

Monthly Energy Review

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May 2010



U.S. Energy Information Administration
Independent Statistics and Analysis

Monthly Energy Review

The *Monthly Energy Review (MER)* is the U.S. Energy Information Administration's (EIA) primary report of recent and historical energy statistics. Included are statistics on total energy production, consumption, trade, and energy prices; overviews of petroleum, natural gas, coal, electricity, nuclear energy, renewable energy, and international petroleum; carbon dioxide emissions; and data unit conversions.

Release of the MER is in keeping with responsibilities given to EIA in Public Law 95-91 (Department of Energy Organization Act), which states, in part, in Section 205(a)(2):

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

The MER is intended for use by Members of Congress, Federal and State agencies, energy analysts, and the general public. EIA welcomes suggestions from readers regarding the content of the MER and other EIA publications.

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- Full report and sections: PDF files
- Report tables: PDF files
- Table data (unrounded): Excel and CSV files
- Graphs: PDF files

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Timing of Release: The MER is posted on the EIA website by the last work day of the month at <http://www.eia.doe.gov/mer/>.

Monthly Energy Review

May 2010

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

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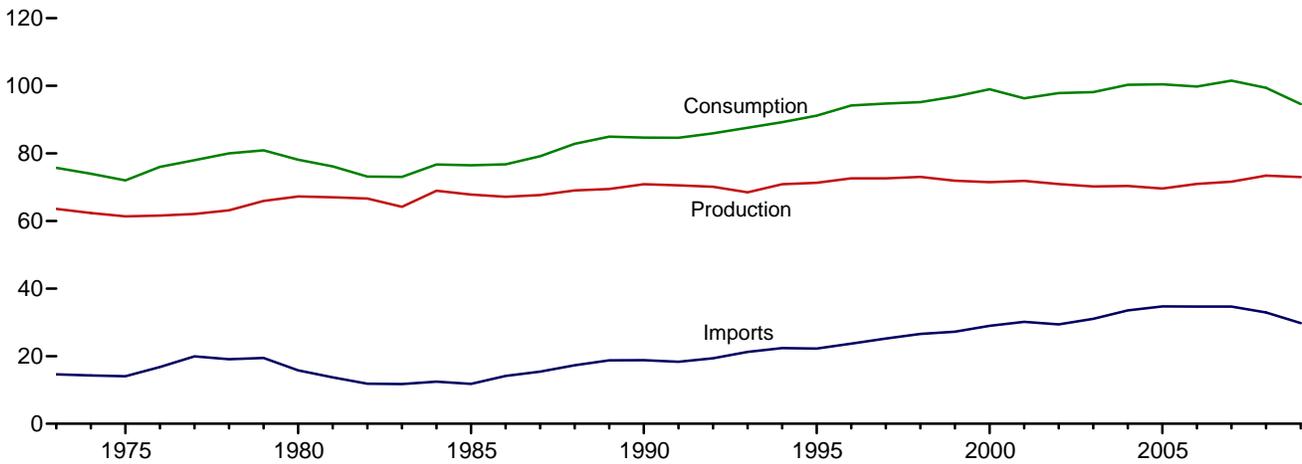
Energy Overview



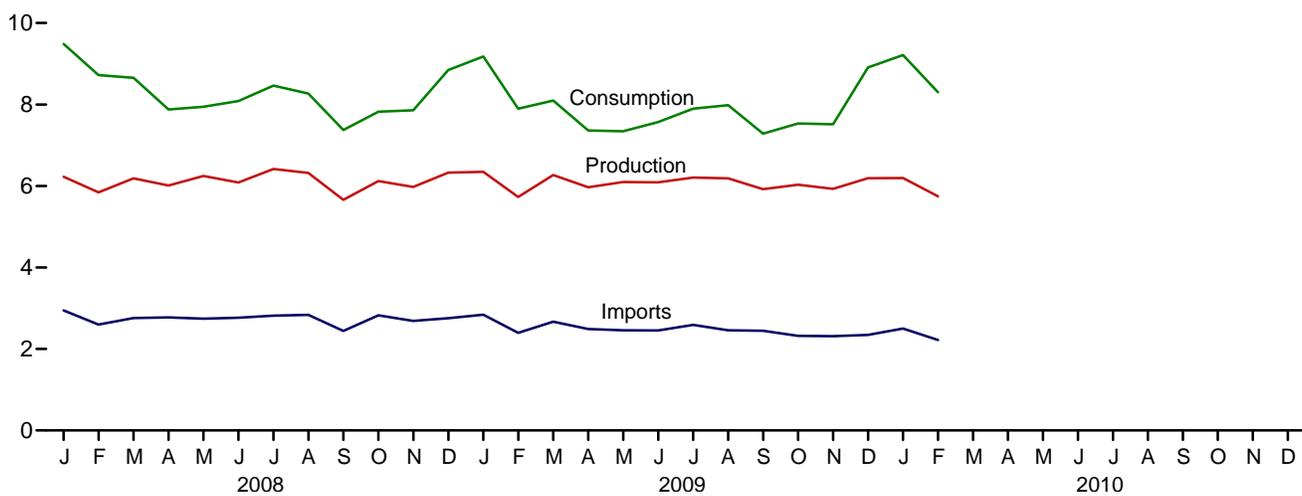
The continental United States at night from orbit. Source: National Oceanic and Atmospheric Administration satellite imagery; mosaic provided by U.S. Geological Survey.

Figure 1.1 Primary Energy Overview
(Quadrillion Btu)

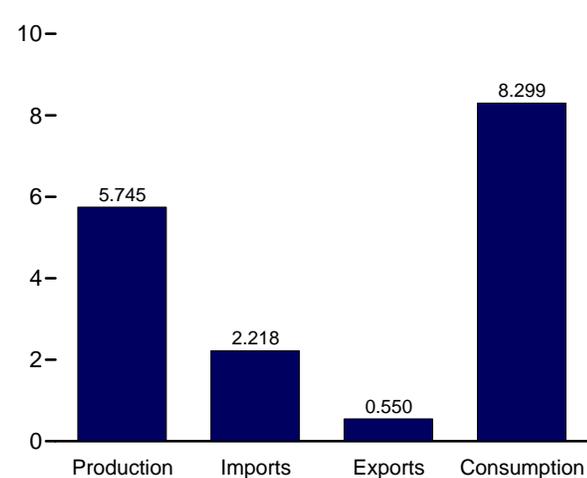
Consumption, Production, and Imports, 1973-2009



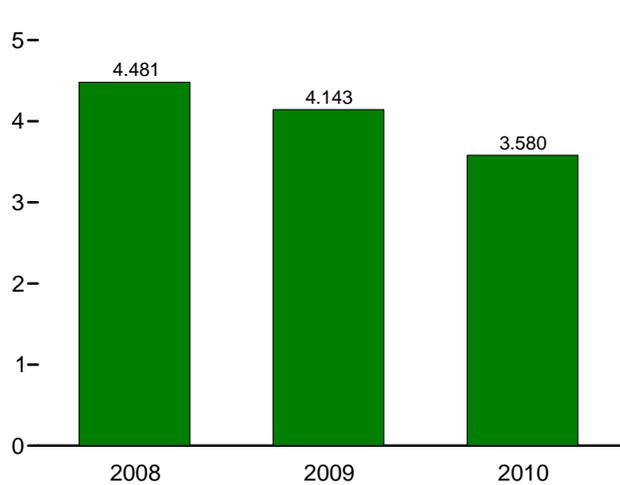
Consumption, Production, and Imports, Monthly



Overview, February 2010



Net Imports, January-February



Web Page: <http://www.eia.doe.gov/emeu/mer/overview.html>.
Source: Table 1.1.

Table 1.1 Primary Energy Overview
(Quadrillion Btu)

	Production				Trade			Stock Change and Other ^d	Consumption			
	Fossil Fuels ^a	Nuclear Electric Power	Renewable Energy ^b	Total	Imports	Exports	Net Imports ^c		Fossil Fuels ^e	Nuclear Electric Power	Renewable Energy ^b	Total ^f
1973 Total	58.241	0.910	4.433	63.585	14.613	2.033	12.580	-0.456	70.316	0.910	4.433	75.708
1975 Total	54.733	1.900	4.723	61.357	14.032	2.323	11.709	-1.067	65.355	1.900	4.723	71.999
1980 Total	59.008	2.739	5.485	67.232	15.796	3.695	12.101	-1.212	69.826	2.739	5.485	78.122
1985 Total	57.539	4.076	6.185	67.799	11.781	4.196	7.584	1.107	66.091	4.076	6.185	76.491
1990 Total	58.560	6.104	6.206	70.870	18.817	4.752	14.065	-.283	72.333	6.104	6.206	84.651
1995 Total	57.540	7.075	6.701	71.316	22.260	4.511	17.750	2.103	77.257	7.075	6.703	91.169
1996 Total	58.387	7.087	7.165	72.639	23.702	4.633	19.069	2.465	79.782	7.087	7.166	94.172
1997 Total	58.857	6.597	7.177	72.631	25.215	4.514	20.701	1.429	80.874	6.597	7.175	94.761
1998 Total	59.314	7.068	6.655	73.037	26.581	4.299	22.281	-.140	81.369	7.068	6.654	95.178
1999 Total	57.614	7.610	6.678	71.903	27.252	3.715	23.537	1.372	82.427	7.610	6.677	96.812
2000 Total	57.366	7.862	6.257	71.485	28.973	4.006	24.967	2.517	84.732	7.862	6.260	98.970
2001 Total	58.541	8.029	5.312	71.883	30.157	3.770	26.386	-1.953	82.902	8.029	5.311	96.316
2002 Total	56.894	8.145	5.892	70.931	29.407	3.668	25.739	1.183	83.749	8.145	5.888	97.853
2003 Total	56.099	7.959	6.139	70.197	31.061	4.054	27.007	.927	84.010	7.959	6.141	98.131
2004 Total	55.895	8.222	6.235	70.352	33.543	4.433	29.110	.851	85.805	8.222	6.247	100.313
2005 Total	55.038	8.161	6.393	69.592	34.710	4.561	30.149	.704	85.793	8.161	6.406	100.445
2006 Total	55.968	8.215	R 6.774	R 70.957	34.673	4.868	29.805	-.973	84.687	8.215	R 6.824	R 99.790
2007 Total	56.447	8.455	R 6.706	R 71.608	34.685	5.448	29.238	.682	86.246	8.455	R 6.719	R 101.527
2008 January	4.872	.739	R .615	R 6.226	2.947	.537	2.410	.851	8.126	.739	R .611	R 9.487
February	4.604	.681	R .557	R 5.842	2.600	.528	2.071	.808	7.473	.681	R .557	R 8.721
March	4.891	.676	R .621	R 6.188	2.759	.608	2.151	.316	7.358	.676	R .613	R 8.655
April	4.788	.599	R .622	R 6.009	2.774	.591	2.183	-.314	6.649	.599	R .622	R 7.879
May	4.883	.678	R .684	R 6.244	2.742	.622	2.120	-.420	6.578	.678	R .680	R 7.944
June	4.661	.735	R .690	R 6.087	2.766	.622	2.144	-.147	6.650	.735	R .689	R 8.084
July	4.981	.777	R .661	R 6.419	2.816	.606	2.210	-.166	7.010	.777	R .661	R 8.463
August	4.948	.759	R .614	R 6.321	2.836	.584	2.251	-.303	6.883	.759	R .613	R 8.270
September	4.413	.701	R .547	R 5.661	2.443	.516	1.927	-.214	6.115	.701	R .548	R 7.374
October	4.897	.657	R .568	R 6.122	2.825	.589	2.236	-.535	6.590	.657	R .570	R 7.822
November	4.745	.663	R .568	R 5.976	2.689	.593	2.096	-.213	6.626	.663	R .566	R 7.859
December	4.931	.762	R .632	R 6.326	2.756	.619	2.137	.382	7.440	.762	R .636	R 8.845
Total	57.613	8.427	R 7.381	R 73.421	32.952	7.016	25.936	.045	83.496	8.427	R 7.366	R 99.402
2009 January	R 4.924	.775	R .650	R 6.349	2.842	.593	2.249	R .582	R 7.751	.775	R .647	R 9.180
February	R 4.500	.671	R .558	R 5.729	2.396	.501	1.895	R .275	6.670	.671	R .549	R 7.898
March	R 4.929	.703	R .638	R 6.270	2.669	.557	2.112	R -.285	6.752	.703	R .638	R 8.097
April	R 4.686	.621	R .663	R 5.970	2.490	.506	1.984	R -.591	R 6.070	.621	R .665	R 7.363
May	R 4.707	.683	R .706	R 6.096	2.458	.534	1.924	R -.677	R 5.941	.683	R .709	R 7.343
June	R 4.666	.729	R .696	R 6.091	2.452	.564	1.889	R -.408	R 6.134	.729	R .697	R 7.571
July	R 4.793	.763	R .653	R 6.208	2.591	.617	1.974	R -.285	6.469	.763	R .653	R 7.898
August	R 4.805	.755	R .627	R 6.187	2.457	.594	R 1.864	R -.068	6.586	.755	R .626	R 7.983
September	R 4.657	.686	R .579	R 5.922	2.448	.598	1.850	R -.486	R 6.011	.686	R .577	R 7.286
October	R 4.788	.606	R .636	R 6.031	R 2.322	R .646	R 1.677	R -.172	R 6.280	.606	R .637	R 7.535
November	R 4.657	.617	R .653	R 5.927	R 2.312	.596	R 1.716	R -.129	R 6.240	.617	R .648	R 7.515
December	R 4.748	.739	R .702	R 6.189	R 2.343	.626	R 1.717	R 1.004	R 7.463	.739	R .696	R 8.910
Total	R 56.860	8.349	R 7.761	R 72.970	R 29.781	R 6.932	R 22.849	R -1.241	R 78.368	8.349	R 7.744	R 94.578
2010 January	R 4.764	.758	R .674	R 6.197	R 2.500	R .588	1.912	R 1.103	R 7.771	.758	R .668	R 9.211
February	4.452	.682	.610	5.745	2.218	.550	1.668	.886	6.999	.682	.606	8.299
2-Month Total	9.216	1.440	1.285	11.941	4.718	1.138	3.580	1.989	14.770	1.440	1.274	17.510
2009 2-Month Total	9.424	1.446	1.208	12.078	5.237	1.094	4.143	.857	14.421	1.446	1.196	17.078
2008 2-Month Total	9.476	1.420	1.172	12.068	5.547	1.065	4.481	1.659	15.598	1.420	1.168	18.208

^a Coal, natural gas (dry), crude oil, and natural gas plant liquids.

