80 R 103 1,555 R 1,283 1: June 116 171 259 149 641 83 R 107 1,563 R 1,278 1. August 123 168 256 156 647 93 R 104 1,548 R 1,284 1: August 123 168 256 156 647 93 R 104 1,548 R 1,284 1: September 129 167 255 159 670 95 R 111 1,577 1,281 1:	3,715	106	1,294	1,493	105	84	629	148	287	163	109	1999 Year
March 110 170 285 154 606 79 106 1,476 1,278 10 April 112 171 281 152 618 79 104 1,505 1,259 1 May 110 172 280 148 634 80 98 1,518 1,247 1 June 112 174 278 152 632 87 99 1,526 1,263 11 July 117 171 280 150 639 103 106 1,540 1,280 1 August 117 171 274 153 639 87 102 1,532 1,272 11 September 117 173 274 156 627 92 99 1,527 1,283 11 October 114 170 276 160 642 97 102 1,507 1,277 1	- ,	110										
April 112 171 281 152 618 79 104 1,505 1,259 1 May 110 172 280 148 634 80 98 1,518 1,247 1 June 112 174 278 152 632 87 99 1,526 1,263 10 July 117 171 280 150 639 103 106 1,540 1,280 11 August 117 171 274 153 639 87 102 1,532 1,272 10 September 117 173 274 156 627 92 99 1,527 1,283 11 October 114 170 276 160 642 97 102 1,507 1,277 1 November 116 171 271 162 645 99 101 1,505 1,283 11 December 112 174 270 157 634 89 103 1,		113										
May 110 172 280 148 634 80 98 1,518 1,247 1 June 112 174 278 152 632 87 99 1,526 1,263 11 July 117 171 280 150 639 103 106 1,540 1,280 1 August 117 171 274 153 639 87 102 1,532 1,272 11 September 117 173 274 156 627 92 99 1,527 1,283 11 October 114 170 276 160 642 97 102 1,507 1,277 1 November 116 171 271 162 645 99 101 1,505 1,283 11 December 112 174 270 157 634 89 103 1,468 1,302 1	- ,	103		, -								
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February 111 172 275 159 620 86 R 102 1,473 R 1,293 1 March 117 171 267 158 636 80 R 105 1,484 R 1,292 1 April 116 171 268 159 646 86 R 103 1,522 R 1,283 11 May 119 171 266 156 647 80 R 103 1,555 R 1,280 11 June 116 171 259 149 641 83 R 107 1,563 R 1,278 11 July 123 164 258 149 636 90 107 1,568 1,271 1 August 123 168 256 156 647 93 R 104 1,548 R 1,284 1 September 129 167 253 152 654 92 R 102 1,579 R 1,282 1<	7 3,723	117	1,302	1,468	103	89	634	157	270	174	112	December
March 117 171 267 158 636 80 R 105 1,484 R 1,292 1 April 116 171 268 159 646 86 R 103 1,522 R 1,283 11 May 119 171 266 156 647 80 R 103 1,555 R 1,280 11 June 116 171 259 149 641 83 R 107 1,563 R 1,278 11 July 123 164 258 149 636 90 107 1,568 1,271 1 August 123 168 256 156 647 93 R 104 1,548 R 1,284 1 September 129 167 253 152 654 92 R 102 1,579 R 1,282 1 October 129 170 255 151 670 95 R 111 1.577 1,281 11		116		, -								
April 116 171 268 159 646 86 R 103 1,522 R 1,283 11 May 119 171 266 156 647 80 R 103 1,555 R 1,280 11 June 116 171 259 149 641 83 R 107 1,563 R 1,278 1 July 123 164 258 149 636 90 107 1,568 1,271 1 August 123 168 256 156 647 93 R 104 1,548 R 1,284 1 September 129 167 253 152 654 92 R 102 1,579 R 1,282 12 October 129 170 255 151 670 95 R 111 1.577 1,281 11		118	^R 1,293									
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June 116 171 259 149 641 83 R 107 1,563 R 1,278 1 July 123 164 258 149 636 90 107 1,568 1,271 1 August 123 168 256 156 647 93 R 104 1,548 R 1,284 1 September 129 167 253 152 654 92 R 102 1,579 R 1,282 12 October 129 170 255 151 670 95 R 111 1.577 1,281 11		107			^R 103							
July 123 164 258 149 636 90 107 1,568 1,271 1 August 123 168 256 156 647 93 R 104 1,548 R 1,284 1 September 129 167 253 152 654 92 R 102 1,579 R 1,282 1 October 129 170 255 151 670 95 R 111 1.577 1,281 11		109		,								
August		113										June
September		112			107							
October		116		,	^K 104							
Uctober		122										
N I P407 406 067 460 060 060 060 060 060 060 060 060 060		119									129	
		113										
December	R 3,836	113	1,290	1,586	112	88	634	151	269	167	[™] 124	December
		113		,								
		115										
March	3,826	110	1,303	1,571	106	86	630	150	274	167	126	March

^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.

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.

b "OECD Europe" consists of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, and the United Kingdom, and, for 1997 forward, Czech Republic, Hungary, and Poland.

¹⁹⁹⁷ forward, Czech Republic, Hungary, and Poland.

^c "Other OECD" consists of Australia, New Zealand, and the U.S. Territories, and, for 1997 forward, Mexico.

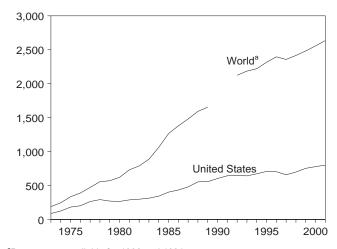
and, for 1997 forward, Mexico.

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

Figure 11.5 Nuclear Electricity Gross Generation

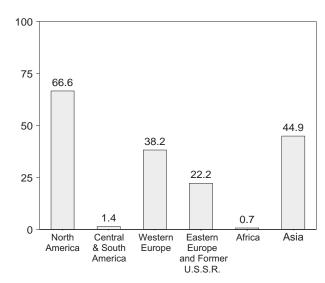
(Billion Kilowatthours)

U.S. and World, 1973-2001

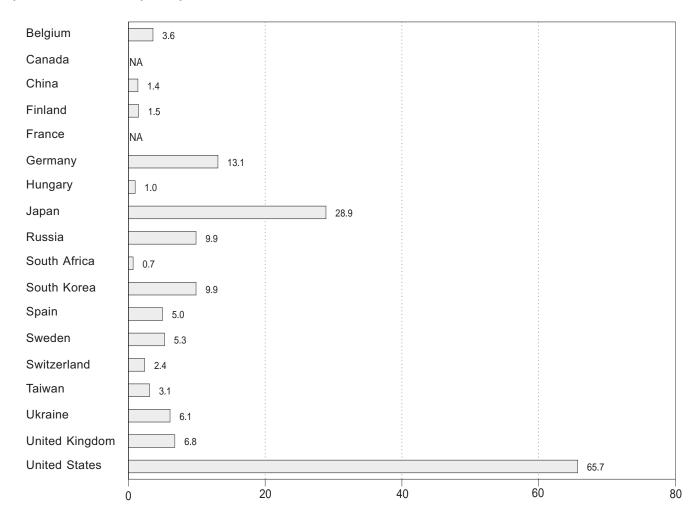


^aData are not available for 1990 and 1991. Eastern Europe and the Former U.S.S.R. are included beginning in 1992.

By Region, May 2002



By Selected Country, May 2002



NA=Not available.
Note: Because vertical scales differ, graphs should not be compared.
Web Page: http://www.eia.doe.gov/emeu/mer/inter.html.
Sources: Tables 11.4a-11.4e.

Table 11.4a Nuclear Electricity Gross Generation: Regions and World

	North America	Central and South America	Western Europe ^a	Eastern Europe and Former U.S.S.R. ^a	Africa	Asiaa	World ^{a,b}
	America	Journ America	Luiope	0.0.0.11.	Anica	Asia	World
1973 Total	103.1	_	73.9	NA	_	12.3	189.3
1974 Total	139.7	1.0	83.9	NA	-	21.4	246.0
1975 Total	195.5	2.5	111.7	NA	-	24.4	334.1
1976 Total	219.8	2.6	126.2	NA	-	40.3	388.9
1977 Total 1978 Total	290.8 325.4	1.6 2.9	148.1 166.9	NA NA	_	31.5 60.6	472.0 555.9
1979 Total	309.0	2.7	184.3	NA NA	_	74.7	570.7
1980 Total	305.8	2.3	214.2	NA NA	_	97.4	619.8
1981 Total	331.8	2.8	293.4	NA	_	102.9	730.9
1982 Total	341.2	1.9	321.8	NA	_	123.6	788.5
1983 Total	366.6	3.6	377.2	NA	_	140.1	887.5
1984 Total	397.6	6.6	485.4	NA	4.2	167.7	1,061.5
1985 Total	465.6	9.1	582.8	NA	5.9	202.0	1,265.4
1986 Total	508.8	5.8	631.5	NA	9.3	223.6	1,378.9
1987 Total	560.1	6.2 5.5	648.3	NA NA	6.6	259.5	1,480.7
1988 Total	639.7 640.2	5.5 6.6	688.1 732.2	NA NA	11.1 11.7	248.5 263.4	1,592.8 1,654.1
1990 Total	681.3	9.4	732.2	NA NA	8.9	284.3	1,722.5
1991 Total	733.4	9.2	769.7	NA NA	9.7	303.3	1,825.2
1992 Total	735.2	8.8	787.8	E 267.5	9.9	315.2	b E 2,124.5
1993 Total	744.6	8.1	820.9	^E 259.0	7.7	^E 345.2	E 2,185.6
1994 Total	787.3	8.2	820.2	^E 227.8	10.3	^E 366.7	E 2,220.4
1995 Total	816.1	9.6	^E 835.7	^E 234.9	11.9	^E 407.0	^E 2,315.1
1996 Total	806.4	9.8	E 879.5	E 261.6	12.5	E 426.4	E 2,396.3
1997 Total	E 752.8	11.1	E 886.5	E 247.1	13.3	E 456.2	E 2,367.0
1998 Total1999 Total	E 781.0 E 837.3	10.8 ^E 11.1	^E 884.2 ^E 878.1	E 248.9 E 264.7	14.3 13.5	E 477.2 E 478.0	E 2,416.4 E 2,482.6
2000 January	E 77.7	1.2	E 82.0	E 27.2	1.3	E 40.7	E 230.1
February	E 70.4	1.1	E 76.5	^E 25.7	1.3	E 38.0	E 212.9
March	E 69.7	9	E 80.5	E 26.3	1.1	E 42.9	E 221.4
April	E 63.6	E.8	E 72.7	E 21.4	.8	E 41.5	E 200.9
May	E 69.9	.5	E 69.6	E 20.7	.7	E 41.5	E 202.8
June	E 73.8 E 79.1	.7	E 68.7 E 66.5	^E 21.8 ^E 20.4	1.2 1.3	E 40.5 E 43.7	E 206.6 E 211.7
July August	E 76.5	.8 E 1.0	E 66.6	E 19.0	1.3	E 43.7	E 207.6
September	E 69.2	.8	E 70.2	E 23.6	1.2	E 39.6	E 204.6
October	E 63.2	.8	E 77.6	E 25.2	1.4	E 40.2	E 208.5
November	E 68.5	1.6	E 78.8	E 25.0	1.2	E 41.6	E 216.7
December	E 78.5	1.4	E 83.5	E 26.0	1.1	E 42.9	E 233.5
Total	E 860.3	E 11.5	E 893.1	E 282.2	13.6	E 496.5	E 2,557.2
2001 January	E 80.0	1.5	86.7	E 27.0	.8	E 41.4	E 237.3
February	E 72.6 E 73.2	1.6	E 76.5 E 79.2	^E 26.4 ^E 26.8	.6	E 39.4 E 44.6	E 217.1
March April	E 65.7	1.8 1.3	E 74.2	E 23.2	1.1 1.0	E 41.5	E 226.6 E 206.9
May	E 69.8	1.3	69.6	E 21.4	1.3	E 39.7	E 203.0
June	E 74.1	E 1.4	E 68.1	E 20.8	1.3	E 39.4	E 205.1
July	E 77.0	2.1	E 70.9	E 20.0	.8	E 42.5	E 213.3
August	E 75.7	2.2	E 72.2	E 21.1	.5	E 45.6	E 217.2
September	E 72.4	2.1	76.0	E 23.5	.7	E 44.8	E 219.5
October	^E 69.1	E 2.2	80.9	E 25.8	.5	E 43.6	E 222.0
November	E 68.0	5.5	81.8	E 26.7	1.2	E 42.7	E 225.9
December Total	E 75.9 E 873.5	2.1 ^E 24.9	87.7 E 923.6	^E 30.1 ^E 292.8	1.4 11.3	E 43.6 E 508.8	E 240.8 E 2,634.9
2002 January	^E 79.1	E 2.0	E 87.6	E 27.7	1.1	E 41.6	E 239.1
February	E 71.2	E 1.9	E 82.6	E 25.4	1.2	E 38.4	E 220.8
March	E 71.4	1.4	E 42.4	E 28.8	1.4	E 45.4	E 190.7
April	E 57.0	1.5	38.9	E 22.9	.8	E 41.2	^E 162.1
May	^E 66.6	1.4	38.2	E 22.2	.7	E 44.9	E 174.0
5-Month Total	E 345.4	^E 8.2	^E 289.6	E 127.0	5.2	E 211.4	E 986.8
2001 5-Month Total 2000 5-Month Total	E 361.2 E 351.3	7.4 4.5	E 386.1 E 381.3	E 124.8 E 121.2	4.9 5.2	E 206.6 E 204.6	E 1,091.0 E 1,068.1