^b Most data are estimates. See Tables 10.1-10.2c for notes on series components and estimation.

^c Net imports equal imports minus exports.

^d Includes petroleum stock change and adjustments; natural gas net storage withdrawals and balancing item; coal stock change, losses, and unaccounted for; fuel ethanol stock change; and biodiesel stock change and balancing item.

^e Coal, coal coke net imports, natural gas, and petroleum.

^f Also includes electricity net imports.

R=Revised.

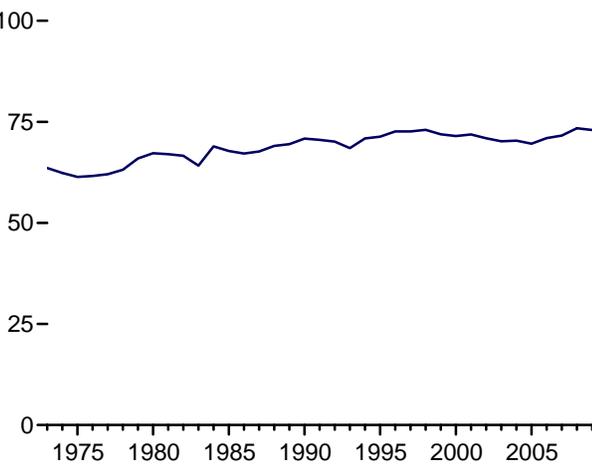
Notes: • See "Primary Energy," "Primary Energy Production," and "Primary Energy Consumption," in Glossary. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/overview.html> for all available data beginning in 1973.

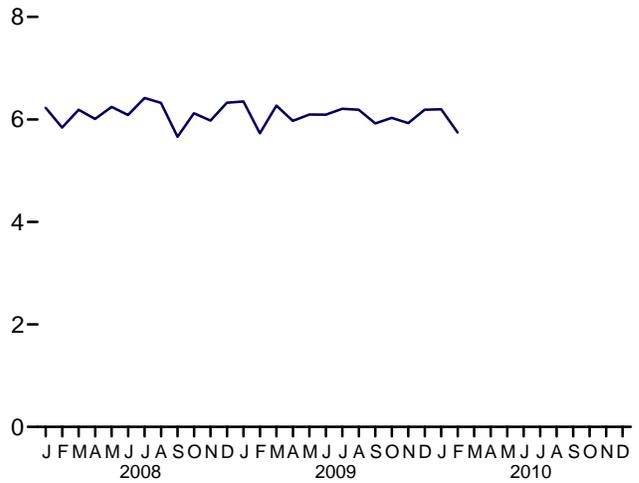
Sources: • **Production:** Table 1.2. • **Trade:** Tables 1.4a and 1.4b. • **Stock Change and Other:** Calculated as consumption minus production and net imports. • **Consumption:** Table 1.3.

Figure 1.2 Primary Energy Production
(Quadrillion Btu)

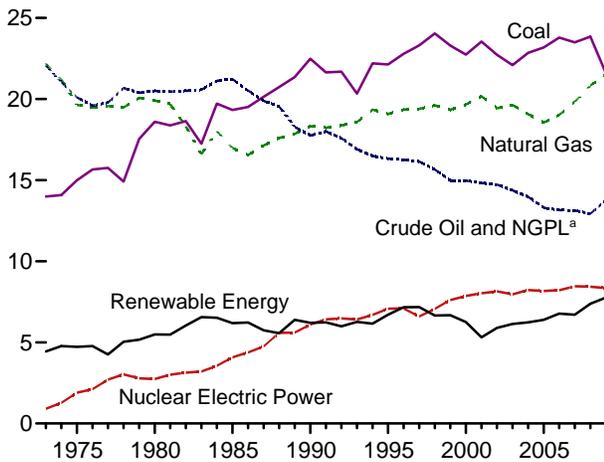
Total, 1973-2009



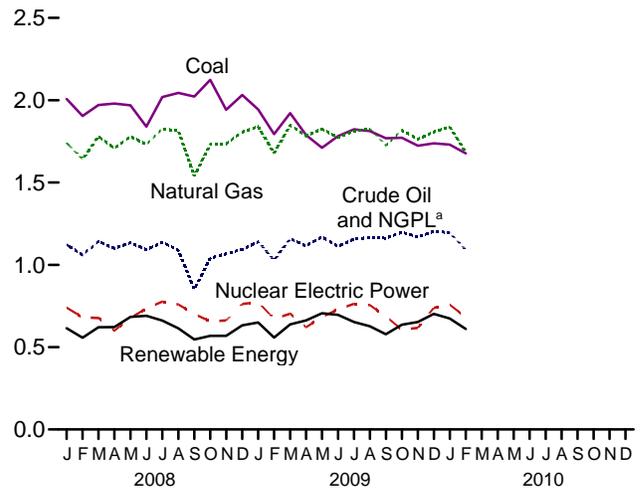
Total, Monthly



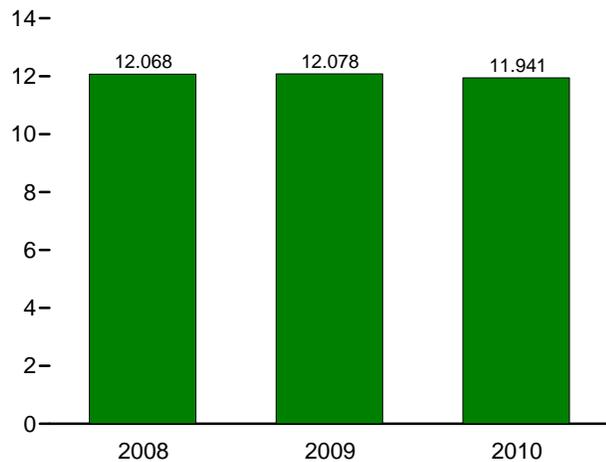
By Source, 1973-2009



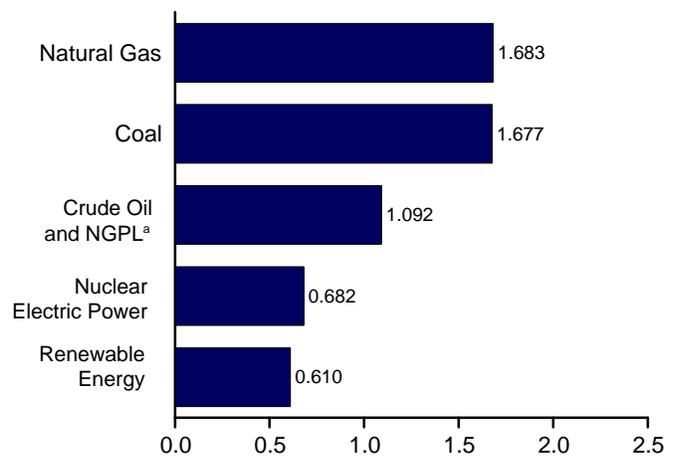
By Source, Monthly



Total, January-February



By Source, February 2010



^a Natural gas plant liquids.
Web Page: <http://www.eia.doe.gov/emeu/mer/overview.html>
Source: Table 1.2.

Table 1.2 Primary Energy Production by Source
(Quadrillion Btu)

	Fossil Fuels					Nuclear Electric Power	Renewable Energy ^a						Total
	Coal ^b	Natural Gas (Dry)	Crude Oil ^c	NGPL ^d	Total		Hydroelectric Power ^e	Geo-thermal	Solar/PV	Wind	Bio-mass	Total	
1973 Total	13.992	22.187	19.493	2.569	58.241	0.910	2.861	0.043	NA	NA	1.529	4.433	63.585
1975 Total	14.989	19.640	17.729	2.374	54.733	1.900	3.155	.070	NA	NA	1.499	4.723	61.357
1980 Total	18.598	19.908	18.249	2.254	59.008	2.739	2.900	.110	NA	NA	2.475	5.485	67.232
1985 Total	19.325	16.980	18.992	2.241	57.539	4.076	2.970	.198	(s)	(s)	3.016	6.185	67.799
1990 Total	22.488	18.326	15.571	2.175	58.560	6.104	3.046	.336	.060	.029	2.735	6.206	70.870
1995 Total	22.130	19.082	13.887	2.442	57.540	7.075	3.205	.294	.070	.033	3.099	6.701	71.316
1996 Total	22.790	19.344	13.723	2.530	58.387	7.087	3.590	.316	.071	.033	3.155	7.165	72.639
1997 Total	23.310	19.394	13.658	2.495	58.857	6.597	3.640	.325	.070	.034	3.108	7.177	72.631
1998 Total	24.045	19.613	13.235	2.420	59.314	7.068	3.297	.328	.070	.031	2.929	6.655	73.037
1999 Total	23.295	19.341	12.451	2.528	57.614	7.610	3.268	.331	.069	.046	2.965	6.678	71.903
2000 Total	22.735	19.662	12.358	2.611	57.366	7.862	2.811	.317	.066	.057	3.006	6.257	71.485
2001 Total	23.547	20.166	12.282	2.547	58.541	8.029	2.242	.311	.065	.070	2.624	5.312	71.883
2002 Total	22.732	19.439	12.163	2.559	56.894	8.145	2.689	.328	.064	.105	2.705	5.892	70.931
2003 Total	22.094	19.633	12.026	2.346	56.099	7.959	2.825	.331	.064	.115	2.805	6.139	70.197
2004 Total	22.852	19.074	11.503	2.466	55.895	8.222	2.690	.341	R .064	.142	2.998	6.235	70.352
2005 Total	23.185	18.556	10.963	2.334	55.038	8.161	2.703	.343	R .066	.178	3.104	6.393	69.592
2006 Total	23.790	19.022	10.801	2.356	55.968	8.215	2.869	.343	R .072	.264	R 3.226	R 6.774	R 70.957
2007 Total	23.493	19.825	10.721	2.409	56.447	8.455	2.446	.349	R .081	.341	R 3.489	R 6.706	R 71.608
2008 January	2.008	1.741	.917	.206	4.872	.739	.205	.029	R .008	.042	R .331	R .615	R 6.226
February	1.904	1.640	.862	.198	4.604	.681	.185	.027	R .007	.038	R .300	R .557	R 5.842
March	1.970	1.779	.926	.215	4.891	.676	.214	.030	R .008	.047	R .321	R .621	R 6.188
April	1.979	1.709	.890	.210	4.788	.599	.219	.030	R .008	.051	R .314	R .622	R 6.009
May	1.969	1.780	.917	.217	4.883	.678	.268	.031	R .008	.053	R .324	R .684	R 6.244
June	1.839	1.731	.887	.204	4.661	.735	.288	.030	R .008	.051	R .313	R .690	R 6.087
July	2.019	1.825	.923	.214	4.981	.777	.252	.031	R .009	.039	R .330	R .661	R 6.419
August	2.044	1.815	.880	.208	4.948	.759	.209	.031	R .009	.032	R .334	R .614	R 6.321
September	2.022	1.539	.684	.168	4.413	.701	.159	.030	R .008	.031	R .319	R .547	R 5.661
October	2.123	1.733	.840	.201	4.897	.657	.152	.031	R .008	.047	R .330	R .568	R 6.122
November	1.942	1.735	.874	.193	4.745	.663	.154	.030	R .008	.049	R .327	R .568	R 5.976
December	2.032	1.806	.909	.185	4.931	.762	.206	.031	R .008	.065	R .323	R .632	R 6.326
Total	23.851	20.834	10.509	2.419	57.613	8.427	2.511	.360	R .097	.546	R 3.867	R 7.381	R 73.421
2009 January	1.944	RE 1.840	E .943	.197	R 4.924	.775	.235	.032	R .009	.059	R .315	R .650	R 6.349
February	1.794	RE 1.678	E .843	.185	R 4.500	.671	.176	.029	R .008	.056	R .288	R .558	R 5.729
March	1.921	RE 1.848	E .948	.212	R 4.929	.703	.214	R .033	R .009	.068	R .314	R .638	R 6.270
April	1.788	RE 1.784	E .910	.205	R 4.686	.621	.250	R .030	R .009	.072	R .301	R .663	R 5.970
May	1.711	RE 1.825	E .950	.221	R 4.707	.683	.290	R .031	R .010	.060	R .315	R .706	R 6.096
June	1.781	RE 1.772	E .902	.210	R 4.666	.729	.287	.030	R .009	.053	R .316	R .696	R 6.091
July	1.823	RE 1.813	E .941	.216	R 4.793	.763	.226	.031	R .010	.046	R .340	R .653	R 6.208
August	1.812	RE 1.826	E .950	.217	R 4.805	.755	.189	R .031	R .010	.052	R .345	R .627	R 6.187
September	1.769	RE 1.726	E .947	.215	R 4.657	.686	.170	R .031	R .009	.043	R .326	R .579	R 5.922
October	1.772	RE 1.817	E .975	.223	R 4.788	.606	.194	.031	R .009	.062	R .340	R .636	R 6.031
November	1.724	RE 1.764	E .951	.218	R 4.657	.617	.206	R .032	R .009	.063	R .343	R .653	R 5.927
December	1.738	RE 1.806	E .982	.222	R 4.748	.739	.244	R .033	R .009	.062	R .354	R .702	R 6.189
Total	21.578	RE 21.500	E 11.241	2.541	R 56.860	8.349	2.682	R .373	R .109	.697	R 3.900	R 7.761	R 72.970
2010 January	1.730	RE 1.839	E .977	.219	R 4.764	.758	.217	R .033	R .009	.063	R .353	R .674	R 6.197
February	1.677	E 1.683	E .887	.204	4.452	.682	.201	.029	.008	.050	.322	.610	5.745
2-Month Total ...	3.407	E 3.521	E 1.864	.423	9.216	1.440	.419	.062	.017	.113	.675	1.285	11.941
2009 2-Month Total ...	3.738	E 3.518	E 1.786	.382	9.424	1.446	.411	.061	.017	.115	.604	1.208	12.078
2008 2-Month Total ...	3.912	3.381	1.778	.404	9.476	1.420	.390	.056	.015	.080	.631	1.172	12.068

^a Most data are estimates. See Tables 10.1-10.2c for notes on series components and estimation.

^b Beginning in 1989, includes waste coal supplied. Beginning in 2001, also includes a small amount of refuse recovery. See Table 6.1.

^c Includes lease condensate.

^d Natural gas plant liquids.

^e Conventional hydroelectric power.

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

Notes: • See "Primary Energy Production" in Glossary. • Totals may not equal

sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/overview.html> for all available data beginning in 1973.

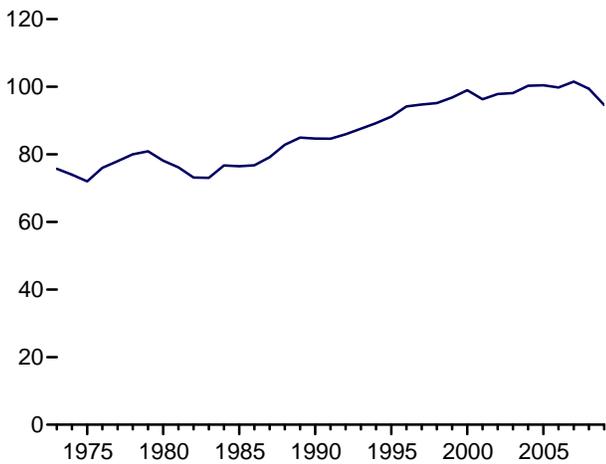
Sources: • Coal: Tables 6.1 and A5. • Natural Gas (Dry): Tables 4.1 and A4. • Crude Oil and Natural Gas Plant Liquids: Tables 3.1 and A2.

• Nuclear Electric Power: Tables 7.2a and A6 ("Nuclear Plants" heat rate).

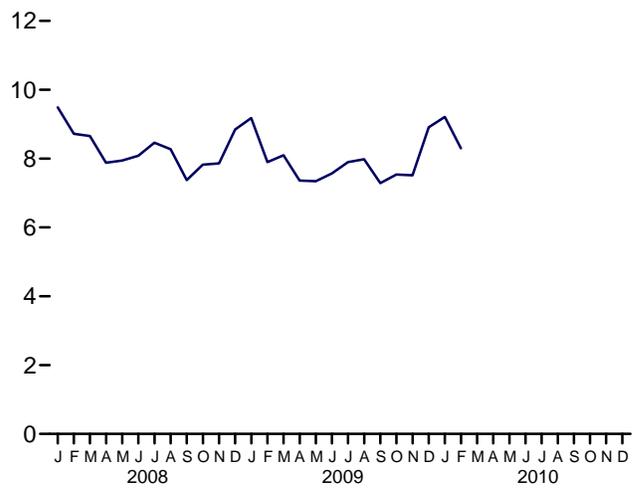
• Renewable Energy: Table 10.1.

Figure 1.3 Primary Energy Consumption
(Quadrillion Btu)

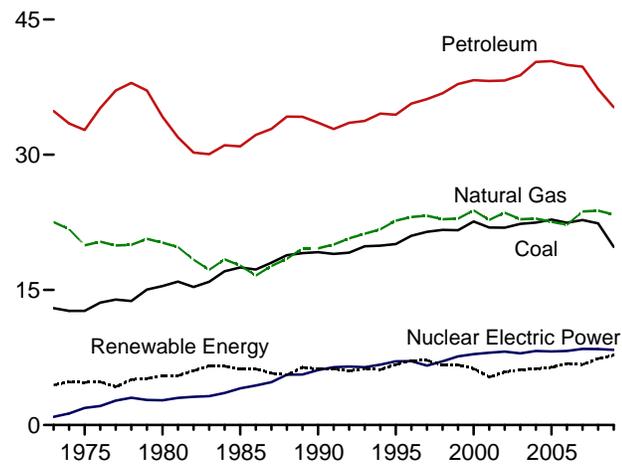
Total, 1973-2009



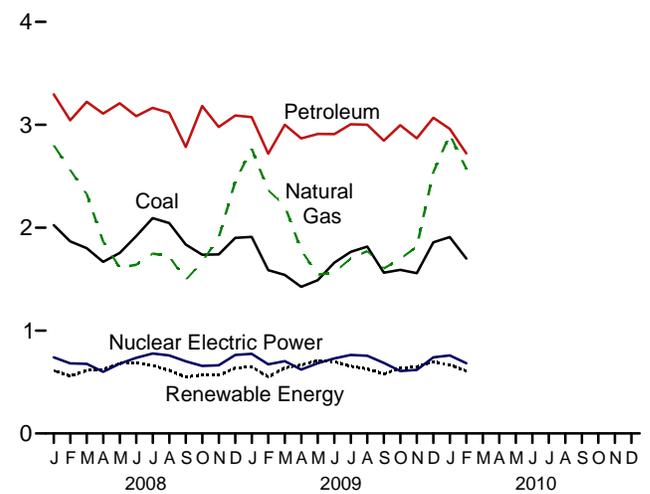
Total, Monthly



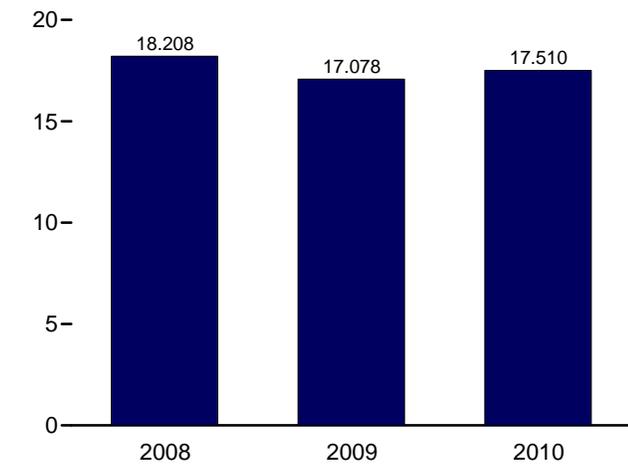
By Source,^a 1973-2009



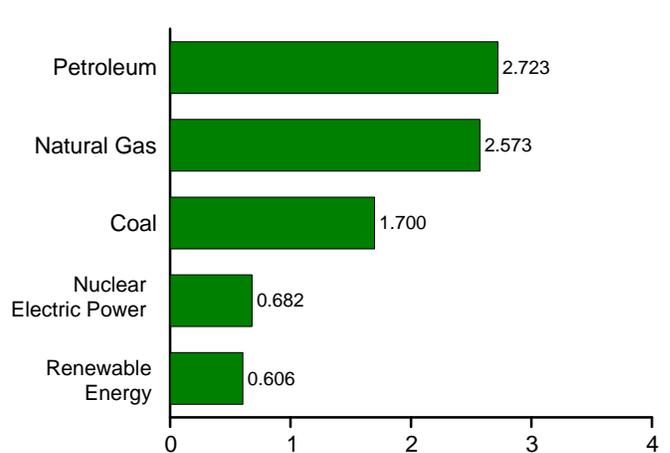
By Source,^a Monthly



Total, January-February



By Source,^a February 2010



^a Small quantities of net imports of coal coke and electricity are not shown.
Web Page: <http://www.eia.doe.gov/emeu/mer/overview.html>.
Source: Table 1.3.

Table 1.3 Primary Energy Consumption by Source
(Quadrillion Btu)

	Fossil Fuels				Nuclear Electric Power	Renewable Energy ^a						Total ^f
	Coal	Natural Gas ^b	Petro-leum ^c	Total ^d		Hydro-electric Power ^e	Geo-thermal	Solar/PV	Wind	Bio-mass	Total	
1973 Total	12.971	22.512	34.840	70.316	0.910	2.861	0.043	NA	NA	1.529	4.433	75.708
1975 Total	12.663	19.948	32.731	65.355	1.900	3.155	.070	NA	NA	1.499	4.723	71.999
1980 Total	15.423	20.235	34.202	69.826	2.739	2.900	.110	NA	NA	2.475	5.485	78.122
1985 Total	17.478	17.703	30.922	66.091	4.076	2.970	.198	(s)	(s)	3.016	6.185	76.491
1990 Total	19.173	19.603	33.553	72.333	6.104	3.046	.336	.060	.029	2.735	6.206	84.651
1995 Total	20.089	22.671	34.436	77.257	7.075	3.205	.294	.070	.033	3.101	6.703	91.169
1996 Total	21.002	23.085	35.673	79.782	7.087	3.590	.316	.071	.033	3.157	7.166	94.172
1997 Total	21.445	23.223	36.159	80.874	6.597	3.640	.325	.070	.034	3.105	7.175	94.761
1998 Total	21.656	22.830	36.816	81.369	7.068	3.297	.328	.070	.031	2.928	6.654	95.178
1999 Total	21.623	22.909	37.837	82.427	7.610	3.268	.331	.069	.046	2.963	6.677	96.812
2000 Total	22.580	23.824	38.263	84.732	7.862	2.811	.317	.066	.057	3.008	6.260	98.970
2001 Total	21.914	22.773	38.185	82.902	8.029	2.242	.311	.065	.070	2.622	5.311	96.316
2002 Total	21.904	23.558	38.225	83.749	8.145	2.689	.328	.064	.105	2.701	5.888	97.853
2003 Total	22.321	22.831	38.808	84.010	7.959	2.825	.331	.064	.115	2.807	6.141	98.131
2004 Total	22.466	22.909	40.292	85.805	8.222	2.690	.341	R .064	.142	3.010	6.247	100.313
2005 Total	22.797	22.561	40.391	85.793	8.161	2.703	.343	.066	.178	3.117	6.406	100.445
2006 Total	22.447	22.224	39.955	84.687	8.215	2.869	.343	.072	.264	R 3.277	R 6.824	R 99.790
2007 Total	22.749	23.702	39.769	86.246	8.455	2.446	.349	.081	.341	R 3.503	R 6.719	R 101.527
2008 January	2.025	2.801	3.295	8.126	.739	.205	.029	R .008	.042	R .327	R .611	R 9.487
February	1.867	2.561	3.043	7.473	.681	.185	.027	.007	.038	R .300	R .557	R 8.721
March	1.801	2.327	3.222	7.358	.676	.214	.030	.008	.047	R .314	R .613	R 8.655
April	1.667	1.865	3.108	6.649	.599	.219	.030	.008	.051	R .313	R .622	R 7.879
May	1.754	1.613	3.209	6.578	.678	.268	.031	.008	.053	R .320	R .680	R 7.944
June	1.919	1.639	3.083	6.650	.735	.288	.030	.008	.051	R .312	R .689	R 8.084
July	2.092	1.748	3.164	7.010	.777	.252	.031	R .009	.039	R .330	R .661	R 8.463
August	2.045	1.721	3.116	6.883	.759	.209	.031	R .009	.032	R .332	R .613	R 8.270
September	1.836	1.492	2.784	6.115	.701	.159	.030	.008	.031	R .320	R .548	R 7.374
October	1.737	1.669	3.183	6.590	.657	.152	.031	.008	.047	R .332	R .570	R 7.822
November	1.741	1.904	2.979	6.626	.663	.154	.030	R .008	.049	R .325	R .566	R 7.859
December	1.901	2.451	3.090	7.440	.762	.206	.031	R .008	.065	R .326	R .636	R 8.845
Total	22.385	23.791	37.279	83.496	8.427	2.511	.360	R .097	.546	R 3.852	R 7.366	R 99.402
2009 January	1.911	2.768	3.074	R 7.751	.775	.235	.032	R .009	.059	R .312	R .647	R 9.180
February	1.588	2.364	2.720	6.670	.671	.176	.029	R .008	.056	R .280	R .549	R 7.898
March	1.541	R 2.212	3.000	6.752	.703	.214	R .033	R .009	.068	R .315	R .638	R 8.097
April	1.424	1.781	2.868	R 6.070	.621	.250	R .030	R .009	.072	R .304	R .665	R 7.363
May	1.489	R 1.542	2.911	R 5.941	.683	.290	R .031	R .010	.060	R .319	R .709	R 7.343
June	1.659	R 1.567	2.910	R 6.134	.729	.287	R .030	R .009	.053	R .318	R .697	R 7.571
July	1.766	1.700	3.005	6.469	.763	.226	.031	R .010	.046	R .340	R .653	R 7.898
August	1.816	1.773	3.000	6.586	.755	.189	R .031	R .010	.052	R .345	R .626	R 7.983
September	1.562	R 1.605	2.846	R 6.011	.686	.170	R .031	R .009	.043	R .324	R .577	R 7.286
October	1.591	R 1.698	2.995	R 6.280	.606	.194	.031	R .009	.062	R .340	R .637	R 7.535
November	1.557	R 1.815	2.869	R 6.240	.617	.206	R .032	R .009	.063	R .339	R .648	R 7.515
December	1.858	R 2.539	3.069	R 7.463	.739	.244	R .033	R .009	.062	R .349	R .696	R 8.910
Total	19.761	R 23.362	35.268	R 78.368	8.349	2.682	R .373	R .109	.697	R 3.883	R 7.744	R 94.578
2010 January	R 1.909	R 2.905	2.961	R 7.771	.758	.217	R .033	R .009	.063	R .346	R .668	R 9.211
February	1.700	2.573	2.723	6.999	.682	.201	.029	.008	.050	.317	.606	8.299
2-Month Total	3.609	5.478	5.684	14.770	1.440	.419	.062	.017	.113	.663	1.274	17.510
2009 2-Month Total	3.498	5.131	5.794	14.421	1.446	.411	.061	.017	.115	.592	1.196	17.078
2008 2-Month Total	3.892	5.362	6.338	15.598	1.420	.390	.056	.015	.080	.627	1.168	18.208

^a Most data are estimates. See Tables 10.1-10.2c for notes on series components and estimation.