Net figures are generally less than gross figures by about 5 Notes: percent, the difference being the energy consumed by the generating plants Monthly data may not sum to annual totals due to

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

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

 ^a Sum of available data only.
 ^b There is a discontinuity in this time series between 1991 and 1992; beginning in 1992, includes data for Eastern Europe and the Former U.S.S.R.

Web Page: http://www.eia.doe.gov/emeu/mer/inter.html.

Table 11.4b Nuclear Electricity Gross Generation: North, Central, and South America (Billion Kilowatthours)

		North	America		Central and South America				
	Canada	Mexico	United States	Total	Argentina	Brazil	Total		
973 Total	15.3	_	87.8	103.1	_	_	_		
974 Total	15.4	_	124.3	139.7	1.0	_	1.0		
975 Total	13.2	_	182.3	195.5	2.5		2.5		
		_				_			
76 Total	18.0	-	201.8	219.8	2.6	-	2.6		
77 Total	26.6	-	264.2	290.8	1.6	_	1.6		
78 Total	33.0	_	292.4	325.4	2.9	-	2.9		
79 Total	38.4	-	270.6	309.0	2.7	_	2.7		
80 Total	40.4	-	265.4	305.8	2.3	-	2.3		
981 Total	43.3	_	288.5	331.8	2.8	_	2.8		
982 Total	42.6	_	298.6	341.2	1.9	0.1	1.9		
983 Total	53.0	_	313.6	366.6	3.4	.2	3.6		
984 Total	53.8	_	343.8	397.6	4.5	2.1	6.6		
985 Total	62.9	_	402.7	465.6	5.8	3.4	9.1		
986 Total	74.6	_	434.1	508.8	5.7		5.8		
		_				.1			
987 Total	80.6	_	479.5	560.1	5.2	1.0	6.2		
88 Total	85.6	-	554.1	639.7	5.1	.3	5.5		
89 Total	83.2	-	557.0	640.2	5.0	1.6	6.6		
90 Total	75.8	2.1	603.4	681.3	7.4	2.0	9.4		
91 Total	86.1	4.2	643.0	733.4	7.7	1.4	9.2		
992 Total	81.3	3.9	650.0	735.2	7.1	1.8	8.8		
993 Total	97.6	4.9	642.0	744.6	7.7	.4	8.1		
94 Total	110.7	4.2	672.4	787.3	8.2	.0	8.2		
995 Total	100.4	7.9	707.7	816.1	7.1	2.5	9.6		
996 Total	95.2	7.9	703.3	806.4	7.4	2.4	9.8		
997 Total	_ 84.1	10.4	^E 658.3	^E 752.8	8.0	3.2	11.1		
998 Total	^E 72.7	9.5	^E 698.7	^E 781.0	7.5	3.3	10.8		
99 Total	^E 73.9	10.0	^E 753.4	E 837.3	^E 7.1	^E 4.0	E 11.1		
00 January	7.1	.7	E 69.9	E 77.7	.7	.4	1.2		
February	6.3	.6	^E 63.6	E 70.4	.7	.4	1.1		
March	6.2	.6	E 63.0	E 69.7	.5	.4	.9		
April	5.2	.5	E 57.9	E 63.6	E.5	.4	E.8		
May	6.0	.5	E 63.4	E 69.9	.5	.0	.5		
June	6.1	.6	E 67.0	E 73.8	.7	.0	.7		
July	7.2	.8	E 71.1	E 79.1	.7	(s)	.8		
August	6.8	.5	E 69.2	E 76.5	E .7	.2	E 1.0		
September	5.1	.5	^E 63.6	E 69.2	.4	.4	.8		
October	5.0	1.0	E 57.3	E 63.2	.3	.5	.8		
November	5.9	.9	^E 61.7	E 68.5	.5	1.1	1.6		
December	7.0	1.0	E 70.6	E 78.5	.2	1.2	1.4		
Total	73.8	8.2	E 778.3	E 860.3	E 6.3	^E 5.2	E 11.5		
01 January	7.5	1.0	E 71.4	E 80.0	.5	1.0	1.5		
February	E 7.4	.8	E 64.4	E 72.6	.4	1.1	1.6		
March	E 7.1	1.0	E 65.1	E 73.2	.5	1.3	1.8		
			E 59.5	E 65.7	.5 .5				
April	5.3	.9				.8	1.3		
May	4.5	.4	E 64.9	E 69.8	.5	.8	1.3		
June	4.3	.5	^E 69.4	^E 74.1	.5	E .8	^E 1.4		
July	4.8	.7	^E 71.5	E 77.0	.7	1.4	2.1		
August	4.5	.9	E 70.4	E 75.7	.7	1.4	2.2		
September	4.3	.8	E 67.2	E 72.4	7	1.4	2.1		
October	4.1	.9	E 64.1	E 69.1	E.7	1.4	E 2.2		
November	4.1	.5	E 63.5	E 68.0	.6	4.9	5.5		
December		.5 .5	E 69.2	E 75.9	.0 .7	1.4			
Total	6.2 E 64.1	8.7	E 800.6	E 873.5	E 7.0	E 17.8	2.1 E 24.9		
02 January	5.9	.9	E 72.4	^E 79.1	E.7	E 1.3	E 2.0		
			E 64.3	E 71.2	= .7 E .7		E 1.9		
February	6.2	.8				1.2			
March	7.0	.9	E 63.6	E 71.4	.7	.6	1.4		
April	5.5	1.0	^E 50.6	E 57.0	.3	1.1	1.5		
May	NA	1.0	^E 65.7	E 66.6	NA	1.4	1.4		
5-Month Total	NA	4.4	^E 316.5	E 345.4	NA	^E 5.6	E 8.2		
01 5-Month Total	31.9	4.1	E 325.3	E 361.2	2.3	5.1	7.4		
			E 317.8	E 351.3		•			

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

sum to regional totals due to independent rounding. U.S. geographic coverage is the 50 States and the District of Columbia.

Web Page: http://www.eia.doe.gov/emeu/mer/inter.html. Source: Based on data from *Nucleonics Week*, a copyrighted publication of The McGraw-Hill Publishing Companies, Inc. Used with permission.

Table 11.4c Nuclear Electricity Gross Generation: Western Europe

						Wes	tern Europe					
	Belgium	Finland	France	Germany ^a	Italy ^b	Nether- lands	Slovenia	Spain	Sweden	Switzer- land	United Kingdom ^c	Totald
1973 Total	0.0	_	14.7	11.9	3.1	1.1	_	6.5	2.1	6.2	28.2	73.9
1974 Total	.1	_	14.7	12.0	3.4	3.3	_	7.2	2.3	7.0	33.8	83.9
1975 Total	6.8	-	18.3	21.7	3.8	3.3	-	7.5	12.0	7.7	30.5	111.7
1976 Total	10.0	_	15.8	24.5	3.8	3.9	_	7.6	16.0	7.9	36.8	126.2
1977 Total	11.9	2.7	17.9	36.0	3.4	3.7	_	6.5	19.9	8.1	38.1	148.1
1978 Total	12.5	3.3	30.6	35.7	4.5	4.1	_	7.6	23.8	8.3	36.6	166.9
1979 Total	11.4	6.7	39.9	42.2	2.6	3.5	_	6.7	21.0	11.8	38.5	184.3
1980 Total	12.5	7.0	61.2	43.7	2.2	4.2	_	5.2	26.7	14.3	37.2	214.2
1981 Total	12.8 15.6	14.5 16.5	105.2 108.9	53.4 63.4	2.7 6.8	3.7 3.9	_	9.4 8.8	37.7 38.8	15.2 15.0	38.9 44.1	293.4 321.8
1982 Total 1983 Total	24.1	17.4	144.2	65.8	5.8	3.6	NA	10.7	30.0 40.4	15.5	49.6	377.2
1984 Total	27.7	18.5	191.2	92.6	6.9	3.8	NA	23.1	51.3	16.3	54.1	485.4
1985 Total	34.5	18.8	224.0	125.8	7.0	3.9	NA	28.0	58.6	22.4	59.7	582.8
1986 Total	38.6	18.8	254.3	118.9	8.7	4.2	NA	37.5	69.9	22.5	58.2	631.5
1987 Total	41.9	19.4	265.5	130.2	.2	3.6	NA	41.2	67.2	23.0	56.2	648.3
1988 Total	43.1	19.3	274.9	145.2	.0	3.7	NA	50.4	69.4	22.7	59.4	688.1
1989 Total	41.2	18.8	302.5	149.6	.0	4.0	NA	56.1	65.6	22.8	71.6	732.2
1990 Total	42.7	18.9	314.1	147.2	.0	3.4	NA	54.3	68.2	23.6	66.1	738.6
1991 Total	42.9	19.2	331.4	147.3	.0	3.3	NA	55.6	76.8	22.9	70.4	769.7
1992 Total	43.5	19.0	337.6	158.8	.0	3.8	4.0	55.8	63.5	23.4	78.5	787.8
1993 Total	41.9	19.6	366.7	153.5	.0	3.9	4.0	56.1	61.4	23.3	90.4	820.9
1994 Total	40.6	19.1	359.1	151.1	.0	4.0	4.6	55.1	72.8	24.2	89.5	820.2
1995 Total	41.4	18.9	377.6	154.3	.0	4.0	4.8	54.5	69.9	24.8	^E 85.5	^E 835.7
1996 Total	43.3	19.5	397.0	161.7	.0	4.2	4.6	59.1	76.2	25.0	E 88.8	^E 879.5
1997 Total	47.4	20.9	389.3	170.4	.0	3.1	5.4	55.4	^E 70.6	25.3	^E 98.8	^E 886.5
1998 Total	46.1	21.9	_ 384.4	_ 161.0	.0	3.8	5.3	^E 58.6	_ 73.8	25.7	^E 103.7	E 884.2
1999 Total	49.0	23.0	^E 377.4	E 167.8	.0	3.8	4.7	58.9	E 74.5	24.8	^E 94.1	^E 878.1
2000 January	4.3	2.1	E 36.2	15.8	.0	.4	.5	E 5.6	7.1	2.5	7.5	E 82.0
February	3.2	1.9	E 35.3	13.9	.0	.3	.5	5.3	6.8	2.3	7.0	E 76.5
March	4.1	2.1	E 37.4	13.3	.0	.3	5	5.2	6.5	2.5	_ 8.6	E 80.5
April	3.7	1.9	E 34.0	12.9	.0	.3	E .5	4.7	5.3	2.4	E 6.9	E 72.7
May	3.9	1.5	E 32.8	13.9	.0	.4	.0	5.1	3.3	E 2.4	E 6.4	E 69.6
June	E 3.6	1.8	E 32.8	12.3	.0	.3	.2	5.5	3.0	2.3	7.0	E 68.7
July	3.5	1.8	E 31.0	14.0	.0	.4	.5	5.6	2.1	1.4	6.2	E 66.5
August	4.0 E 4.1	1.5	E 31.7 E 33.2	13.2 E 13.2	.0	.3 .3	.5 .4	5.2 4.2	2.6	1.1	6.5	E 66.6 E 70.2
September	4.5	1.7 2.0	E 35.2	15.3	.0 .0	.s .2	. 4 .5	4.2	4.1 5.1	2.1 2.5	6.9	E 77.6
October	4.5 4.4	2.0	E 36.5	14.9		.2	.5 .5	4.6 5.3	5.1 5.4	2.5 2.4	7.0 E 7.0	E 78.8
November December	4.4	2.0	E 38.4	15.6	.0 .0	.3 .4	.5 .5	5.8	5.4	2.4	7.9	E 83.5
Total	E 47.8	22.5	415.2	E 168.3	.0 .0	3.9	E 5.0	E 62.0	57.2	E 26.3	E 84.9	E 893.1
2001 January	4.5	2.1	40.7	15.9	.0	.4	.5	5.7	7.0	2.5	7.5	86.7
February	3.9	1.9	34.9	14.1	.0	.3	.5	5.0	E 6.6	2.3	E 7.1	E 76.5
March	3.4	2.0	35.4	15.3	.0	.4	.5	4.9	6.9	2.5	E 7.8	E 79.2
April	3.7	2.0	33.1	13.9	.0	.3	.4	4.8	6.2	2.4	E 7.4	E 74.2
May	3.5	1.5	30.4	13.2	.0	.4	.1	5.8	5.8	2.5	6.5	69.6
June	E 3.5	2.0	30.1	12.9	.0	.3	.2	5.3	E 4.9	2.2	6.6	E 68.1
July	3.3	2.0	32.8	13.6	.0	.3	.5	5.7	4.5	1.5	E 6.6	E 70.9
August	E 3.3	1.7	32.4	14.7	.0	.3	.5	5.6	4.9	1.2	7.7	E 72.2
September	3.6	1.7	34.6	14.6	.0	.2	.5	4.9	5.9	2.2	8.0	76.0
October	4.5	2.0	37.5	13.5	.0	.4	.5	5.0	6.9	2.5	8.0	80.9
November	4.1	2.0	38.9	13.5	.0	.3	.5	5.4	6.6	2.4	8.0	81.8
December	4.5	2.0	40.3	16.0	.0	.4	.5	5.7	_ 6.6	2.5	_ 9.1	_ 87.7
Total	45.8	22.8	421.1	171.3	.0	4.0	5.3	63.7	E 72.8	26.7	E 90.3	E 923.6
2002 January	4.4	2.0	E 40.3	16.2	.0	.4	.5	5.8	E 6.9	2.5	E 8.6	E 87.6
February	4.0	1.9	E 40.3	14.1	.0	.3	.4	5.0	E 6.4	2.3	E 8.0	E 82.6
March	4.3	2.1	NA	14.2	.0	.4	.5	4.4	6.7	2.5	E 7.3	E 42.4
April	3.8	1.9	NA	12.8	.0	.3	.5	4.4	6.0	2.4	6.8	38.9
May	3.6	1.5	NA	13.1	.0	.4	.2	5.0	5.3	2.4	6.8	38.2
5-Month Total	20.1	9.4	NA	70.4	.0	1.7	2.1	24.6	E 31.2	12.0	^E 37.5	E 289.6
2001 5-Month Total 2000 5-Month Total	19.0 19.3	9.5 9.5	174.5 175.7	72.4 69.8	.0 .0	1.7 1.7	2.1 1.9	26.1 25.8	E 32.4 E 29.0	12.1 12.1	E 36.3 E 36.5	E 386.1 E 381.3

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

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

^c Monthly data for the United Kingdom are totals for 4- or 5-week reporting particular months.

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

the monthly data. Data for countries may not sum to regional totals due to independent rounding.

Web Page: http://www.eia.doe.gov/emeu/mer/inter.html.

Source: Based on data from *Nucleonics Week*, a copyrighted publication of The McGraw-Hill Publishing Companies, Inc., used with permission, except for France's 2000 and 2001 monthly and annual values, which are from the Ministry of Industry, General Directorate for Energy and Raw Material, France.

periods, not calendar months.

d Sum of available data only.

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

Table 11.4d Nuclear Electricity Gross Generation: Eastern Europe and Former U.S.S.R.

					Eastern	Europe and F	ormer U.S.S.	R.			
	Armenia ^a	Bulgaria	Czech Republic ^b	Hungary	Kazakhstan ^b	Lithuania ^b	Romania	Russia	Slovakia ^b	Ukraine	Total ^c
1973 Total 1974 Total 1975 Total 1975 Total 1976 Total 1977 Total 1978 Total 1979 Total 1980 Total 1981 Total 1982 Total 1983 Total 1984 Total 1985 Total 1986 Total 1987 Total 1988 Total 1987 Total 1988 Total 1998 Total 1999 Total 1990 Total 1991 Total 1992 Total 1993 Total 1994 Total 1995 Total 1995 Total 1996 Total 1997 Total 1997 Total 1998 Total 1998 Total	Armenia	NA N	NA N	Hungary NA NA NA NA NA NA NA 14.0 14.0 14.2 14.0 13.9 14.2	NA N	Littnuania	Romania	NA N	NA N	UKraine	NA NA NA NA NA NA NA NA NA NA NA NA NA N
2000 January February March April May June July August September October November December Total	3 3 3 3 3 8 0 0 0 0 (s)	E 1.4 E 1.5 E 1.5	E1.2 1.2 1.1 1.0 1.0 1.0 1.1 E1.1 E1.1 1.2 1.3 E13.8	14.2 1.4 1.3 1.1 1.0 1.0 1.0 1.0 1.0 1.0 1.1 1.1	.0 .0 .0 .0 .0 .0 .0 .0 .0	9.9 .6 .7 .5 .5 .7 .6 .7 .9 .8 E.8	5.2 5.5 5.5 5.5 5.5 5.5 4.4 6.5 1.5 4.5 1.5 4.5 1.5 4.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1	13.2 12.3 12.9 9.8 9.2 9.5 8.5 9.8 10.1 10.8 10.6 12.2 128.9	1.1 1.3 1.3 1.0 1.1 1.4 1.3 1.3 1.5 1.6 1.7	7.2 6.7 6.7 5.8 5.4 5.9 6.0 E 3.2 6.7 7.7 7.3 6.1 E 74.8	E 27.2 E 25.7 E 26.3 E 21.4 E 20.7 E 21.8 E 20.4 E 19.0 E 23.6 E 25.2 E 25.0 E 26.0 E 282.2
2001 January	.3 .2 .2 .2 .3 .2 .1 E.1 .0 .1 .1	E 1.6 E 1.6 E 1.6 E 1.6 E 1.6 E 1.6 E 1.6 E 1.6 E 1.6 E 1.6 I I.6 E 1.6 I I.6 I I.6	1.3 E 1.4 1.4 1.1 1.1 1.1 1.1 E 1.1 1.0 1.4 1.3 E 14.8	1.4 1.3 1.2 1.1 1.1 1.1 1.9 .9 1.0 E1.4 E1.4 1.3	.0 .0 .0 .0 .0 .0 .0 .0 .0	.8 .9 .6 .5 .6 .7 .8 .9 E .9 1.7 E 10.2	5.4.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5	12.5 11.7 12.4 10.4 9.6 9.5 8.9 9.0 11.1 12.2 12.9 14.3 134.4	1.5 1.7 1.3 1.2 1.2 1.3 1.3 1.5 E1.5 1.6 1.7	7.0 7.1 7.5 6.6 5.4 4.7 4.9 6.0 6.0 6.0 7.3	E 27.0 E 26.4 E 26.8 E 23.2 E 21.4 E 20.8 E 20.0 E 21.1 E 23.5 E 25.8 E 26.7 E 30.1 E 292.8
2002 January	.3 .2 .3 .2 .2 1.2 1.3	NA NA 2.0 1.5 1.3 NA E 8.2 E 7.4	1.3 E 1.3 1.3 .9 1.0 E 5.7	1.4 1.2 1.2 .9 1.0 5.7 6.1 5.9	.0 .0 .0 .0 .0	1.5 1.1 1.2 .9 .9 5.6 3.4 3.3	.5 .3 .4 NA .2 1.4 2.5 2.5	13.6 12.6 13.2 10.3 9.9 59.6 56.6 57.4	E 1.8 E 1.6 1.5 1.4 1.6 E 7.9	E 7.3 E 7.0 7.7 6.7 6.1 E 34.9	E 27.7 E 25.4 E 28.8 E 22.9 E 22.2 E 127.0 E 124.8 E 121.2

^a According to the International Atomic Energy Agency's *Nuclear Power Reactors in the World*, Tables 7 and 10, Vienna, Austria, April 2001, Armenia's two commercial reactors were shut down in 1989. One re-started in 1995 but the

two commercial reactors were snut down in 1989. One re-started in 1995 but the other is permanently shut down.

^b The total gross generation estimates for Czech Republic, Kazakhstan, Lithuania, and Slovakia are calculated as 5 percent more than the annual net nuclear generation reported by the International Atomic Energy Agency and published in the Energy Information Administration annual reports—1992 and 1993: World Nuclear Outlook 1994, December 1994, Table 1. 1994: Nuclear Power Generation and Fuel Cycle Report 1996, October 1996, Table 1. 1995 and 1996: Nuclear Power Generation and Fuel Cycle Report 1997, September 1997, Table D4. **1997 forward:** Based on data from *Nucleonics Week*, a copyrighted publication of The McGraw-Hill Publishing Companies, Inc. Used with permission.

^c Sum of available data only.

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

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

Web Page: http://www.eia.doe.gov/emeu/mer/inter.html.
Source: Czech Republic, Kazakhstan, Lithuania, Slovakia, and Eastern European Countries: See footnote b. Bulgaria and Czech Republic: 2001 annual total is from NucNet, a copyrighted on-line source at info@worldnuclear.org. Used with permission. All Other: Based on data from Nucleonics Week, a copyrighted publication of The McGraw-Hill Publishing Companies, Inc. Used with permission.