^b Natural gas only; excludes supplemental gaseous fuels. See Note 3, "Supplemental Gaseous Fuels," at end of Section 4.

^c Petroleum products supplied, including natural gas plant liquids and crude oil burned as fuel. Does not include biofuels that have been blended with petroleum—biofuels are included in "Biomass."

^d Includes coal coke net imports. See Tables 1.4a and 1.4b.

^e Conventional hydroelectric power.

^f Includes coal coke net imports and electricity net imports, which are not separately displayed. See Tables 1.4a and 1.4b.

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

Notes: • See "Primary Energy Consumption" in Glossary.

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

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

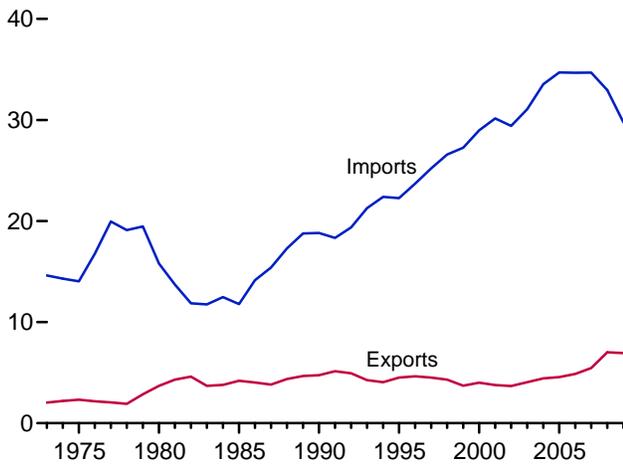
Web Page: See <http://www.eia.doe.gov/emeu/mer/overview.html> for all available data beginning in 1973.

Sources: • **Coal:** Tables 6.1 and A5. • **Natural Gas:** Tables 4.1 and A4.

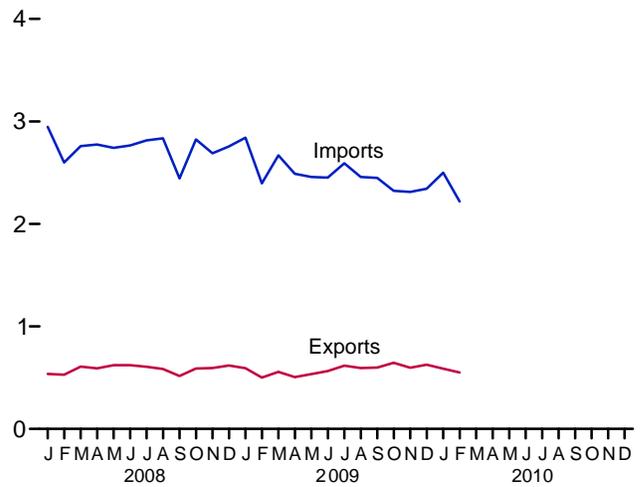
• **Petroleum:** Table 3.6. • **Nuclear Electric Power:** Tables 7.2a and A6 ("Nuclear Plants" heat rate). • **Renewable Energy:** Table 10.1. • **Net Imports of Coal Coke and Electricity:** Tables 1.4a and 1.4b.

Figure 1.4a Primary Energy Imports and Exports
(Quadrillion Btu)

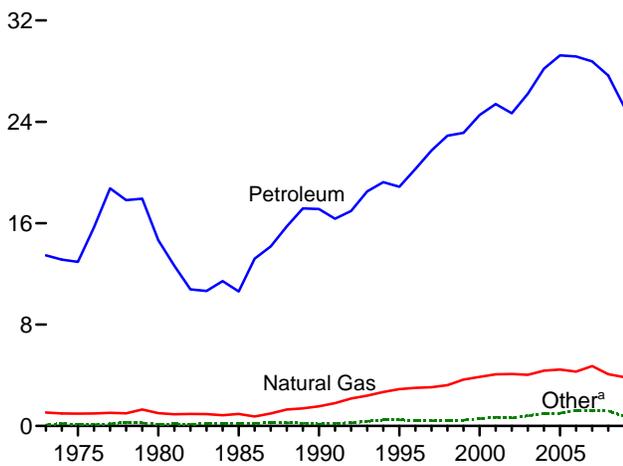
Total Imports and Exports, 1973-2009



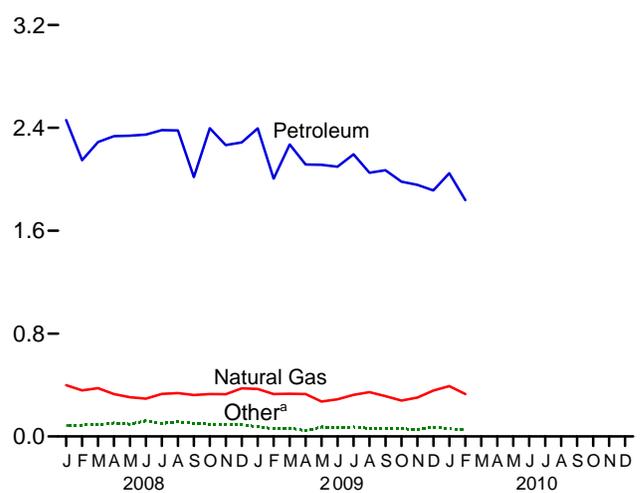
Total Imports and Exports, Monthly



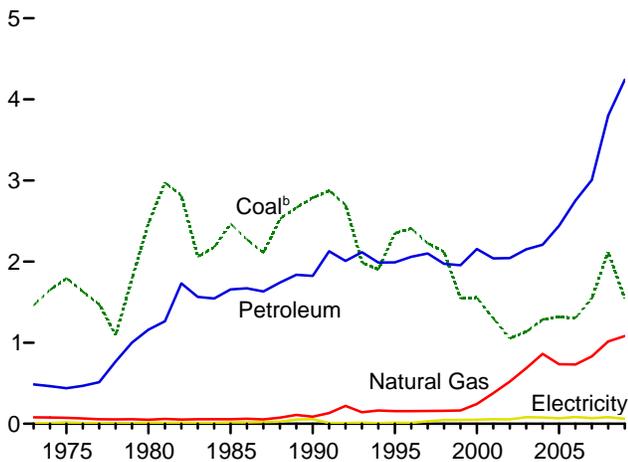
Imports by Source, 1973-2009



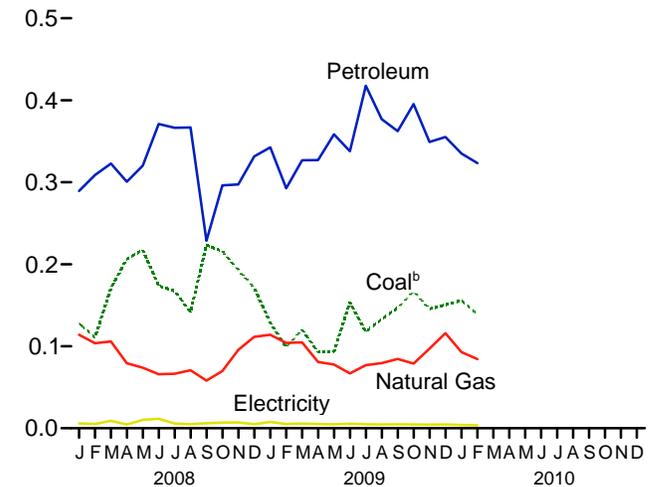
Imports by Source, Monthly



Exports by Source, 1973-2009



Exports by Major Source, Monthly

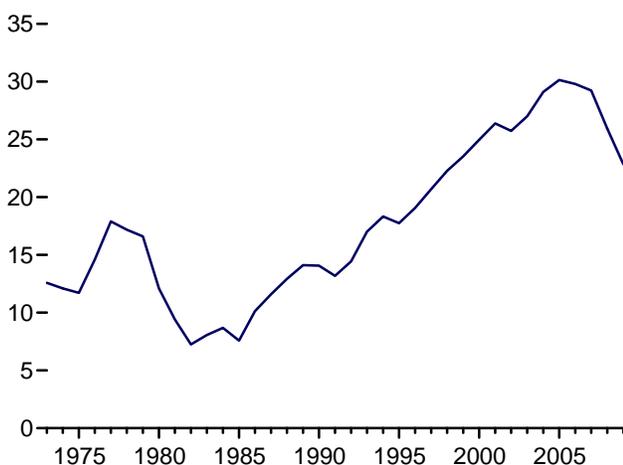


^aCoal, coal coke, biofuels, and electricity.
^bIncludes coal coke.

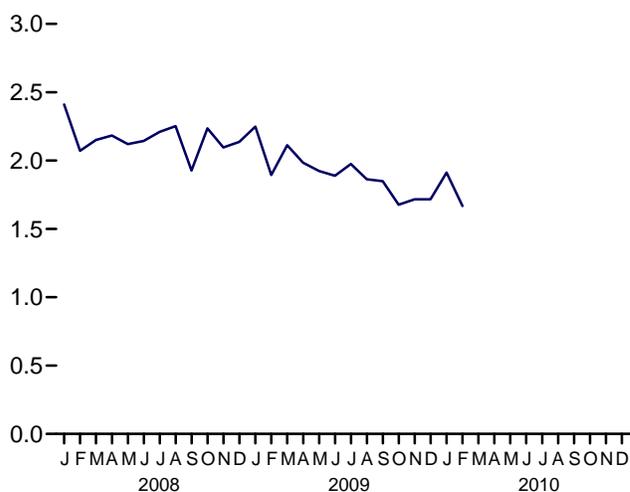
Web Page: <http://www.eia.doe.gov/emeu/mer/overview.html>.
Sources: Tables 1.4a and 1.4b.

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

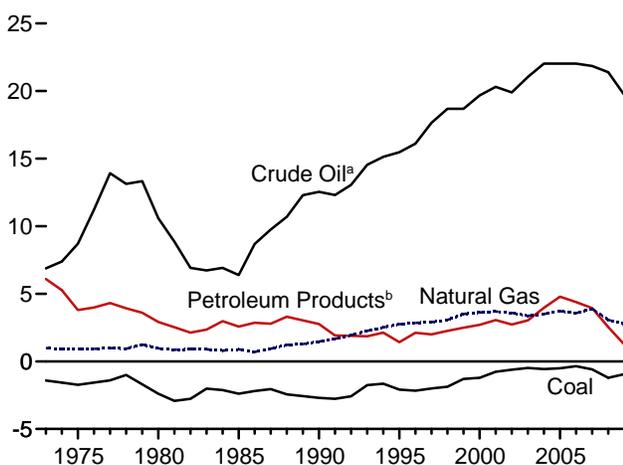
Total, 1973-2009



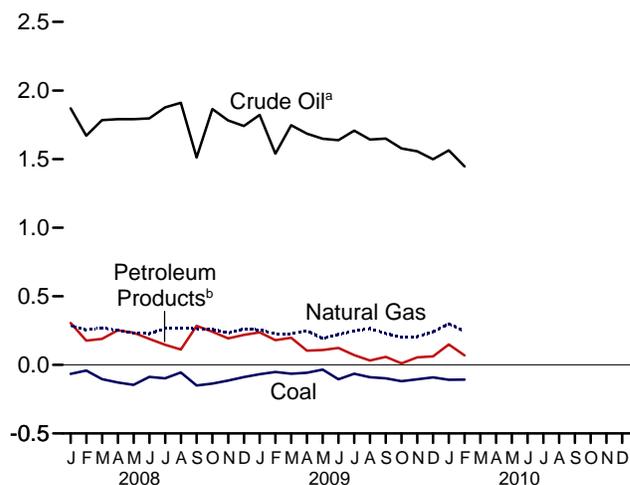
Total, Monthly



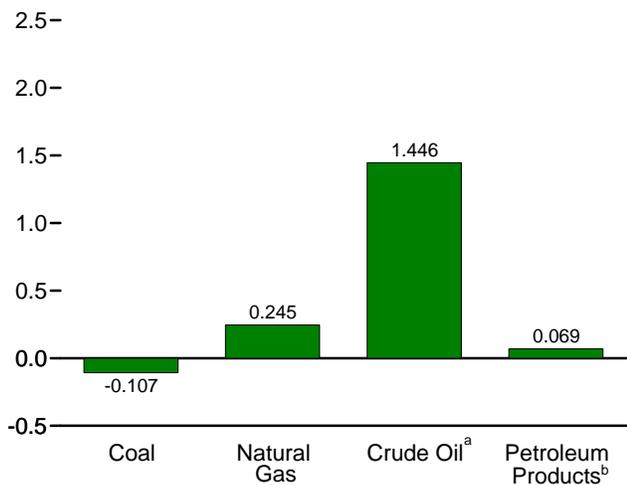
By Major Source, 1973-2009



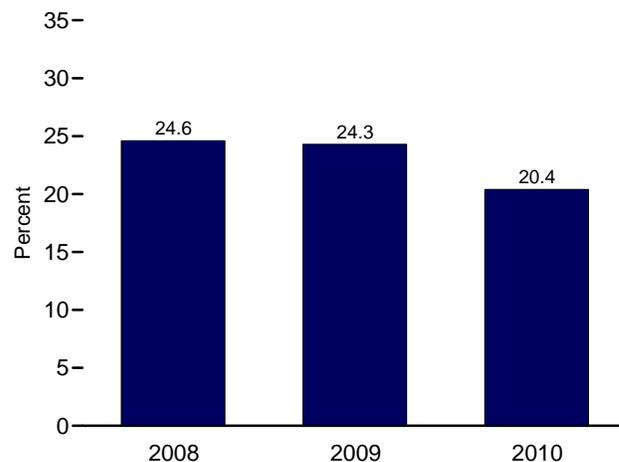
By Major Source, Monthly



By Major Source, February 2010



As Share of Consumption, January-February



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

^bPetroleum products, unfinished oils, pentanes plus, and gasoline

blending components. Does not include biofuels.

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

Sources: Tables 1.3, 1.4a, and 1.4b.

Table 1.4a Primary Energy Imports by Source
(Quadrillion Btu)

	Imports								
	Coal	Coal Coke	Natural Gas	Petroleum			Biofuels ^c	Electricity	Total
				Crude Oil ^a	Petroleum Products ^b	Total			
1973 Total	0.003	0.027	1.060	6.887	6.578	13.466	NA	0.057	14.613
1975 Total .....	.024	.045	.978	8.721	4.227	12.948	NA	.038	14.032
1980 Total .....	.030	.016	1.006	11.195	3.463	14.658	NA	.085	15.796
1985 Total .....	.049	.014	.952	6.814	3.796	10.609	NA	.157	11.781
1990 Total .....	.067	.019	1.551	12.766	4.351	17.117	NA	.063	18.817
1995 Total .....	.237	.095	2.901	15.669	3.211	18.881	.001	.146	22.260
1996 Total .....	.203	.063	3.002	16.341	3.943	20.284	.001	.148	23.702
1997 Total .....	.187	.078	3.063	17.876	3.864	21.740	(s)	.147	25.215
1998 Total .....	.218	.095	3.225	18.916	3.992	22.908	(s)	.135	26.581
1999 Total .....	.227	.080	3.664	18.935	4.198	23.133	(s)	.147	27.252
2000 Total .....	.313	.094	3.869	19.783	4.749	24.531	(s)	.166	28.973
2001 Total .....	.495	.063	4.068	20.348	5.050	25.398	.002	.131	30.157
2002 Total .....	.422	.080	4.104	19.920	4.753	24.673	.002	.125	29.407
2003 Total .....	.626	.068	4.042	21.060	5.158	26.218	.002	.104	31.061
2004 Total .....	.682	.170	4.365	22.082	6.114	28.196	.013	.117	33.543
2005 Total .....	.762	.088	4.450	22.091	7.156	29.247	.013	.152	34.710
2006 Total .....	.906	.101	4.291	22.085	7.077	29.162	.068	.146	34.673
2007 Total .....	.909	.061	4.723	21.914	6.849	28.762	.055	.175	34.685
2008 January .....	.060	.007	.399	1.872	.587	2.459	.005	.017	2.947
February .....	.065	.006	.358	1.674	.474	2.148	.006	.016	2.600
March .....	.066	.009	.376	1.789	.500	2.290	.003	.016	2.759
April .....	.075	.011	.330	1.793	.542	2.335	.009	.014	2.774
May .....	.068	.007	.305	1.795	.544	2.338	.006	.018	2.742
June .....	.082	.013	.294	1.800	.547	2.347	.008	.021	2.766
July .....	.064	.010	.331	1.881	.500	2.382	.008	.021	2.816
August .....	.079	.009	.337	1.917	.463	2.380	.012	.020	2.836
September .....	.069	.006	.322	1.518	.498	2.016	.014	.017	2.443
October .....	.073	.008	.329	1.873	.523	2.396	.006	.012	2.825
November .....	.075	.005	.328	1.787	.478	2.265	.004	.011	2.689
December .....	.080	(s)	.374	1.749	.538	2.287	.004	.012	2.756
Total .....	.855	.089	4.084	21.448	6.195	27.644	.085	.195	32.952
2009 January .....	.058	.001	.369	1.829	.567	2.396	.003	.015	2.842
February .....	.046	(s)	.330	1.544	.461	2.005	.001	.013	2.396
March .....	.054	(s)	.333	1.753	.518	2.270	.002	.010	2.669
April .....	.033	(s)	.330	1.690	.425	2.115	.001	.011	2.490
May .....	.057	.001	.271	1.658	.454	2.113	.002	.014	2.458
June .....	.046	.001	.289	1.648	.450	2.098	.003	.016	2.452
July .....	.050	.001	.324	1.713	.481	2.194	.004	.019	2.591
August .....	.039	(s)	.344	1.649	.401	2.050	.004	.020	2.457
September .....	.046	.001	.314	1.657	.413	2.070	.002	.015	2.448
October .....	.044	(s)	^R .279	1.590	.391	1.981	.002	.016	^R 2.322
November .....	.038	.001	^R .302	1.565	.392	1.956	.002	^R .013	^R 2.312
December .....	.054	.002	.357	1.510	.403	1.913	.001	.016	^R 2.343
Total .....	.566	.009	^R 3.842	19.806	5.354	25.160	.026	^R .179	^R 29.781
2010 January .....	.042	.001	^R .392	1.570	.476	2.046	(s)	.018	^R 2.500
February .....	.031	.005	^E .330	1.456	.382	1.837	(s)	.015	2.218
2-Month Total .....	.073	.006	^E .722	3.025	.858	3.884	.001	.033	4.718
2009 2-Month Total .....	.105	.001	.699	3.373	1.028	4.400	.004	.028	5.237
2008 2-Month Total .....	.125	.012	.758	3.546	1.061	4.607	.011	.033	5.547

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

^b Petroleum products, unfinished oils, pentanes plus, and gasoline blending components. Does not include biofuels.

^c Fuel ethanol (including denaturant) and biodiesel.

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

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

Web Page: See <http://www.eia.doe.gov/emeu/mer/overview.html> for all available data beginning in 1973.

Sources: • **Coal:** Tables 6.1 and A5. • **Coal Coke: 1973-1975**—U.S. Department of the Interior, Bureau of Mines, *Minerals Yearbook*, "Coke and Coal Chemicals" chapter. **1976-1980**—U.S. Energy Information Administration (EIA), *Energy Data Report*, "Coke and Coal Chemicals," annual reports. **1981 forward**—EIA, *Quarterly Coal Report*, quarterly reports. • **Natural Gas:** Tables 4.1 and A4. • **Crude Oil and Petroleum Products:** Tables 3.3b, 10.3, 10.4, and A2. • **Biofuels:** Tables 10.3 and 10.4. • **Electricity:** Tables 7.1 and A6.

Table 1.4b Primary Energy Exports by Source and Total Net Imports
(Quadrillion Btu)

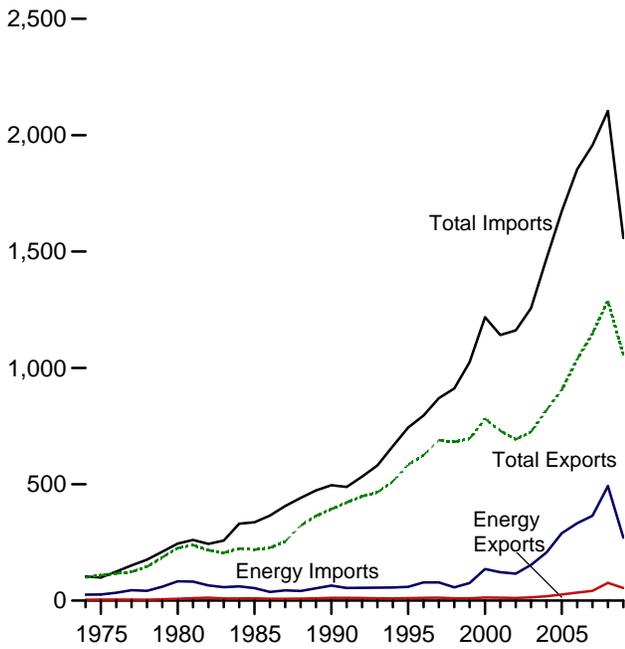
	Exports									Net Imports ^a
	Coal	Coal Coke	Natural Gas	Petroleum			Biofuels ^d	Electricity	Total	
				Crude Oil ^b	Petroleum Products ^c	Total				
1973 Total	1.425	0.035	0.079	0.004	0.482	0.486	NA	0.009	2.033	12.580
1975 Total	1.761	.032	.074	.012	.427	.439	NA	.017	2.323	11.709
1980 Total	2.421	.051	.049	.609	.551	1.160	NA	.014	3.695	12.101
1985 Total	2.438	.028	.056	.432	1.225	1.657	NA	.017	4.196	7.584
1990 Total	2.772	.014	.087	.230	1.594	1.824	NA	.055	4.752	14.065
1995 Total	2.318	.034	.156	.200	1.791	1.991	NA	.012	4.511	17.750
1996 Total	2.368	.040	.155	.233	1.825	2.059	NA	.011	4.633	19.069
1997 Total	2.193	.031	.159	.228	1.872	2.100	NA	.031	4.514	20.701
1998 Total	2.092	.028	.161	.233	1.740	1.972	NA	.047	4.299	22.281
1999 Total	1.525	.022	.164	.250	1.705	1.955	NA	.049	3.715	23.537
2000 Total	1.528	.028	.245	.106	2.048	2.154	NA	.051	4.006	24.967
2001 Total	1.265	.033	.377	.043	1.996	2.038	(s)	.056	3.770	26.386
2002 Total	1.032	.020	.520	.019	2.023	2.042	(s)	.054	3.668	25.739
2003 Total	1.117	.018	.686	.026	2.124	2.150	.001	.082	4.054	27.007
2004 Total	1.253	.033	.862	.057	2.150	2.207	.001	.078	4.433	29.110
2005 Total	1.273	.043	.735	.067	2.373	2.441	.001	.068	4.561	30.149
2006 Total	1.264	.040	.730	.052	2.694	2.747	.004	.083	4.868	29.805
2007 Total	1.507	.036	.830	.058	2.914	2.972	.035	.069	5.448	29.238
2008 January .....	.125	.003	.114	.002	.281	.283	.006	.006	.537	2.410
February .....	.107	.004	.104	.003	.298	.301	.007	.005	.528	2.071
March .....	.170	.001	.106	.005	.311	.317	.006	.009	.608	2.151
April .....	.203	.004	.079	.002	.290	.292	.009	.005	.591	2.183
May .....	.213	.004	.074	.003	.310	.313	.007	.010	.622	2.120
June .....	.170	.004	.066	.004	.358	.362	.009	.011	.622	2.144
July .....	.163	.005	.066	.005	.354	.359	.008	.006	.606	2.210
August .....	.134	.008	.071	.007	.351	.358	.009	.005	.584	2.251
September .....	.220	.004	.058	.007	.214	.221	.008	.006	.516	1.927
October .....	.209	.007	.070	.008	.281	.289	.007	.007	.589	2.236
November .....	.189	.004	.096	.005	.286	.291	.006	.007	.593	2.096
December .....	.169	.003	.111	.008	.319	.327	.004	.005	.619	2.137
Total	2.071	.049	1.015	.061	3.653	3.713	.086	.082	7.016	25.936
2009 January .....	.126	.003	.114	.007	.330	.336	.006	.008	.593	2.249
February .....	.098	.001	.104	.005	.282	.286	.006	.005	.501	1.895
March .....	.118	.002	.105	.005	.320	.326	.001	.006	.557	2.112
April .....	.090	.003	.081	.005	.322	.326	.001	.005	.506	1.984
May .....	.091	.002	.078	.009	.347	.356	.002	.005	.534	1.924
June .....	.151	.002	.067	.010	.326	.336	.002	.006	.564	1.889
July .....	.115	.003	.077	.006	.409	.414	.003	.005	.617	1.974
August .....	.130	.003	.079	.006	.368	.375	.002	.005	.594	R 1.864
September .....	.144	.003	.085	.007	.354	.361	.001	.005	.598	1.850
October .....	.163	.004	R .079	.013	.380	.393	.002	.005	R .646	R 1.677
November .....	.143	.002	.097	.008	.337	.345	.004	.004	.596	R 1.716
December .....	.146	.004	.116	.012	.341	.353	.002	.005	.626	R 1.717
Total	1.515	.032	R 1.081	.093	4.115	4.208	.034	.062	R 6.932	R 22.849
2010 January .....	.150	.006	R .093	.006	.327	.333	.002	.004	R .588	1.912
February .....	.138	.001	E .084	.009	.313	.323	.001	.004	.550	1.668
2-Month Total .....	.288	.007	E .177	.015	.641	.656	.002	.008	1.138	3.580
2009 2-Month Total .....	.224	.004	.218	.011	.612	.623	.012	.013	1.094	4.143
2008 2-Month Total .....	.232	.007	.218	.005	.579	.585	.013	.011	1.065	4.481

^a Net imports equal imports minus exports.
^b Crude oil and lease condensate.
^c Petroleum products, unfinished oils, pentanes plus, and gasoline blending components. Does not include biofuels.
^d Biodiesel only.
R=Revised. E=Estimate. NA=Not available. (s)=Less than 0.5 trillion Btu.
Notes: • See "Primary Energy" in Glossary. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.
Web Page: See <http://www.eia.doe.gov/emeu/mer/overview.html> for all