Table 11.4e Nuclear Electricity Gross Generation: Africa and Asia

	Africa				Asia			
	South Africa ^a	China ^b	India	Japan	Pakistan	South Korea	Taiwan	Totalc
973 Total	_	_	2.5	9.4	0.5	_	_	12.3
974 Total	_	_	1.9	18.9	.6	_	_	21.4
975 Total	_	_	2.5	21.3	.5	_	_	24.4
976 Total	_	_	3.2	36.6	.5	_	_	40.3
977 Total	_	_	2.8	28.2	.3	0.1	0.1	31.5
978 Total	_	_	2.3	53.1	.2	2.3	2.7	60.6
979 Total	_	_	3.2	62.0	(s)	3.2	6.3	74.7
980 Total	_	_	2.9	82.8	.1	3.5	8.2	97.4
981 Total	_	_	3.1	86.0	.2	2.9	10.7	102.9
982 Total	_	_	2.2	104.5	.1	3.8	13.1	123.6
983 Total	_	_	2.9	109.1	.2	9.0	18.9	140.1
984 Total	4.2	_	4.1	127.2	.3	11.8	24.3	167.7
985 Total	5.9	_	4.5	152.0	.3	16.5	28.7	202.0
986 Total	9.3	_	5.1	164.8	.5	26.1	26.9	223.6
987 Total	6.6	_	5.5	182.8	.3	37.8	33.1	259.5
988 Total	11.1	_	6.1	173.6	.2	38.7	29.9	248.5
989 Total	11.7	_	4.0	183.7	.1	47.2	28.3	263.4
990 Total	8.9	_	6.3	191.9	.4	52.8	32.9	284.3
991 Total	9.7	_	5.4	205.8	.4	56.3	35.3	303.3
992 Total	9.9	_	6.3	218.0	.6	56.4	33.8	315.2
993 Total	7.7	E 2.6	6.2	243.5	.4	58.1	34.3	E 345.2
994 Total	10.3	E 14.2	5.0	253.8	.6	58.3	34.8	^E 366.7
995 Total	11.9	E 13.0	8.0	286.1	.5	64.0	35.3	€ 407.0
996 Total	12.5	E 14.3	8.3	293.2	.4	72.5	37.8	E 426.4
997 Total	13.3	E 11.4	E 11.0	318.0	.4	78.9	36.6	E 456.2
998 Total	14.3	E 14.5	E 11.2	326.9	.4	87.3	36.9	E 477.2
999 Total	13.5	E 14.6	13.2	317.4	.1	94.6	38.2	E 478.0
000 January	1.3	E.9	1.2	25.6	(s)	9.4	3.6	E 40.7
February	1.3	E.7	1.2	24.2	(s)	8.6	3.2	E 38.0
March	1.1	E 1.3	1.2	28.3	.1	8.9	3.1	E 42.9
April	.8	E 1.4	E 1.1	28.0	.1	8.3	2.6	E 41.5
May	.7	E 1.4	E 1.1	27.0	.1	8.8	3.1	E 41.5
June	1.2	E 1.4	1.2	25.9	.1	8.4	3.6	E 40.5
July	1.3	E 1.4	E 1.1	28.2	(s)	9.3	3.6	E 43.7
August	1.1	E 1.5	E 1.1	27.5	.1	9.8	3.5	E 43.3
September	1.2	E 1.4	1.2	24.5	(s)	9.6	2.9	E 39.6
October	1.4	E 1.4	1.4	25.5	.0	8.9	3.0	E 40.2
November	1.2	1.1	E 1.2	27.7	.0	8.8	2.8	E 41.6
December	1.1	E .7	E 1.3	27.3	.0	10.1	3.5	E 42.9
Total	13.6	E 14.7	E 14.2	319.8	.4	108.9	38.5	E 496.5
001 January	.8	E 1.0	1.6	25.0	.2	10.1	3.5	E 41.4
001 January	.6	E.7	1.6	25.0	.2	9.0	2.9	E 39.4
February	1.1	E.7	E 1.6	30.5	.1	9.0	2.6	E 44.6
March April	1.0	E 1.1	E 1.6	27.4	.3	9.5	2.6 1.6	E 41.5
May	1.3	E 1.1	E 1.6	25.2	.3 .2	9.5	2.5	E 39.7
- 7	1.3	E 1.1	E 1.6	24.5	.2 .1	8.5	3.5	E 39.4
June		1.4	E 1.6	26.7	.1	9.4	3.3	E 42.5
July	.8 .5	E 1.5	E 1.6	28.4		10.4	3.3 3.7	E 45.6
August	.7	E 1.4	E 1.6	E 28.4	.1 .2	E 10.4	2.8	E 44.8
September October	.5	E 1.5	E 1.6	E 28.4	.2	9.0	3.0	E 43.6
	.5 1.2	E 1.4	E 1.6	26.9	.2	9.0 9.6	3.0	E 42.7
November	1.4	- 1.4 E 7	E 1.6			9.6	3.0	E 43.6
December		• • •		28.7	.2			
Total	11.3	^E 13.7	E 19.2	E 324.9	2.2	E 113.3	35.5	^E 508.8
02 January	1.1	E 1.0	E 1.9	25.4	.2	9.6	3.6	E 41.6
February	1.2	E.6	E 1.9	23.5	.3	8.9	3.3	E 38.4
March	1.4	E_1.0	1.7	29.5	.2	9.6	3.3	E 45.4
April	.8	E.7	1.5	27.3	.1	8.6	2.9	E 41.2
May	.7	<u> </u>	_ 1.5	28.9	.2	9.9	3.1	_ ^E 44.9
5-Month Total	5.2	E 4.7	E 8.6	134.7	.9	46.5	16.1	E 211.4
	4.9	^E 4.7	^E 8.0	133.0	1.0	46.7	13.2	E 206.6
001 5-Month Total	5.2	^{2.7} 5.7	^E 5.7	133.0	1.0	40.7	13.2	E 204.6

Net figures are generally less than gross figures by about 5

percent, the difference being the energy consumed by the generating plants themselves. Monthly data may not sum to annual totals due to independent rounding and because precommercial generation is included in some annual totals but not in the monthly data. Data for countries may not sum to regional totals due to independent rounding.

Web Page: http://www.eia.doe.gov/emeu/mer/inter.html.

Source: China: See footnote b. India: 2001 annual total is from NucNet, a copyrighted on-line source at info@worldnuclear.org. Used with permission. All Other: Based on data from *Nucleonics Week*, a copyrighted India: 2001 annual total is from publication of The McGraw-Hill Publishing Companies, Inc. Used with permission.

a South Africa possesses all of Africa's nuclear electricity generation.

b The total gross generation estimates for China are calculated as 5 percent more than the annual net nuclear generation reported by the International Atomic Energy Agency (IAEA) and are published in the Energy Information Administration annual reports—1993: World Nuclear Outlook 1994, December 1994, Table 1. 1994: Nuclear Power Generation and Fuel Cycle Report 1996, October 1996, Table 1. 1995 and 1996: Nuclear Power Generation and Fuel Cycle Report 1997, September 1997, Table D4. 1997 forward: Based on data from Nucleonics Week, a copyrighted publication of The McGraw-Hill Publishing Companies. Inc. Lised with permission The McGraw-Hill Publishing Companies, Inc. Used with permission.

^c Sum of available data only.

Sources for Tables 11.1a and 11.1b

United States—See Table 3.1a.

All Other Countries: Monthly Data

2000-forward: Petroleum Intelligence Weekly, Oil and Gas Journal, and other industry sources.

All Other Countries: Annual Data

1973-1979: Energy Information Administration (EIA), *International Energy Annual 1981*, Table 8. 1980-2000: Office of Energy Markets and End Use, International Energy Database, April 2002.

2001: Average of monthly data.

World: Monthly Data

2000-forward: EIA, International Petroleum Monthly, sum of all countries' monthly data.

World: Annual Data

1973-1979: EIA, International Energy Annual 1981, Table 8.

1980-2000: Office of Energy Markets and End Use,

International Energy Database, April 2002.

2001: 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.

In general, the annual thermal conversion factors presented in Tables A1 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.

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.

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, Naphtha 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 Crude Oil, Crude Oil and Products, and **Natural Gas Plant Liquids**

(Million Btu per Barrel)

		Crude Oil		Crude Oil a	nd Products	Natural Gas	
	Production	Imports	Exports	Imports	Exports	Plant Liquids Production	
973	5.800	5.817	5.800	5.897	5.752	4.049	
974	5.800	5.827	5.800	5.884	5.774	4.011	
975	5.800	5.821	5.800	5.858	5.748	3.984	
976	5.800	5.808	5.800	5.856	5.745	3.964	
977	5.800	5.810	5.800	5.834	5.797	3.941	
978	5.800	5.802	5.800	5.839	5.808	3.925	
979	5.800	5.810	5.800	5.810	5.832	3.955	
980	5.800	5.812	5.800	5.796	5.820	3.914	
981	5.800	5.818	5.800	5.775	5.821	3.930	
982	5.800	5.826	5.800	5.775	5.820	3.872	
983	5.800	5.825	5.800	5.774	5.800	3.839	
984	5.800	5.823	5.800	5.745	5.850	3.812	
985	5.800	5.832	5.800	5.736	5.814	3.815	
986	5.800	5.903	5.800	5.808	5.832	3.797	
987	5.800	5.901	5.800	5.820	5.858	3.804	
988	5.800	5.900	5.800	5.820	5.840	3.800	
989	5.800	5.906	5.800	5.833	5.857	3.826	
990	5.800	5.934	5.800	5.849	5.833	3.822	
991	5.800	5.948	5.800	5.873	5.823	3.807	
992	5.800	5.953	5.800	5.877	5.777	3.804	
993	5.800	5.954	5.800	5.883	5.779	3.801	
994	5.800	5.950	5.800	5.861	5.779	3.794	
995	5.800	5.938	5.800	5.855	5.746	3.796	
996	5.800	5.947	5.800	5.847	5.736	3.777	
997	5.800	5.954	5.800	5.862	5.734	3.762	
998	5.800	5.953	5.800	5.861	5.720	3.769	
999	5.800	5.942	5.800	5.840	5.699	3.744	
2000	5.800	5.959	5.800	5.849	5.658	3.733	
001	5.800	5.976	5.800	R 5.862	R 5.752	3.735	
2002 ^a	5.800	5.976	5.800	R 5.862	R 5.752	3.735	

^a Preliminary.