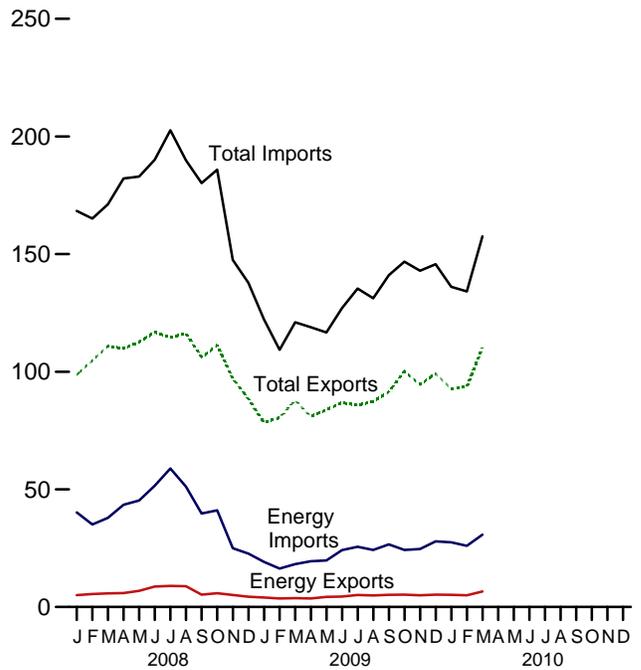
available data beginning in 1973.
Sources: • **Coal:** Tables 6.1 and A5. • **Coal Coke: 1973-1975**—U.S. Department of the Interior, Bureau of Mines, *Minerals Yearbook*, "Coke and Coal Chemicals" chapter. **1976-1980**—U.S. Energy Information Administration (EIA), *Energy Data Report*, "Coke and Coal Chemicals," annual reports. **1981 forward**—EIA, *Quarterly Coal Report*, quarterly reports. • **Natural Gas:** Tables 4.1 and A4. • **Crude Oil and Petroleum Products:** Tables 3.3b, 10.4, and A2. • **Biofuels:** Tables 10.3 and 10.4. • **Electricity:** Tables 7.1 and A6.

Figure 1.5 Merchandise Trade Value
(Billion Dollars^a)

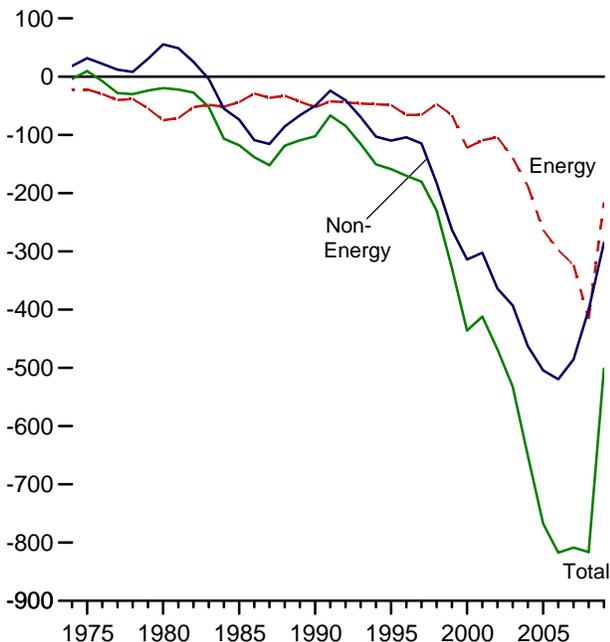
Imports and Exports, 1974-2009



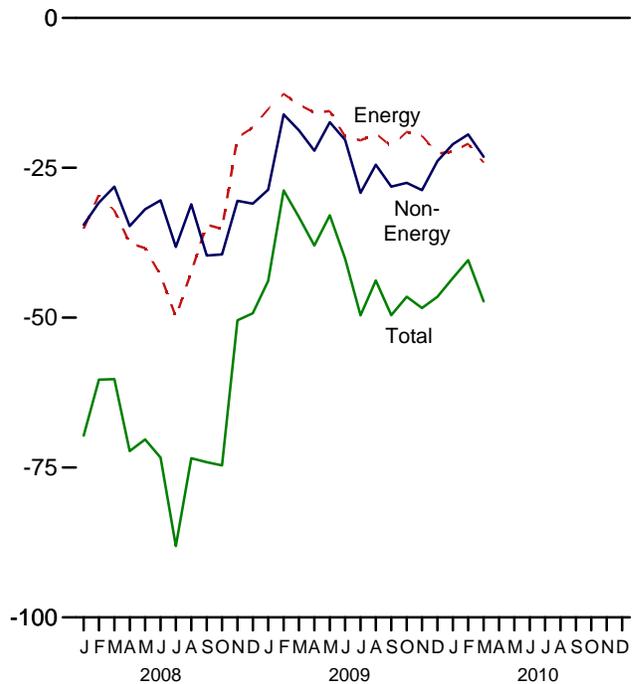
Imports and Exports, Monthly



Trade Balance, 1974-2009



Trade Balance, Monthly



^aSee "Nominal Dollars" in Glossary.
Web Page: <http://www.eia.doe.gov/emeu/mer/overview.html>.
Source: Table 1.5.

Table 1.5 Merchandise Trade Value
(Million Nominal Dollars^a)

	Petroleum ^b			Energy ^c			Non-Energy Balance	Total Merchandise		
	Exports	Imports	Balance	Exports	Imports	Balance		Exports	Imports	Balance
1974 Total	792	24,668	-23,876	3,444	25,454	-22,010	18,126	99,437	103,321	-3,884
1975 Total	907	25,197	-24,289	4,470	26,476	-22,006	31,557	108,856	99,305	9,551
1980 Total	2,833	78,637	-75,803	7,982	82,924	-74,942	55,246	225,566	245,262	-19,696
1985 Total	4,707	50,475	-45,768	9,971	53,917	-43,946	-73,765	218,815	336,526	-117,712
1990 Total	6,901	61,583	-54,682	12,233	64,661	-52,428	-50,068	393,592	496,088	-102,496
1995 Total	6,321	54,368	-48,047	10,358	59,109	-48,751	-110,050	584,742	743,543	-158,801
1996 Total	7,984	72,022	-64,038	12,181	78,086	-65,905	-104,309	625,075	795,289	-170,214
1997 Total	8,592	71,152	-62,560	12,682	78,277	-65,595	-114,927	689,182	869,704	-180,522
1998 Total	6,574	50,264	-43,690	10,251	57,323	-47,072	-182,686	682,138	911,896	-229,758
1999 Total	7,118	67,173	-60,055	9,880	75,803	-65,923	-262,898	695,797	1,024,618	-328,821
2000 Total	10,192	119,251	-109,059	13,179	135,367	-122,188	-313,916	781,918	1,218,022	-436,104
2001 Total	8,868	102,747	-93,879	12,494	121,923	-109,429	-302,470	729,100	1,140,999	-411,899
2002 Total	8,569	102,663	-94,094	11,541	115,748	-104,207	-364,056	693,103	1,161,366	-468,263
2003 Total	10,209	132,433	-122,224	13,768	153,298	-139,530	-392,820	724,771	1,257,121	-532,350
2004 Total	13,130	179,266	-166,136	18,642	206,660	-188,018	-462,912	818,775	1,469,704	-650,930
2005 Total	19,155	250,068	-230,913	26,488	289,723	-263,235	-504,242	905,978	1,673,455	-767,477
2006 Total	28,171	299,714	-271,543	34,711	332,500	-297,789	-519,515	1,036,635	1,853,938	-817,304
2007 Total	33,293	327,620	-294,327	41,725	364,987	-323,262	-485,501	1,148,199	1,956,962	-808,763
2008 January	4,061	36,617	-32,556	5,049	40,206	-35,157	-34,516	98,677	168,350	-69,673
February	4,683	31,609	-26,926	5,508	35,033	-29,525	-30,805	104,740	165,070	-60,330
March	4,477	33,769	-29,292	5,755	37,875	-32,120	-28,142	110,932	171,194	-60,262
April	4,473	39,481	-35,008	5,899	43,440	-37,541	-34,717	109,857	182,115	-72,258
May	5,420	41,344	-35,924	6,861	45,266	-38,405	-31,924	112,627	182,956	-70,329
June	7,365	47,392	-40,027	8,694	51,594	-42,900	-30,430	116,787	190,117	-73,330
July	7,760	53,966	-46,206	8,948	58,841	-49,893	-38,199	114,522	202,614	-88,092
August	7,650	47,473	-39,823	8,791	51,150	-42,359	-31,098	116,418	189,875	-73,457
September	3,916	36,768	-32,852	5,217	39,701	-34,484	-39,633	106,072	180,189	-74,117
October	4,597	38,270	-33,673	5,876	41,064	-35,188	-39,456	111,239	185,882	-74,644
November	3,858	22,661	-18,803	5,084	25,019	-19,935	-30,495	97,085	147,515	-50,430
December	3,439	20,494	-17,055	4,394	22,697	-18,303	-30,974	88,486	137,763	-49,277
Total	61,695	449,847	-388,152	76,075	491,885	-415,810	-400,389	1,287,442	2,103,641	-816,199
2009 January	3,036	16,863	-13,827	3,994	19,192	-15,198	-28,649	78,379	122,226	-43,847
February	2,599	14,042	-11,443	3,636	16,311	-12,675	-16,102	80,503	109,279	-28,777
March	2,860	16,617	-13,757	3,730	18,191	-14,461	-18,747	87,796	121,004	-33,208
April	2,937	17,937	-15,000	3,623	19,431	-15,808	-22,156	80,969	118,933	-37,964
May	3,658	18,201	-14,543	4,262	19,795	-15,533	-17,394	83,786	116,713	-32,927
June	3,582	23,018	-19,436	4,411	24,201	-19,790	-20,348	86,860	126,998	-40,138
July	4,476	24,375	-19,899	5,138	25,563	-20,425	-29,185	85,737	135,347	-49,610
August	4,202	22,952	-18,750	4,914	24,226	-19,312	-24,483	87,429	131,224	-43,795
September	4,331	25,289	-20,958	5,162	26,598	-21,436	-28,144	91,418	140,998	-49,580
October	4,372	22,857	-18,485	5,229	24,236	-19,007	-27,501	100,285	146,793	-46,508
November	4,133	23,351	-19,218	4,991	24,644	-19,653	-28,741	94,541	142,935	-48,394
December	4,363	26,118	-21,755	5,270	27,906	-22,636	-23,880	99,160	145,676	-46,516
Total	44,546	251,620	-207,074	54,358	270,295	-215,937	-285,325	1,056,863	1,558,125	-501,262
2010 January	4,093	25,255	-21,162	5,185	27,504	-22,319	-21,052	92,716	136,087	-43,371
February	3,953	23,685	-19,732	4,995	25,984	-20,989	^R -19,428	^R 93,691	^R 134,108	^R -40,417
March	5,357	28,630	-23,273	6,567	30,705	-24,138	-23,146	110,244	157,528	-47,284
3-Month Total	13,403	77,570	-64,167	16,747	84,193	-67,446	-63,626	296,650	427,723	-131,073
2009 3-Month Total	8,495	47,522	-39,027	11,360	53,694	-42,334	-63,498	246,678	352,509	-105,831
2008 3-Month Total	13,221	101,995	-88,774	16,312	113,114	-96,802	-93,463	314,349	504,614	-190,265

^a See "Nominal Dollars" in Glossary.

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

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

^R=Revised.

Notes: • Monthly data are not adjusted for seasonal variations. • See Note, "Merchandise Trade Value," at end of section. • Totals may not equal sum of

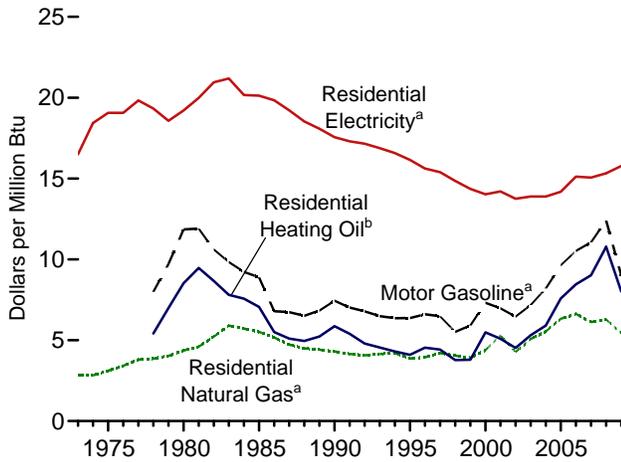
components due to independent rounding. • The U.S. import statistics reflect both government and nongovernment imports of merchandise from foreign countries into the U.S. customs territory, which comprises the 50 States, the District of Columbia, Puerto Rico, and the Virgin Islands.

Web Page: See <http://www.eia.doe.gov/emeu/mer/overview.html> for all available data beginning in 1974.

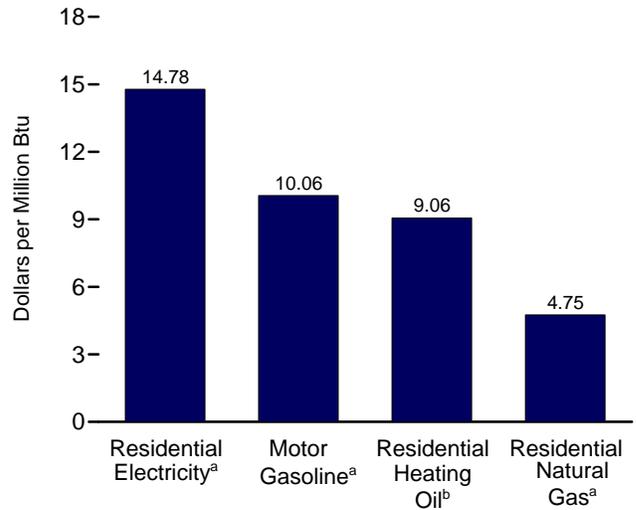
Sources: See end of section.