R=Revised.
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 Products, Weighted Averages (Million Btu per Barrel)

			Consu	mption						
	Residential	Commercial	Industrial	Transportation	Electric Utilities	Total	Imports	Exports	Liquefied Petroleum Gases Consumption	Motor Gasoline Consumption
1973	5.205	5.749	5.568	5.395	6.245	5.515	5.983	5.752	3.746	5.253
1974	5.196	5.740	5.538	5.394	6.238	5.504	5.959	5.773	3.730	5.253
1975	5.192	5.704	5.528	5.392	6.250	5.494	5.935	5.747	3.715	5.253
1976	5.215	5.726	5.538	5.395	6.251	5.504	5.980	5.743	3.711	5.253
1977	5.213	5.733	5.555	5.400	6.249	5.518	5.908	5.796	3.677	5.253
1978	5.213	5.716	5.553	5.404	6.251	5.519	5.955	5.814	3.669	5.253
1979	5.298	5.769	5.418	5.428	6.258	5.494	5.811	5.864	3.680	5.253
1980	5.245	5.803	5.376	5.440	6.254	5.479	5.748	5.841	3.674	5.253
1981	5.191	5.751	5.313	5.432	6.258	5.448	5.659	5.837	3.643	5.253
1982	5.167	5.751	5.263	5.422	6.258	5.415	5.664	5.829	3.615	5.253
1983	5.022	5.642	5.273	5.415	6.255	5.406	5.677	5.800	3.614	5.253
1984	5.129	5.700	5.223	5.422	6.251	5.395	5.613	5.867	3.599	5.253
1985	5.115	5.660	5.221	5.423	6.247	5.387	5.572	5.819	3.603	5.253
1986	5.130	5.691	5.286	5.427	6.257	5.418	5.624	5.839	3.640	5.253
1987	5.095	5.659	5.253	5.430	6.249	5.403	5.599	5.860	3.659	5.253
1988	5.118	5.657	5.248	5.434	6.250	5.410	5.618	5.842	3.652	5.253
1989	5.057	5.615	5.233	5.440	6.241	5.410	5.641	5.869	3.683	5.253
1990	4.952	5.612	5.272	5.445	6.247	5.411	5.614	5.838	3.625	5.253
1991	4.912	5.591	5.192	5.442	6.248	5.384	5.636	5.827	3.614	5.253
1992	4.943	5.579	5.188	5.445	6.243	5.378	5.623	5.774	3.624	5.253
1993	4.943	5.573	5.200	5.438	6.241	5.379	5.620	5.777	3.606	5.253
1994	4.940	5.583	5.170	5.427	6.231	5.361	5.534	5.777	3.635	^b 5.230
1995	4.928	5.549	5.140	5.419	6.210	5.341	5.483	5.740	3.623	5.215
1996	4.871	5.497	5.136	5.421	6.212	5.336	5.468	5.728	3.613	5.216
1997	4.873	5.463	5.139	5.417	6.220	5.336	5.469	5.726	3.616	5.213
1998	4.844	5.447	5.156	5.416	6.220	5.349	5.462	5.710	3.614	5.212
1999	4.751	5.368	5.115	5.419	6.208	5.328	5.421	5.684	3.616	5.211
2000	4.760	5.395	5.089	5.427	6.193	5.326	5.432	5.651	3.607	5.210
2001	4.760	5.395	5.089	5.427	6.193	^R 5.345	^R 5.443	^R 5.751	3.614	5.210
2002 ^a	4.760	5.395	5.089	5.427	6.193	^R 5.345	R 5.443	^R 5.751	3.614	5.210

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.

a Preliminary.
 b Beginning in 1994, the single constant factor is replaced with a quantity-weighted average of motor gasoline's major components. See Table A1.

Table A4. Approximate Heat Content of Natural Gas

(Btu per Cubic Foot)

	Production		_	Consumption			
	Dry	Marketed	Sectors Other Than Electric Utilities	Electric Utilities	Total	Imports	Exports
973	1,021	1,093	1,020	1,024	1,021	1,026	1,023
974	1,021	1,093	1,024	1.022	1,024	1.027	1,016
975	1,024	1,097	1,020	1,022	1,024	1,026	1,016
976	1,021	1,093	1,019	1,023	1,020	1,025	1,013
977	1,020	1,093	1,019	1,023	1,020	1,025	1,013
978	1,021	1,093	1,019	1,029	1,021	1.030	1,013
979	1,019	1,092	1,018	1,034	1,019	1,037	1,013
980	1,026	1,092	1,024	1,035	1,026	1.022	1,013
981	1,020	1,103	1,025	1,035	1,027	1,014	1,013
982	1,027	1,107	1,026	1,036	1,028	1.018	1,011
983	1,028	1,107	1,031	1.030	1,031	1.024	1,010
984	1.031	1,113	1.030	1.035	1.031	1.005	1,010
985	1,031	1,109	1,031	1.038	1,032	1,003	1,010
986	1,032	1,112	1.029	1.034	1.030	997	1.008
987	1,030	1,110	1,031	1,034	1,030	999	1,011
988	1,029	1,112	1,029	1.028	1.029	1.002	1,011
989	1,029	1,109	1,031	1.030	1,029	1,002	1,016
990	1,031	1,107	1,030	1,030	1,031	1,012	1,019
991	1,030	1,108	1,031	1,034	1,030	1,012	1,016
992	1,030	1,110	1,031	1,024	1,030	1,014	1,022
993	1,027	1,110	1,028	1,022	1,027	1,020	1,016
994	1,027	1,105	1,029	1.022	1,028	1.022	1,010
995	1.027	1,105	1.027	1.025	1.027	1.021	1,011
996	1,027	1,109	1,027	1,025	1,027	1,022	1,011
997	1,027	1,109	1.027	1,019	1,026	1.023	1,011
998	1,026	1,107	1,033	1,019	1,020	1,023	1,011
999	1,027	1,109	1,028	1,019	1,027	1,023	1,006
000 ^a	1,027	1,107	1,026	1.020	1,027	1.023	1,006
000	1.025	1,107	1,026	1.020	1,025	1.023	1.006
001 ^a	1,025	1,107	1,026	1,020	1,025	1,023	1,006

^a Preliminary.
 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
				Consu	mption					
		Er	d-Use Sector	rs .	Electric Po	ower Sector				
			Indu	strial						
	Production	Residential and Commercial	Coke Plants	O ther ^a	Electric Utilities	Other Power Producers ^b	Total	Imports	Exports	Imports and Exports
1973	23.376	22.831	26.780	22.586	22.246	NA	23.057	25.000	26.596	24.800
	23.072	22.479	26.778	22.419	21.781	NA NA	22.677	25.000	26.700	24.800
1974 1975	23.072	22.479	26.778	22.419	21.781	NA NA	22.506	25.000 25.000	26.700 26.562	24.800
1976	22.855	22.774	26.781	22.430	21.679	NA NA	22.506	25.000	26.601	24.800
1977	22.597	22.774	26.787	22.322	21.508	NA NA	22.265	25.000	26.548	24.800
1978	22.248	22.466	26.789	22.207	21.275	NA NA	22.203	25.000	26.478	24.800
1979	22.454	22.242	26.788	22.452	21.364	NA NA	22.100	25.000	26.548	24.800
1980	22.415	22.543	26.790	22.690	21.295	NA NA	21.947	25.000	26.384	24.800
1981	22.308	22.474	26.794	22.585	21.085	NA	21.713	25.000	26.160	24.800
1982	22.239	22.695	26.797	22.712	21.194	NA NA	21.674	25.000	26.223	24.800
1983	22.052	22.775	26.798	22.691	21.134	NA NA	21.576	25.000	26.223	24.800
1984	22.010	22.844	26.799	22.543	21.101	NA	21.573	25.000	26.402	24.800
1985	21.870	22.646	26.798	22.020	20.959	NA	21.366	25.000	26.307	24.800
1986	21.913	22.947	26.798	22.198	21.084	NA	21.462	25.000	26.292	24.800
1987	21.922	23.404	26.799	22.381	21.136	NA	21.517	25.000	26.291	24.800
1988	21.823	23.571	26.799	22.360	20.900	NA	21.328	25.000	26.299	24.800
1989	21.765	23.650	26.800	22.347	20.848	21.474	21.268	25.000	26.160	24.800
1990	21.822	23.137	26.799	22.457	20.929	20.539	21.324	25.000	26.202	24.800
1991	21.681	23.114	26.799	22.460	20.755	19.933	21.131	25.000	26.188	24.800
1992	21.682	23.105	26.799	22.250	20.787	18.983	21.107	25.000	26.161	24.800
1993	21.418	22.994	26.800	22.123	20.639	19.040	20.947	25.000	26.335	24.800
1994	21.394	23.112	26.800	22.068	20.673	19.485	20.979	25.000	26.329	24.800
1995	21.326	23.112	26.800	21.950	20.495	19.471	20.815	25.000	26.180	24.800
1996	21.322	23.011	26.800	22.105	20.525	19.427	20.826	25.000	26.174	24.800
1997	21.296	22.494	26.800	22.172	20.548	19.596	20.836	25.000	26.251	24.800
1998	21.418	22.620	27.426	23.164	20.513	20.143	20.868	25.000	26.800	24.800
1999	21.070	23.880	27.426	22.489	20.401	20.718	20.753	25.000	26.081	24.800
2000 ^c	21.070	23.880	27.426	22.489	20.401	20.718	20.753	25.000	26.117	24.800
2001 ^c	21.072	23.880	27.426	22.489	20.401	20.718	20.753	25.000	26.117	24.800
2002 ^c	21.072	23.880	27.426	22.489	20.401	20.718	20.753	25.000	28.117	24.800
2002	21.072	25.500	21.420	22.403	20.401	20.7 10	20.733	25.000	20.117	24.000

a Includes transportation.
 b Nonutility wholesale producers of electricity, and nonutility cogeneration plants that are not included in the end-use sectors.
 c Preliminary.
 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		
	Fossil-Fueled Steam-Electric Plants ^a	Nuclear Steam-Electric Plants	Geothermal Energy Plants ^b	Electricity Consumption
973	10,389	10,903	21,674	3,412
974	10,442	11,161	21.674	3,412
975	10.406	11.013	21.611	3.412
976	10,373	11.047	21.611	3,412
977	10,435	10,769	21,611	3,412
978	10,361	10.941	21.611	3,412
979	10,353	10.879	21.545	3,412
980	10,388	10,908	21.639	3,412
981	10,453	11,030	21,639	3,412
982	10,454	11.073	21.629	3,412
983	10,520	10,905	21,290	3,412
984	10.440	10.843	21.303	3,412
985	10,447	10.813	21.263	3,412
986	10,446	10.799	21,263	3,412
987	10,419	10,776	21,263	3,412
988	10,324	10.743	21.096	3,412
989	10,432	10,724	21.096	3,412
990	10,402	10,680	21.096	3,412
991	10,436	10,740	20,997	3,412
992	10,342	10,678	20,914	3,412
993	10,309	10,682	20,914	3,412
994	10,316	10,676	20,914	3,412
995	10,312	10,658	20,914	3,412
996	10,340	10,623	20,960	3,412
997	10,357	10,623	20,960	3,412
98	10,346	10,623	21,017	3,412
999	10,346	10,623	21,017	3,412
000 ^c	10,346	10,623	21,017	3,412
001 ^c	10,346	10,623	21,017	3,412
002 ^c	10,346	10,623	21,017	3,412

a Used as the thermal conversion factor for hydroelectric power generation, and for wood and waste, wind, photovoltaic, and solar thermal energy consumed at electric utilities.

b Used as the thermal conversion factor for geothermal energy consumed at electric utilities.

Web Page: http://www.eia.doe.gov/emeu/mer/append.html.
Source: See "Thermal Conversion Factor Source Documentation," which follows this table.

^c Preliminary.

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. • 1960 through 1966: U.S. Department of the Interior, Bureau of Mines, Mineral Industry Surveys, *Crude Petroleum and Petroleum Products, 1956,* Table 4 footnote, constant value of 4.011 million Btu per barrel. • 1967 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: 1967 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. • 1960 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 annual quantity-weighted average conversion factors for conventional, reformulated, and oxygenated motor gasolines (shown in appendix Table C1). 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 Electric Utilities. Calculated annually by EIA as the average of the thermal conversion factors for all petroleum products consumed at electric utilities, weighted by the quantity of each petroleum product consumed at electric utilities. The quantity of petroleum consumed is estimated in the State Energy Data System as documented in the State Energy Data Report.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Approximate Heat Content of Coal and Coal Coke

Coal, Total Consumption. Calculated annually by EIA by dividing the sum of the heat content of coal (including anthracite culm and waste coal) consumption by the total tonnage.

Coal, Consumption by Electric Utilities. Calculated annually by EIA by dividing the sum of the heat content of coal (including anthracite culm and waste coal) received at electric utilities by the sum of the tonnage received.

Coal, Consumption by Other Power Producers. Calculated annually by dividing the total heat content of coal (including anthracite culm and waste coal) consumed by other power producers by their total consumption tonnage.

Coal, Consumption by the Electric Power Sector. Calculated annually by dividing the total heat content of coal (including anthracite culm and 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 anthracite culm and 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) 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 uses data from Form EIA-767 to calculate a rate factor that is equal to the prevailing annual average heat rate factor for fossil-fueled steam-electric power plants in the United States. By using that factor, it is possible to evaluate fossil fuel requirements for replacing those sources during periods of interruption such as droughts. The heat content of a kilowatthour of electricity produced, regardless of the generation process, is 3,412 Btu per kilowatthour. 1973-1991: The weighted annual average heat rate for fossil-fueled steam-electric power plants in the United States, as published by EIA in Electric Plant Cost and Power

Production Expenses 1991, Table 9. 1992 forward: Unpublished factors calculated on the basis of data from Form EIA-767.

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

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

Appendix B. Metric and Other Physical Conversion Factors

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

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

tons (500 short tons x 0.9071847 metric tons/short ton = 453.6 metric tons).

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

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

Metric Conversion Factors Table B1.

Type of Unit	U.S. Unit	multiplied by	d Conversion Factor	equals	Metric Unit
Mass	short tons (2,000 lb)	х	0.907 184 7	=	metric tons (t)
	long tons	Х	1.016 047	=	metric tons (t)
	pounds (lb)	Х	.453 592 37°	=	kilograms (kg)
	pounds uranium oxide (lb U ₃ O ₈)	Х	0.384 647 ^b	=	kilograms uranium (kgU)
	ounces, avoirdupois (avdp oz)	X	28.349 52	=	grams (g)
Volume	barrels of oil (bbl)	Х	0.158 987 3	=	cubic meters (m³)
	cubic yards (yd³)	Х	0.764 555	=	cubic meters (m ³)
	cubic feet (ft ³)	Х	0.028 316 85	=	cubic meters (m ³)
	U.S. gallons (gal)	Х	3.785 412	=	liters (L)
	ounces, fluid (fl oz)	Х	29.573 53	=	milliliters (mL)
	cubic inches (in ³)	Χ	16.387 06	=	milliliters (mL)
Length	miles (mi)	Х	1.609 344ª	=	kilometers (km)
3	yards (yd)	Х	0.914 4ª	=	meters (m)
	feet (ft)	Х	0.304 8ª	=	meters (m)
	inches (in)	х	2.54 ^b	=	centimeters (cm)
Area	acres	Х	0.404 69	=	hectares (ha)
	square miles (mi ²)	Х	2.589 988	=	square kilometers (km²)
	square yards (yd²)	Χ	0.836 127 4	=	square meters (m²)
	square feet (ft ²)	Χ	0.092 903 04°	=	square meters (m ²)
	square inches (in ²)	X	6.451 6 ^b	=	square centimeters (cm ²)
Temperature	degrees Fahrenheit (°F)	Х	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)	Х	4.186 8 ^a	=	joules (J)
	Kilowatthours (kWh)	Х	3.6 ^a	=	megajoules (MJ)

^aExact conversion.
^bCalculated by the Energy Information Administration.

[°]To 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	С
10 ³	kilo	k	10 ⁻³	milli	m
10 ⁶	mega	М	10 ⁻⁶	micro	
10 ⁹	giga	G	10 ⁻⁹	nano	n
10 ¹²	tera	Т	10 ⁻¹²	pico	р
10 ¹⁵	peta	Р	10 ⁻¹⁵	femto	f
10 ¹⁸	exa	E	10 ⁻¹⁸	atto	а
10 ²¹	zetta	Z	10 ⁻²¹	zepto	Z
10 ²⁴	yotta	Υ	10 ⁻²⁴	yocto	у

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	multiplied by	Conversion Factor	equals	Final Unit
Petroleum	barrels (bbl)	х	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)	х	1,000 ^a	=	kilograms (kg)
Wood	cords (cd)	x	1.25 ^b	=	shorts tons
	cords (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

Appendix C. Carbon Dioxide Emission Factors for Coal

Table C1 presents U.S. average carbon dioxide emission factors for coal by sector. The factors measure the emissions produced during the combustion of coal and were derived by the Energy Information Administration (EIA) from 5,426 sample analyses in EIA's Coal Analysis File. The factors are ratios of the carbon

dioxide emitted to the heat content of the coal burned, assuming complete combustion. Factors vary according to the rank and geographic origin of the coal. Sectoral factors reflect the rank and origin of the coal consumed in the sector.

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

		Industrial			
Year	Residential and Commercial	Coke Plants ^a	Other Coal	Electric Utilities	U.S. Average [♭]
1980	210.6	205.8	205.9	206.7	206.5
1981	212.0	205.8	205.9	206.9	206.7
1982	210.4	205.7	206.0	207.0	206.9
1983	209.2	205.5	205.9	207.1	207.0
1984	209.5	205.6	206.2	207.1	207.0
1985	209.3	205.6	206.4	207.3	207.1
1986	209.2	205.4	206.5	207.3	207.1
1987	209.4	205.2	206.4	207.3	207.2
1988	209.1	205.3	206.4	207.6	207.3
1989	209.7	205.3	206.6	207.5	207.3
1990	209.5	206.2	206.8	207.6	207.4
1991	210.2	206.2	206.9	207.7	207.5
1992	211.2	206.2	207.1	207.7	207.6
1993	209.9	206.2	207.0	207.8	207.7
1994	209.8	206.3	207.2	207.9	207.8
1995	210.2	206.4	207.2	208.1	207.9
1996	209.5	206.5	207.0	208.1	208.0
1997	210.2	206.6	207.2	208.2	208.0
1998	209.7	206.7	206.9	204.4	206.9
1999	208.8	206.7	207.0	204.6	204.8

^aNo allowances have been made for carbon retained in non-energy coal chemical byproducts from the carbonization process. ^bWeighted average. The weights used are consumption values by sector.or on telephone number 301–975–4220. Web Page: http://www.eia.doe.gov/emeu/mer/append.html

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

Appendix D. List of Features

The following is a complete list of features that have appeared in the *Monthly Energy Review* since the first issue was published in October 1974. There are several categories of features on the list: "Energy Plugs" are synopses of recently released EIA products. "Articles" cover a wide range of energy-related subjects in depth; "Highlights" summarize the most important information presented in the subject Energy Information

Administration (EIA) report; "Energy Previews" provide brief overviews of EIA preliminary energy data on a given topic; "EIA Data News" items present information on recent changes in the scope, design, methodology, and findings of EIA's energy surveys and databases; and "Energy Snapshots" use graphics to set off key data from EIA survey reports.

Feature	Cover Date
2002	
Energy Plug: Performance Profiles of Major Energy Producers 2000	. January 2002
Energy Plug: Voluntary Reporting of Greenhouse Gases 2000	. February 2002
Energy Plug: Analysis of Corporate Average Fuel Economy Standards for Light Trucks and Increased	
Alternative Fuel Use	
Energy Plug: Summer 2002 Motor Gasoline Outlook.	•
Energy Plug: International Energy Outlook 2002	
Energy Plug: Weekly Natural Gas Storage Report	
Energy Plug: International Energy Annual 2000.	
Energy Plug: Delivered Energy Consumption Projections by Industry	
Energy Plug: Biomass for Electricity Generation	
Energy Plug: Measuring Changes in Energy Efficiency	
Energy Flug. Weasuring Changes in Energy Eniciency	. July 2002
2001	
Energy Plug: Energy Education Resources	. January 2001
Energy Plug: Impact of Interruptible Natural Gas Service on Northeast Heating Oil Demand	. February 2001
Energy Plug: Performance Profiles of Major Energy Producers 1999	
Energy Plug: Renewable Energy 2000: Issues and Trends	
Energy Plug: Summer 2001 Motor Gasoline Outlook	. April 2001
Energy Plug: International Energy Outlook 2001	
Energy Plug: State Energy Data Report 1999: Consumption Estimates	
Energy Plug: The Transition to Ultra-Low-Sulfur Diesel Fuel: Effects on Prices and Supply	
Energy Plug: Energy Market Maps	
Energy Plug: Coal Industry Annual 1999	
Energy Plug: Annual Energy Review 2000	
Energy Plug: World Energy "Areas To Watch"	
Energy Plug: Electric Power Annual 2000, Volume I	
Energy Plug: Fuel Oil and Kerosene Sales 2000.	
Energy Plug: The Majors' Shift to Natural Gas.	
Energy Plug: Annual Energy Outlook 2002, Early Release	
Energy Plug: Emissions of Greenhouse Gases in the United States 2000	
Energy Plug: State Energy Price and Expenditure Report 1999	
Energy Plug: Energy Education Resources	. December 2001
Energy Plug: U.S. Natural Gas Markets: Mid-Term Prospects for Natural Gas Supply	
2000	
Energy Plug: Inventory of Nonutility Electric Power Plants in the United States 1998	. January 2000
Energy Plug: The Changing Structure of the Electric Power Industry 1999: Mergers and Other	January 2000
Corporate Combinations	
Energy Plug: International Energy Annual 1998.	
Energy Plug: OPEC Revenues Fact Short	
Energy Plug: OPEC Revenues Fact Sheet	
Energy Plug: Country Analysis Brief: Iran	. IVIATOTI ZUUU

2000 (Continued)	
Energy Plug: International Energy Outlook 2000	April 2000
Energy Plug: Outlook for Biomass Ethanol Production and Demand Energy Plug: Summer 2000 Motor Gasoline Outlook	April 2000 May 2000
Energy Plug: State Energy Price and Expenditure Report 1997	June 2000
Energy Plug: Energy Consumption and Renewable Energy Development Potential on Indian Lands	June 2000
Energy Plug: Annual Energy Review 1999	July 2000
Energy Plug: A Primer on Gasoline Prices	August 2000
Energy Plug: Long-Term World Oil Supply: A Resource Base/Production Path Analysis Energy Plug: U.S. Carbon Dioxide Emissions From Energy Sources: 1999 Flash Estimate	August 2000 September 2000
Energy Plug: The Electric Transmission Network: A Multi-Region Analysis	September 2000 September 2000
Energy Plug: Propane Prices: What Consumers Should Know	October 2000
Energy Plug: Winter Fuels Outlook: 2000-2001	October 2000
Energy Plug: Advance Summary: U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves 1999	O-t-h 2000
Annual Report	October 2000 November 2000
Energy Plug: The Changing Structure of the Electric Power Industry 2000: An Update	November 2000
Energy Plug: Annual Energy Outlook 2001 Early Release	December 2000
Energy Plug: Residential Heating Oil Prices: What Consumers Should Know	December 2000
1999	
Energy Plug: Performance Profiles of Major Energy Producers 1997	January 1999
Energy Plug: State Energy Data Report 1996	February 1999
Energy Plug: State Electricity Profiles	March 1999
Energy Plug: International Energy Annual 1997	April 1999
Energy Plug: International Energy Outlook 1999	April 1999
Energy Plug: Natural Gas 1998: Issues and Trends	May 1999 June 1999
Energy Plug: Electric Power Annual 1998, Volume I	July 1999
Energy Plug: Energy in the Americas	August 1999
Energy Plug: State Energy Data Report 1997	September 1999
Energy Plug: The U.S. Coal Industry in the 1990s: Low Prices and Record Production	September 1999
Energy Plug: Issues in Midterm Analysis and Forecasting 1999	October 1999
Energy Plug: 1999-2000 Winter Fuels Outlook	November 1999
Energy Plug: Emissions of Greenhouse Gases in the United States 1998	November 1999 December 1999
Energy Plug: Energy in Africa.	December 1999
	2000201 1000
1998	I 1000
Energy Plug: Performance Profiles of Major Energy Producers 1996	January 1998 February 1998
Energy Plug: Assessment of Summer 1997 Motor Gasoline Price Increase	April 1998
Energy Plug. Deliverability on the interstate natural Gas Pipeline System	
Energy Plug: Deliverability on the Interstate Natural Gas Pipeline System	May 1998 June 1998
Energy Plug: The Changing Structure of the Electric Power Industry: Selected Issues, 1998	May 1998
Energy Plug: The Changing Structure of the Electric Power Industry: Selected Issues, 1998 Energy Plug: Annual Energy Review 1997 Energy Plug: State Energy Price and Expenditure Report 1995	May 1998 June 1998 July 1998 August 1998
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Glossary

Alcohol Fuels: See Fuel Ethanol.