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

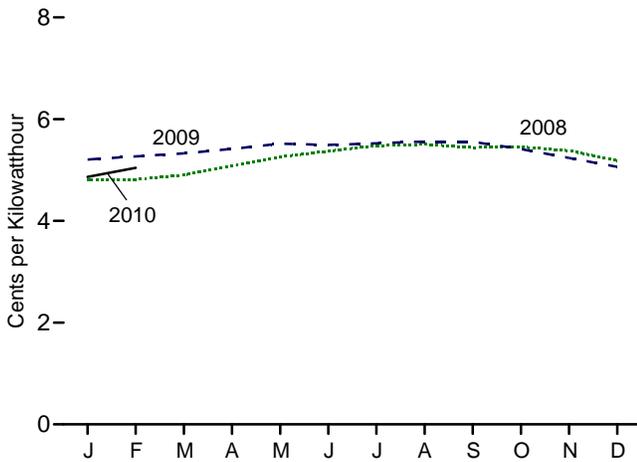
Costs, 1973-2009



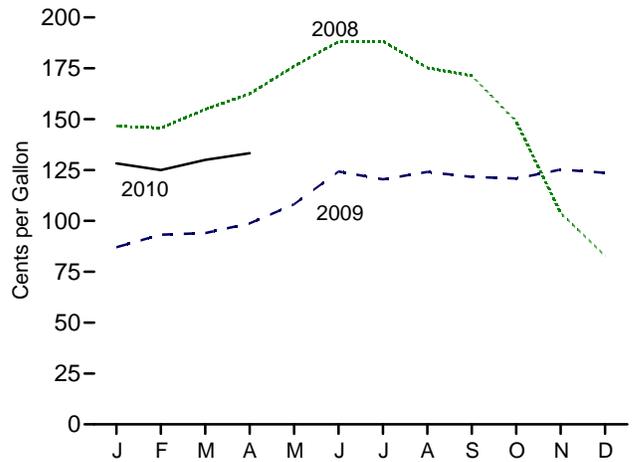
Costs, February 2010



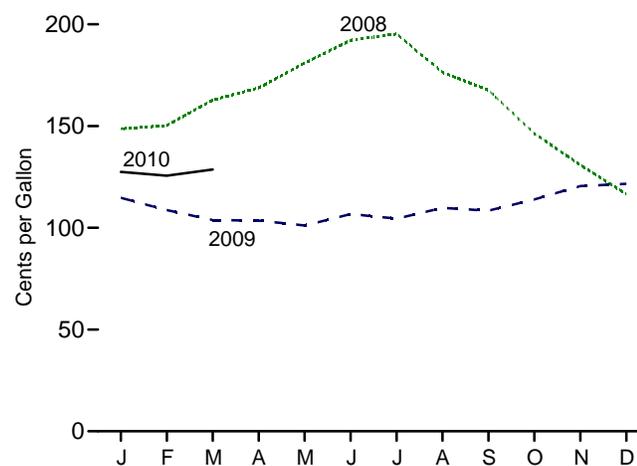
Residential Electricity,^a Monthly



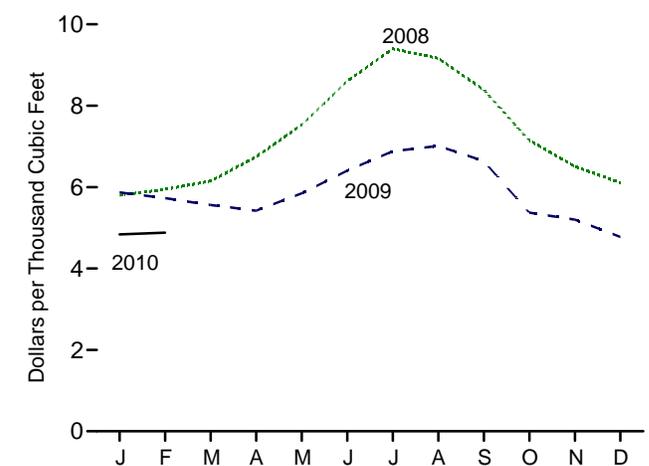
Motor Gasoline,^a Monthly



Residential Heating Oil,^b Monthly



Residential Natural Gas,^a Monthly



^aIncludes taxes.

^bExcludes taxes.

Note: See "Real Dollars" in Glossary.

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

Source: Table 1.6.

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

	Consumer Price Index, All Urban Consumers ^a	Motor Gasoline ^b		Residential Heating Oil ^c		Residential Natural Gas ^b		Residential Electricity ^b	
	Index 1982-1984=100	Cents per Gallon	Dollars per Million Btu	Cents per Gallon	Dollars per Million Btu	Cents per Thousand Cubic Feet	Dollars per Million Btu	Cents per Kilowatt-hour	Dollars per Million Btu
1973 Average	44.4	NA	NA	NA	NA	290.5	2.85	5.6	16.50
1975 Average	53.8	NA	NA	NA	NA	317.8	3.12	6.5	19.07
1980 Average	82.4	148.2	11.85	118.2	8.52	446.6	4.36	6.6	19.21
1985 Average	107.6	111.2	8.89	97.9	7.06	568.8	5.52	6.87	20.13
1990 Average	130.7	93.1	7.44	81.3	5.86	443.8	4.31	5.99	17.56
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	404.3	3.94	5.33	15.62
1997 Average	160.5	80.4	6.48	61.3	4.42	432.4	4.21	5.25	15.39
1998 Average	163.0	68.4	5.51	52.3	3.77	418.4	4.05	5.07	14.85
1999 Average	166.6	73.3	5.91	52.6	3.79	401.6	3.91	4.90	14.36
2000 Average	172.2	90.8	7.32	76.1	5.49	450.6	4.39	4.79	14.02
2001 Average	177.1	86.4	6.97	70.6	5.09	543.8	5.28	4.84	14.20
2002 Average	179.9	80.1	6.46	62.8	4.52	438.6	4.26	4.69	13.75
2003 Average	184.0	89.0	7.18	73.6	5.31	523.4	5.09	4.74	13.89
2004 Average	188.9	101.8	8.20	81.9	5.91	569.1	5.55	4.74	13.89
2005 Average	195.3	119.7	9.64	105.1	7.58	650.3	6.33	4.84	14.18
2006 Average	201.6	130.7	10.52	117.3	8.46	681.1	6.63	5.16	15.12
2007 Average	207.342	137.4	11.06	125.0	9.01	630.8	6.12	5.14	15.05
2008 January	211.080	146.7	11.81	148.7	10.72	579.9	5.65	4.81	14.09
February	211.693	145.6	11.72	150.3	10.83	594.3	5.79	4.81	14.11
March	213.528	154.9	12.47	162.7	11.73	614.9	5.99	4.90	14.37
April	214.823	162.5	13.08	168.8	12.17	674.5	6.57	5.08	14.90
May	216.632	176.0	14.17	181.0	13.05	752.9	7.33	5.26	15.41
June	218.815	188.1	15.14	192.1	13.85	860.1	8.37	5.37	15.74
July	219.964	188.3	15.16	195.3	14.08	940.2	9.15	5.48	16.06
August	219.086	175.2	14.10	176.5	12.72	916.5	8.92	5.50	16.13
September	218.783	171.4	13.79	167.6	12.09	839.2	8.17	5.44	15.94
October	216.573	148.9	11.99	146.3	10.55	715.2	6.96	5.45	15.98
November	212.425	103.9	8.37	130.8	9.43	650.6	6.33	5.38	15.77
December	210.228	82.9	6.67	116.5	8.40	610.8	5.95	5.18	15.20
Average	215.303	154.1	12.40	149.5	10.78	645.1	6.28	5.23	15.33
2009 January	211.143	87.1	7.01	114.7	8.27	586.8	5.71	5.21	15.25
February	212.193	93.3	7.51	108.7	7.84	573.1	5.58	5.27	15.44
March	212.709	94.0	7.57	103.8	7.48	556.2	5.42	5.33	15.61
April	213.240	98.8	7.95	103.6	7.47	542.1	5.28	5.42	15.87
May	213.856	108.2	8.71	101.1	7.29	584.5	5.69	5.52	16.17
June	215.693	124.3	10.00	106.7	7.70	640.3	6.23	5.49	16.10
July	215.351	120.5	9.70	104.5	7.53	688.2	6.70	5.53	16.20
August	215.834	124.0	9.98	109.8	7.92	^R 701.0	^R 6.83	5.56	16.29
September	215.969	121.6	9.79	108.4	7.82	664.0	6.47	5.56	16.28
October	216.177	120.9	9.73	114.0	8.22	537.5	5.23	5.41	15.86
November	216.330	125.2	10.08	120.5	8.69	520.0	5.06	5.24	15.35
December	215.949	123.7	9.96	121.6	8.77	477.4	4.65	5.06	14.83
Average	214.537	111.9	9.01	111.2	8.02	557.9	5.43	5.38	15.78
2010 January	216.687	128.2	10.32	^R 127.5	9.19	^R 483.6	4.71	4.86	14.26
February	216.741	125.0	10.06	^R 125.6	^R 9.06	^R 488.1	^R 4.75	^R 5.04	^R 14.78
March	217.631	130.0	10.46	^{RE} 128.7	^{RE} 9.28	NA	NA	NA	NA
April	218.009	133.3	10.73	NA	NA	NA	NA	NA	NA

^a Data are U.S. city averages for all items, and are not seasonally adjusted.

^b Includes taxes.

^c Excludes taxes.

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

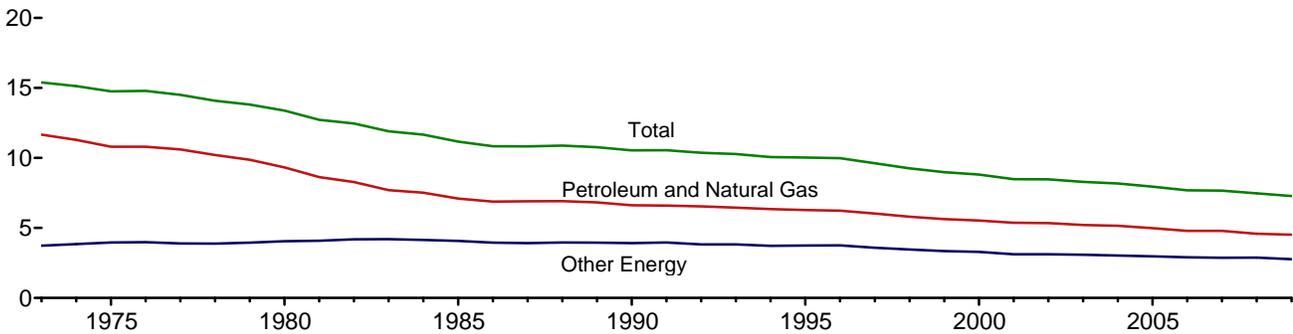
Notes: • See "Real Dollars" in Glossary. • Fuel costs are calculated by using the Urban Consumer Price Index (CPI) developed by the Bureau of Labor Statistics. • Annual averages may not equal average of months due to independent rounding. • Geographic coverage is the 50 States and the

District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/overview.html> for all available data beginning in 1973.

Sources: • **Fuel Prices:** Tables 9.4 (All Types), 9.8c, 9.9, and 9.11, adjusted by the CPI. • **Consumer Price Index, All Urban Consumers:** U.S. Department of Labor, Bureau of Labor Statistics, series ID CUUR0000SA0. • **Conversion Factors:** Tables A1, A3, A4, and A6.

Figure 1.7 Primary Energy Consumption per Real Dollar of Gross Domestic Product, 1973-2009
(Thousand Btu per Chained (2005) Dollar)



Note: See "Real Dollars" in Glossary.
Web Page: <http://www.eia.doe.gov/emeu/mer/overview.html>.
Source: Table 1.7.