Anthracite: The highest rank of coal. It is a hard, brittle, and black lustrous coal, often referred to as hard coal, containing a high percentage of fixed carbon and a low percentage of volatile matter. It is used primarily for residential and commercial space heating. The moisture content of fresh-mined anthracite generally is less than 15 percent. The heat content of anthracite ranges from 22 to 28 million Btu per ton on a moist, mineral-matter-free basis. The heat content of anthracite coal consumed in the United States averages 25 million Btu per ton, on the as-received basis (i.e., containing both inherent moisture and mineral matter). Note: Since the 1980s anthracite refuse or mine waste has been used for steam-electric power generation. This fuel typically has a heat content of 15 million Btu per ton or less.

Anthracite Culm: Waste from Pennsylvania anthracite preparation plants, consisting of coarse rock fragments containing as much as 30 percent small-sized coal; sometimes defined as including very fine coal particles called silt. Its heat value ranges from 8 to 17 million Btu per short ton.

Asphalt: A dark-brown-to-black cement-like material containing bitumens as the predominant constituents obtained by petroleum processing. The definition includes crude asphalt as well as the following finished products: cements, fluxes, the asphalt content of emulsions (exclusive of water), and petroleum distillates blended with asphalt to make cutback asphalts.

ASTM: The American Society for Testing and Materials.

Aviation Gasoline Blending Components: Naphthas that are used for blending or compounding into finished aviation gasoline (e.g., straight-run gasoline, alkylate, and reformate). Excludes oxygenates (alcohols and ethers), butane, and pentanes plus.

Aviation Gasoline, Finished: All special grades of gasoline used in aviation reciprocating engines, as given in ASTM Specification D910 and Military Specification MIL-G-5572. Excludes blending components that will be used in blending or compounding into finished aviation gasoline.

Barrel (Petroleum): A unit of volume equal to 42 U.S. gallons.

Base (Cushion) Gas: The volume of gas needed as a permanent inventory to maintain adequate underground storage reservoir pressures and deliverability rates throughout the withdrawal season. All native gas is included in the base gas volume.

Bituminous Coal: A dense, black coal, often with well-defined bands of bright and dull material. Bitumi-

nous coal is the most abundant coal in active U.S. mining regions. It is used primarily as fuel in steam-electric power generation, with substantial quantities also used for heat and power applications in manufacturing and to make coke. Its moisture content usually is less than 20 percent. The heat content of bituminous coal ranges from 21 to 30 million Btu per ton on a moist, mineral-matter-free basis. The heat content of bituminous coal consumed in the United States averages 24 million Btu per ton, on the as-received basis (i.e., containing both inherent moisture and mineral matter).

British Thermal Unit (Btu): The quantity of heat needed to raise the temperature of 1 pound of water by 1° F at or near 39.2° F. See Heat Content of a Quantity of Fuel, Gross and Heat Content of a Quantity of Fuel, Net.

Bunker Oil: Fuels supplied to ships and aircraft in international transportation, irrespective of the flag of the carrier, consisting primarily of residual, distillate, and jet fuel oils.

Butane: A normally gaseous straight-chain or branched-chain hydrocarbon (C_4H_{10}). It is extracted from natural gas or refinery gas streams. It includes isobutane and normal butane and is designated in ASTM Specification D1835 and Gas Processors Association Specifications for commercial butane.

Isobutane: A normally gaseous branched-chain hydrocarbon. It is a colorless paraffinic gas that boils at a temperature of 10.9° 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 Rank: The classification of coals according to their degree of progressive alteration from lignite to anthracite. In the U.S. classification, the ranks include lignite, subbituminous coal, bituminous coal, and anthracite, and are based on fixed carbon, volatile matter, heating value, and agglomerating (or caking) properties.

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.

Cogenerator: A generating facility that produces electricity and another form of useful energy (such as heat or steam) used for industrial, commercial, heating, or cooling purposes. See **Nonutility Power Producers.**

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.

Commercial Sector: An energy-consuming sector that consists of service-providing facilities 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.

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 that is not generated by 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 pro-

cessing plants and mixed with crude oil are likewise excluded.

Crude Oil Landed Cost: The price of crude oil at the port of discharge, including charges associated with the purchase, transporting, and insuring of a cargo from the purchase point to the port of discharge. The cost does not include charges incurred at the discharge port (e.g., import tariffs or fees, wharfage charges, and demurrage).

Crude Oil Refinery Input: The total crude oil put into processing units at refineries.

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

Crude Oil Used Directly: Crude oil consumed as fuel by crude oil pipelines and on crude oil leases.

Cubic Foot (Natural Gas): A unit of volume equal to 1 cubic foot at a pressure base of 14.73 pounds standard per square inch absolute and a temperature base of 60° 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-days, the Nation is divided into nine Census regions, each comprising from three to eight States, which are assigned weights based

on the ratio of the population of the region to the total population of the Nation. Degree-day readings for each region are multiplied by the corresponding population weight for each region and those products are then summed to arrive at the national population-weighted degree-day figure.

Design Electrical Rating, Net: The nominal net electrical output of a nuclear unit as specified by the electric utility for the purpose of plant design.

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

Distillate Fuel Oil: A general classification for one of the petroleum fractions produced in conventional distillation operations. Included are products known as No. 1, No. 2, and No. 4 fuel oils and No. 1, No. 2, and No. 4 diesel fuels. It is used primarily for space heating, on-and off-highway diesel engine fuel (including railroad engine fuel and fuel for agricultural machinery), and electric power generation.

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

Dry Natural Gas Production: 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 Capacity: The maximum load of electric power, commonly expressed in **kilowatts** (kW) or megawatts (MW), by which generators, turbines, transformers, transmission circuits, stations, and systems are rated.

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 pumped-storage plants is regarded as electricity for station service and is deducted from gross generation.

Electricity Sales: The amount of kilowatthours sold in a given period of time; usually grouped by classes of service, such as residential, commercial, industrial, and other. "Other" sales include sales for public street and highway lighting and other sales to public authorities, sales to railroads and railways, and interdepartmental sales.

Electric Power: The rate at which electric energy is transferred. Electric power is measured by capacity and is commonly expressed in **kilowatts** (kW) or megawatts (MW).

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 all utility and nonutility facilities and equipment used to generate, transmit, and/or distribute electricity. See Electric Utility and Nonutility Power Producer.

Electric Utility: A corporation, person, agency, authority, or other legal entity or instrumentality that owns and/or operates facilities for the generation, transmission, distribution, or sale of electric energy for use primarily by the public. Utilities provide electricity within a designated franchised service area and file forms listed in the *Code of Federal Regulations*, Title 18, Part 141. *Note:* Facilities that qualify as cogenerators or small power producers under the Public Utility Regulatory Policies Act (PURPA) are not considered electric utilities. See Nonutility Power Producer.

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-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 (C_2H_6). It is a colorless, paraffinic gas that boils at a temperature of -127.48° F. It is extracted from natural gas and refinery gas streams.

Ethanol: See Fuel Ethanol.

Ethylene: An olefinic hydrocarbon (C_2H_4) recovered from refinery processes or petrochemical processes.

Exploratory Well: A well drilled to find and produce oil or gas in an 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 the 50 States and the District of Columbia to foreign countries and to Puerto Rico, the Virgin Islands, and other U.S. possessions and territories.

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.

f.a.s.: See Free Alongside Ship.

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.: See Free on Board.

Footage Drilled: Total footage for wells in various categories, as reported for any specified period, includes (1) the deepest total depth (length of well bores) of all wells drilled from the surface, (2) the total of all bypassed footage drilled in connection with reported wells, and (3) all new footage drilled for directional sidetrack wells. Footage reported for directional sidetrack wells does not include footage in the common bore, which is reported as footage for the original well. In the case of old wells drilled deeper, the reported footage is that which was drilled below the total depth of the old well.

Former U.S.S.R.: See U.S.S.R.

Fossil Fuel: 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.

Free Alongside Ship (f.a.s.): The value of a commodity at the port of exportation, generally including the purchase price, plus all charges incurred in placing the commodity alongside the carrier at the port of exportation.

Free on Board (f.o.b.): A sales transaction in which the seller makes the product available at a given port and price and the buyer pays for the transportation and insurance.

Fuel Ethanol: An anhydrous, denatured aliphatic alcohol (C_2H_5OH) intended for motor gasoline blending. See **Oxygenates.**

Full-Power Operation: Operation of a nuclear generating unit at 100 percent of its design capacity. Full-power operation precedes commercial operation.

Gasohol: A blend of finished motor gasoline containing 10 percent or less alcohol (generally ethanol but sometimes methanol). See Motor Gasoline, Oxygenated.

Gas-Turbine Electric Power Plant: A plant in which the prime mover is a gas turbine. A gas turbine typically consists of an axial-flow air compressor, one or more combustion chambers where liquid or gaseous fuel is burned and the hot gases expand to drive the generator and then are used to run the compressor.

Gas Well: A well completed for the production of natural gas from one or more gas zones or reservoirs. (Wells producing both crude oil and natural gas are classified as oil wells.)

Geothermal Energy: 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.

Household: A family, an individual, or a group of up to nine unrelated persons occupying the same housing unit. "Occupy" means that the housing unit is the person's usual or permanent place of residence.

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 foreign countries and from Puerto Rico, the Virgin Islands, and other U.S. possessions and territories.

Independent Power Producer: A corporation, person, agency, authority, or other legal entity or instrumentality which is a wholesale electricity producer that operates within the franchised service territory of a host electric utility and is usually authorized to sell at market-based rates. Unlike traditional electric utilities, independent power producers do not possess transmission facilities, unless authorized by law, nor do they sell electricity in the retail market. Independent power producers are considered to be nonutility power producers.

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; agriculture, forestry, and fisheries; mining; and construction. 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.

Injections (Natural Gas): Natural gas injected into storage reservoirs.

Institutional Living Quarters: Space provided by a business or organization for long-term housing of individuals whose reason for shared residence is their association with the business or organization. Such quarters commonly have both individual and group living spaces, and the business or organization is responsible for some aspects of resident life beyond the simple provision of living quarters. Examples include prisons; nursing homes and other long-term medical care facilities; military barracks; college dormitories; and convents and monasteries.

Internal Combustion Electric Power Plant: A power plant in which the prime mover is an internal combustion engine. Diesel or gas-fired engines are the principal

types used in electric power plants. The plant is usually operated during periods of high demand for electricity.

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: 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.

Metallurgical Coal: Coking coal and pulverized coal consumed in making steel.

Methane: A colorless, flammable, odorless, hydrocarbon gas (CH₄) that is the principal constituent of natural gas. It is also an important source of hydroge 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.

Nameplate Capacity: The maximum design production capacity specified by the manufacturer of a processing unit or the maximum amount of a product that can be produced running the manufacturing unit at full capacity.

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 Capability: 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.

Nonutility Power Producer: A corporation, person, agency, authority, or other legal entity or instrumentality that owns or operates facilities for electric generation and is not an electric utility. Nonutility power producers include qualifying cogenerators, qualifying small power producers, and other

nonutility generators (including **independent power producers**). Nonutility power producers are without a designated, franchised service area and do not file forms listed in the Code of Federal Regulations, Title 18, Part 141.

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

Nuclear Electric Power Plant: A single-unit or multiunit facility in which heat produced in one or more reactors by the fissioning of nuclear fuel is used to drive one or more steam turbines.

Nuclear Reactor: An apparatus in which the nuclear fission chain can be initiated, maintained, and controlled so that energy is released at a specific rate. The reactor includes fissionable material (fuel), such as uranium or plutonium; fertile material; moderating material (unless it is a fast reactor); a heavy-walled pressure vessel; shielding to protect personnel; provision for heat removal; and control elements and instrumentation.

Octane Rating: A number used to indicate gasoline's antiknock performance in motor vehicle engines. The two recognized laboratory engine test methods for determining the antiknock rating of gasolines are the Research method and the Motor method. To provide a single number as guidance to the consumer, the antiknock index (R + M)/2, which is the average of the Research and Motor octane numbers, was developed.

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.

Oil Well: A well completed for the production of crude oil from one or more oil zones or reservoirs. Wells producing both crude oil and natural gas are classified as oil wells.

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

Petroleum Coke: See Coke, Petroleum.

Petroleum Coke, Catalyst: The carbonaceous residue that is deposited on and deactivates the catalyst used in many catalytic operations (e.g., catalytic cracking). Carbon is deposited on the catalyst, thus deactivating the catalyst. The catalyst is reactivated by burning off the carbon, which is used as a fuel in the refining process. That carbon or coke is not recoverable in a concentrated form.

Petroleum Coke, Marketable: Those grades of coke produced in delayed or fluid cokers that may be recovered as relatively pure carbon. Marketable petroleum coke may be sold as is or may be further purified by calcining.

Petroleum Consumption: The sum of all refined petroleum products supplied. For each refined petroleum product, the amount supplied is calculated by adding production and imports, then subtracting changes in primary stocks (net withdrawals are a plus quantity and net additions are a minus quantity) and exports.

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

Petroleum Products: Products obtained from the processing of crude oil (including lease condensate), natural gas, and other hydrocarbon compounds. Petroleum products include unfinished oils, liquefied petroleum gases, pentanes plus, aviation gasoline, motor gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, distillate fuel oil, residual fuel oil, petrochemical feedstocks, special naphthas, lubricants,

waxes, petroleum coke, asphalt, road oil, still gas, and miscellaneous products.

Petroleum Products Supplied: An approximate measure of consumption. It measures the disappearance of the products from primary sources, i.e., refineries, blending plants, and bulk terminals. In general, products supplied in any given period is computed as follows: field production, plus imports, plus unaccounted-for crude oil (plus net receipts when calculated on a PAD District basis) minus stock change, minus crude oil losses, minus refinery inputs, and minus exports. See also **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 (C_3H_8). It is a colorless paraffinic gas that boils at a temperature of -43.67° F. It is extracted from natural gas or refinery gas streams. It includes all products designated in ASTM Specification D1835 and Gas Processors Association Specifications for commercial propane and HD-5 propane.

Propylene: An olefinic hydrocarbon (C₃H₆) recovered from refinery or petrochemical processes.

Pumped Storage: See Hydroelectric Pumped Storage.

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). Renew-

able sources of energy include conventional hydrolectric 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**.

Residual Fuel Oil: The heavier oils that remain after the distillate fuel oils and lighter hydrocarbons are distilled away in refinery operations and that conform to ASTM Specifications D396 and 975. Included are No. 5, a residual fuel oil of medium viscosity; Navy Special, for use in steam-powered vessels in government service and in shore power plants; and No. 6, which includes Bunker C fuel oil and is used for commercial and industrial heating, for electricity generation, and to power ships. Imports of residual fuel oil include imported crude oil burned as fuel.

Road Oil: Any heavy petroleum oil, including residual asphaltic oil used as a dust palliative and surface treatment on roads and highways. It is generally produced in six grades, from 0, the most liquid, to 5, the most viscous.

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

Short Ton (Coal): A unit of weight equal to 2,000 pounds.

SIC: See Standard Industrial Classification.

Small Power Producer: Under the Public Utility Regulatory Policies Act, a small power production facility (small power producer) generates electricity by using waste or renewable energy (biomass, conventional hydroelectric, wind, solar, and geothermal) as a primary energy source. Fossil fuels can be used, but renewable resources must provide at least 75 percent of the total energy input. See **Nonutility Power Producer**.

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**. Electricity produced from solar energy heats a medium that powers an electricity-generating device.

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.

Spent Liquor: The liquid residue left after an industrial process; can be a component of waste materials used as fuel.

Standard Industrial Classification (SIC): A set of codes developed by the Office of Management and Budget which categorizes industries into groups with similar economic activities.

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

Steam 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.

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

Subbituminous Coal: A coal that ranges in properties from those of lignite to those of bituminous coal. It may be dull, dark brown or black, soft and crumbly, at the lower end of the range, to bright, jet black, hard, and relatively strong, at the upper end. It is used primarily as fuel for steam-electric power generation. Subbituminous coal contains 20 to 30 percent inherent moisture by weight. The heat content of subbituminous coal ranges from 17 to 24 million Btu per ton on a moist, mineral-matter-free basis. The heat content of subbituminous coal consumed in the United States averages 18 million Btu per ton, on the as-received basis (i.e., containing both inherent moisture and mineral matter).

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

Synthetic Natural Gas (SNG): A manufactured product chemically similar in most respects to natural gas, resulting from the conversion or reforming of petroleum hydrocarbons. It may easily be substituted for, or interchanged with, pipeline quality natural gas. Also referred to as substitute natural gas.

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.

Unaccounted-for Crude Oil: Arithmetic difference between the calculated supply and the calculated disposition of crude oil. The calculated supply is the sum of crude oil production and imports, less changes in crude oil stocks. The calculated disposition of crude oil is the sum of crude oil input to refineries, crude oil exports, crude oil burned as fuel, and crude oil losses.

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

Useful Thermal Output: The thermal energy made available for use in any industrial or commercial process, or used in any heating or cooling application, 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 base 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: Industrial, agricultural, and urban refuse used to generate electricity, such as municipal solid waste, landfill gas, methane, digester gas, liquid acetronitrile waste, tall oil, waste alcohol, medical waste, paper pellets, sludge waste, solid byproducts, tires, agricultural byproducts, closed loop biomass, fish oil, and straw.

Watt (W): The unit of electrical power equal to 1 ampere under a pressure of 1 volt. A watt is equal to 1/746 horsepower.

Watthour (Wh): The electrical energy unit of measure equal to 1 watt of power supplied to, or taken from, an electric circuit steadily for 1 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.

Well Servicing Unit: Truck-mounted equipment generally used for downhole services after a well is drilled. Services include well and recompletions, maintenance, repairs, workovers, and well plugging and abandonments. Jobs range from minor operations, such as pulling the rods and rod pumps out of an oil well, replacing the pump and rerunning the assemblage into the well, to major workovers, such as milling out and repairing collapsed casing. Well depth and characteristics determine the type of equipment used.

Wind Energy: The kinetic energy of wind converted into mechanical energy by wind turbines (e.g., blades rotating from a hub) that drive generators to produce electricity.

Withdrawals (Natural Gas): Total volume of gas withdrawn during the applicable reporting period.

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, black liquor, red liquor, spent sulfite liquor, wood sludge, peat, railroad ties, and utility poles.

Working Gas: The gas in a reservoir that is in addition to the base (cushion) gas. It may or may not be completely withdrawn during any particular withdrawal season. Conditions permitting, the total working capacity could be used more than once during any given season.

....from the Energy Information Administration

The reports listed below are available electronically at www.eia.doe.gov. Select Publications: Current and then Natural Gas. EIA also publishes many other reports. For more information, contact the National Energy Information Center at 202-586-8800 or infoctr@eia.doe.gov.

Weekly Natural Gas Storage Report

Estimates of working gas in underground storage in the U.S. and three regions: east, west, and producing. This series replaces the discontinued American Gas Association report.

Natural Gas Weekly Update

Analyzes current price, supply, and storage data; includes a snapshot of the weather.

Natural Gas Monthly

Current data on U.S. natural and supplemental gas production, supply, consumption, disposition, storage, imports, exports, and prices.

Natural Gas Annual 2000

Comprehensive information on the supply and disposition of natural gas in the United States. Summary tables for 1996 through 2000 are presented for each State and Census Division; annual historical data are shown at the national level.

Historical Natural Gas Annual-1930 Through 2000

Supply and disposition of natural gas at the national level for 1930 through 2000 and by State for 1967 through 2000.

Oil and Gas Lease Equipment and Operating Costs, 1986–2000

Regional and national oil and gas equipping and operating cost trends.

U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves 2000 Annual Report

National and State estimates of proved reserves of crude oil, natural gas, and natural gas liquids in the United States as of December 31, 2000.

Oil and Gas Field Code Master List 2001

Comprehensive list of U.S. oil and gas field names as of November 2001.

U.S. Natural Gas Markets: Relationship Between Henry Hub Spot Prices and U.S. Wellhead Prices

Analysis of the relationship between Henry Hub spot prices for natural gas and the U.S. wellhead price from August 1996 through December 2000.

ENERGY FINANCIAL ANALYSIS INFORMATION

....from the Energy Information Administration

All the resources described below, and many others, can be accessed via the Energy Information Administration's World Wide Web site at http://www.eia.doe.gov/emeu/finance/pubs.html unless otherwise noted. Some items are also available in hard copy. For further information on these and hundreds of other EIA products, contact the National Energy Information Center at infoctr@eia.doe.gov or 202–586–8800.

Foreign Direct Investment in U.S. Energy in 2000 (August 2002)

Annual analysis of foreign direct investment in U.S. energy resources, assets, and companies. Describes the role of foreign ownership in U.S. energy enterprises with respect to acquisitions and divestitures, cumulative net investment (including net loans), capital investment, energy operations, and financial performance. Examines patterns of direct investment in foreign energy enterprises by U.S.-based companies.

Performance Profiles of Major Energy Producers 2000 (January 2002)

Examination of financial and operating developments in energy markets, with particular reference to the major U.S.-based energy companies required to report annually on Form EIA-28, "Financial Reporting System."

Restructuring: The Changing Face of Motor Gasoline Marketing (October 2001)

Review of the U.S. motor gasoline marketing industry during the period 1990 to 1999, focusing on changes that occurred during the period. Incorporates financial and operating data from the Energy Information Administration's Financial Reporting System (FRS), motor gasoline outlet counts collected by the *National Petroleum News* from the States, and U.S. Census Bureau salary and employment data published in *County Business Patterns*.

The Majors' Shift to Natural Gas (September 2001)

Investigation of the factors that have guided the United States' major energy producers' growth in U.S. natural gas production relative to oil production.

Corporate Realignments and Investments in the Interstate Natural Gas Transmission System (September 1999)

Financial characteristics of ownership in the natural gas pipeline industry in the United States between 1992 and 1997, focusing on 14 parent corporations. Also examines near-term investment needs of the industry and the anticipated growth in demand for natural gas over the next decade.

Financial Reporting System (FRS) Data

Data on the major U.S. energy-producing companies, in total and by specific functions and geographic areas of operation. Includes data on: revenues, costs, profits; property, plant, and equipment; investments; and more. See http://www.eia.doe.gov/emeu/finance/page1a.html.