Table 1.7 Primary Energy Consumption per Real Dollar of Gross Domestic Product

	Energy Consumption			Gross Domestic Product (GDP)	Energy Consumption per Real Dollar of GDP		
	Petroleum and Natural Gas	Other Energy ^a	Total		Petroleum and Natural Gas	Other Energy ^a	Total
	Quadrillion Btu				Billion Chained (2005) Dollars	Thousand Btu per Chained (2005) Dollar	
1973 Year	57.352	18.356	75.708	4,917.0	11.66	3.73	15.40
1974 Year	55.187	18.804	73.991	4,889.9	11.29	3.85	15.13
1975 Year	52.678	19.321	71.999	4,879.5	10.80	3.96	14.76
1976 Year	55.520	20.492	76.012	5,141.3	10.80	3.99	14.78
1977 Year	57.053	20.947	78.000	5,377.7	10.61	3.90	14.50
1978 Year	57.966	22.021	79.986	5,677.6	10.21	3.88	14.09
1979 Year	57.789	23.114	80.903	5,855.0	9.87	3.95	13.82
1980 Year	54.438	23.684	78.122	5,839.0	9.32	4.06	13.38
1981 Year	51.678	24.490	76.168	5,987.2	8.63	4.09	12.72
1982 Year	48.588	24.565	73.153	5,870.9	8.28	4.18	12.46
1983 Year	47.275	25.763	73.038	6,136.2	7.70	4.20	11.90
1984 Year	49.445	27.269	76.714	6,577.1	7.52	4.15	11.66
1985 Year	48.626	27.865	76.491	6,849.3	7.10	4.07	11.17
1986 Year	48.787	27.969	76.756	7,086.5	6.88	3.95	10.83
1987 Year	50.505	28.668	79.173	7,313.3	6.91	3.92	10.83
1988 Year	52.670	30.149	82.819	7,613.9	6.92	3.96	10.88
1989 Year	53.813	31.131	84.944	7,885.9	6.82	3.95	10.77
1990 Year	53.156	31.496	84.651	8,033.9	6.62	3.92	10.54
1991 Year	52.878	31.728	84.606	8,015.1	6.60	3.96	10.56
1992 Year	54.240	31.715	85.955	8,287.1	6.55	3.83	10.37
1993 Year	54.973	32.629	87.601	8,523.4	6.45	3.83	10.28
1994 Year	56.289	32.968	89.257	8,870.7	6.35	3.72	10.06
1995 Year	57.107	34.062	91.169	9,093.7	6.28	3.75	10.03
1996 Year	58.757	35.415	94.172	9,433.9	6.23	3.75	9.98
1997 Year	59.382	35.380	94.761	9,854.3	6.03	3.59	9.62
1998 Year	59.646	35.532	95.178	10,283.5	5.80	3.46	9.26
1999 Year	60.746	36.066	96.812	10,779.8	5.64	3.35	8.98
2000 Year	62.088	36.882	98.970	11,226.0	5.53	3.29	8.82
2001 Year	60.958	35.358	96.316	11,347.2	5.37	3.12	8.49
2002 Year	61.784	36.070	97.853	11,553.0	5.35	3.12	8.47
2003 Year	61.638	36.493	98.131	11,840.7	5.21	3.08	8.29
2004 Year	63.201	37.112	100.313	12,263.8	5.15	3.03	8.18
2005 Year	62.952	37.492	100.445	12,638.4	4.98	2.97	7.95
2006 Year	62.179	^R 37.611	^R 99.790	12,976.2	4.79	2.90	7.69
2007 Year	63.471	^R 38.056	^R 101.527	13,254.1	4.79	^R 2.87	7.66
2008 Year	61.070	^R 38.332	^R 99.402	13,312.2	4.59	2.88	7.47
2009 Year	^R 58.631	^R 35.948	^R 94.578	12,987.4	^R 4.51	2.77	^R 7.28

^a Coal, coal coke net imports, nuclear electric power, renewable energy, and electricity net imports.
^R=Revised.

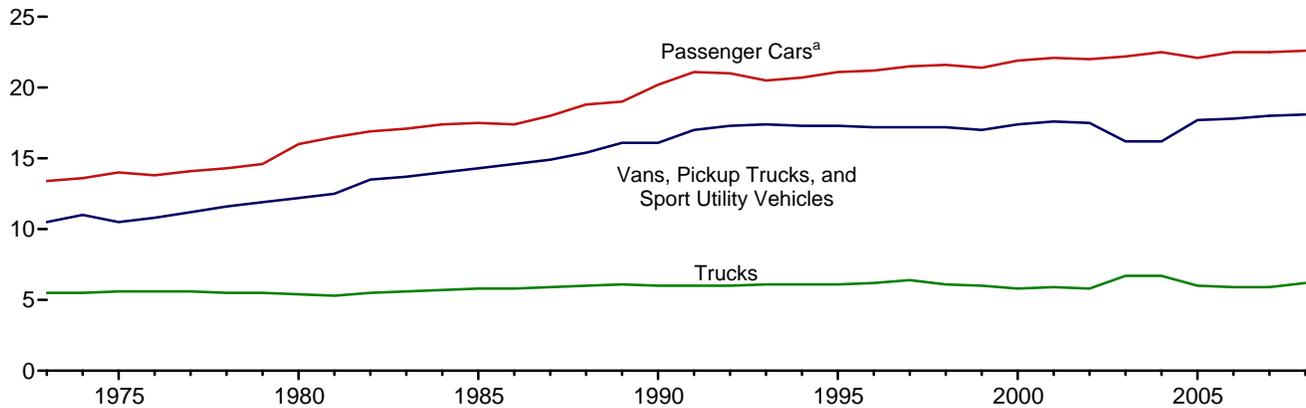
Notes: • See "Primary Energy Consumption" and "Real Dollars" in Glossary.
• Totals may not equal sum of components due to independent rounding.
• Geographic coverage is the 50 States and the District of

Columbia.

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

Sources: • **Energy Consumption:** Table 1.3. • **Gross Domestic Product:** U.S. Department of Commerce, Bureau of Economic Analysis, National Income and Product Accounts (April 30, 2010), Table 1.1.6.

Figure 1.8 Motor Vehicle Fuel Rates, 1973-2008
(Miles per Gallon)



^aMotorcycles are included through 1989.

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

Source: Table 1.8.

Table 1.8 Motor Vehicle Mileage, Fuel Consumption, and Fuel Rates

	Passenger Cars ^a			Vans, Pickup Trucks, and Sport Utility Vehicles ^b			Trucks ^c			All Motor Vehicles ^d		
	Mileage (miles per vehicle)	Fuel Consumption (gallons per vehicle)	Fuel Rate (miles per gallon)	Mileage (miles per vehicle)	Fuel Consumption (gallons per vehicle)	Fuel Rate (miles per gallon)	Mileage (miles per vehicle)	Fuel Consumption (gallons per vehicle)	Fuel Rate (miles per gallon)	Mileage (miles per vehicle)	Fuel Consumption (gallons per vehicle)	Fuel Rate (miles per gallon)
1973	9,884	737	13.4	9,779	931	10.5	15,370	2,775	5.5	10,099	850	11.9
1974	9,221	677	13.6	9,452	862	11.0	14,995	2,708	5.5	9,493	788	12.0
1975	9,309	665	14.0	9,829	934	10.5	15,167	2,722	5.6	9,627	790	12.2
1976	9,418	681	13.8	10,127	934	10.8	15,438	2,764	5.6	9,774	806	12.1
1977	9,517	676	14.1	10,607	947	11.2	16,700	3,002	5.6	9,978	814	12.3
1978	9,500	665	14.3	10,968	948	11.6	18,045	3,263	5.5	10,077	816	12.4
1979	9,062	620	14.6	10,802	905	11.9	18,502	3,380	5.5	9,722	776	12.5
1980	8,813	551	16.0	10,437	854	12.2	18,736	3,447	5.4	9,458	712	13.3
1981	8,873	538	16.5	10,244	819	12.5	19,016	3,565	5.3	9,477	697	13.6
1982	9,050	535	16.9	10,276	762	13.5	19,931	3,647	5.5	9,644	686	14.1
1983	9,118	534	17.1	10,497	767	13.7	21,083	3,769	5.6	9,760	686	14.2
1984	9,248	530	17.4	11,151	797	14.0	22,550	3,967	5.7	10,017	691	14.5
1985	9,419	538	17.5	10,506	735	14.3	20,597	3,570	5.8	10,020	685	14.6
1986	9,464	543	17.4	10,764	738	14.6	22,143	3,821	5.8	10,143	692	14.7
1987	9,720	539	18.0	11,114	744	14.9	23,349	3,937	5.9	10,453	694	15.1
1988	9,972	531	18.8	11,465	745	15.4	22,485	3,736	6.0	10,721	688	15.6
1989	^a 10,157	^a 533	^a 19.0	11,676	724	16.1	22,926	3,776	6.1	10,932	688	15.9
1990	10,504	520	20.2	11,902	738	16.1	23,603	3,953	6.0	11,107	677	16.4
1991	10,571	501	21.1	12,245	721	17.0	24,229	4,047	6.0	11,294	669	16.9
1992	10,857	517	21.0	12,381	717	17.3	25,373	4,210	6.0	11,558	683	16.9
1993	10,804	527	20.5	12,430	714	17.4	26,262	4,309	6.1	11,595	693	16.7
1994	10,992	531	20.7	12,156	701	17.3	25,838	4,202	6.1	11,683	698	16.7
1995	11,203	530	21.1	12,018	694	17.3	26,514	4,315	6.1	11,793	700	16.8
1996	11,330	534	21.2	11,811	685	17.2	26,092	4,221	6.2	11,813	700	16.9
1997	11,581	539	21.5	12,115	703	17.2	27,032	4,218	6.4	12,107	711	17.0
1998	11,754	544	21.6	12,173	707	17.2	25,397	4,135	6.1	12,211	721	16.9
1999	11,848	553	21.4	11,957	701	17.0	26,014	4,352	6.0	12,206	732	16.7
2000	11,976	547	21.9	11,672	669	17.4	25,617	4,391	5.8	12,164	720	16.9
2001	11,831	534	22.1	11,204	636	17.6	26,602	4,477	5.9	11,887	695	17.1
2002	12,202	555	22.0	11,364	650	17.5	27,071	4,642	5.8	12,171	719	16.9
2003	12,325	556	22.2	11,287	697	16.2	28,093	4,215	6.7	12,208	718	17.0
2004	12,460	553	22.5	11,184	690	16.2	27,023	4,057	6.7	12,200	714	17.1
2005	12,510	567	22.1	10,920	617	17.7	26,235	4,385	6.0	12,082	706	17.1
2006	12,485	554	22.5	10,920	612	17.8	25,231	4,304	5.9	12,017	698	17.2
2007	12,304	547	22.5	10,962	609	18.0	25,152	4,275	5.9	11,920	693	17.2
2008 ^P	11,788	522	22.6	10,951	605	18.1	25,254	4,075	6.2	11,619	667	17.4

^a Through 1989, includes motorcycles.

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

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

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

R=Revised. P=Preliminary.

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

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

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

Table 1.9 Heating Degree-Days by Census Division

Census Divisions	April					Cumulative July through April				
	Normal ^a	2009	2010	Percent Change		Normal ^a	2009	2010	Percent Change	
				Normal to 2010	2009 to 2010				Normal to 2010	2009 to 2010
New England Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont	583	514	429	-26	-17	6,264	6,375	5,826	-7	-9
Middle Atlantic New Jersey, New York, Pennsylvania	496	450	334	-33	-26	5,655	5,653	5,222	-8	-8
East North Central Illinois, Indiana, Michigan, Ohio, Wisconsin	510	501	331	-35	-34	6,209	6,361	5,951	-4	-6
West North Central Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota	472	522	320	-32	-39	6,493	6,624	6,478	(s)	-2
South Atlantic Delaware, Florida, Georgia, Maryland and the District of Columbia, North Carolina, South Carolina, Virginia, West Virginia	179	182	124	-31	-32	2,785	2,840	2,952	6	4
East South Central Alabama, Kentucky, Mississippi, Tennessee	216	230	146	-32	-37	3,521	3,486	3,819	8	10
West South Central Arkansas, Louisiana, Oklahoma, Texas	94	122	86	NM	NM	2,269	2,075	2,636	16	27
Mountain Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming	426	437	430	1	-2	4,894	4,511	4,921	1	9
Pacific^b California, Oregon, Washington	298	326	372	25	14	2,970	2,829	2,925	-2	3
U.S. Average^b	345	346	271	-21	-22	4,326	4,304	4,285	-1	(s)

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

^b Excludes Alaska and Hawaii.

(s)=Less than 0.5 percent and greater than -0.5 percent. NM=Not meaningful (because "Normal" is less than 100 or ratio is incalculable).

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

Web Pages: • See <http://www.eia.doe.gov/emeu/mer/overview.html> for

current data. • See <http://www.eia.doe.gov/emeu/aer/overview.html> for historical data.

Sources: There are several degree-day databases maintained by the National Oceanic and Atmospheric Administration. The information published here is developed by the National Weather Service Climate Prediction Center, Camp Springs, MD. The data are available weekly with monthly summaries and are based on mean daily temperatures recorded at about 200 major weather stations around the country. The temperature information recorded at those weather stations is used to calculate statewide degree-day averages based on population. The State figures are then aggregated into Census Divisions and into the national average. The population weights currently used represent resident State population data estimated for the 2000 Census by the U.S. Department of Commerce, Bureau of the Census. The data provided here are available sooner than the Historical Climatology Series 5-1 (heating degree-days) developed by the National Climatic Data Center, Asheville, NC, which compiles data from some 8,000 weather stations.

Table 1.10 Cooling Degree-Days by Census Division

Census Divisions	April					Cumulative January through April				
	Normal ^a	2009	2010	Percent Change		Normal ^a	2009	2010	Percent Change	
				Normal to 2010	2009 to 2010				Normal to 2010	2009 to 2010
New England Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont	0	7	0	NM	NM	0	7	0	NM	NM
Middle Atlantic New Jersey, New York, Pennsylvania	0	18	7	NM	NM	0	18	7	NM	NM
East North Central Illinois, Indiana, Michigan, Ohio, Wisconsin	1	9	8	NM	NM	2	9	8	NM	NM
West North Central Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota	6	7	6	NM	NM	9	7	6	NM	NM
South Atlantic Delaware, Florida, Georgia, Maryland and the District of Columbia, North Carolina, South Carolina, Virginia, West Virginia	70	88	84	NM	NM	183	171	126	-31	-26
East South Central Alabama, Kentucky, Mississippi, Tennessee	26	41	28	NM	NM	56	47	28	NM	NM
West South Central Arkansas, Louisiana, Oklahoma, Texas	94	116	109	NM	NM	175	219	127	-27	-42
Mountain Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming	35	27	19	NM	NM	49	38	21	NM	NM
Pacific^b California, Oregon, Washington	14	18	0	NM	NM	21	18	0	NM	NM
U.S. Average^b	30	41	33	NM	NM	65	69	43	NM	NM

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

^b Excludes Alaska and Hawaii.

NM=Not meaningful (because "Normal" is less than 100 or ratio is incalculable).

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

Web Pages: • See <http://www.eia.doe.gov/emeu/mer/overview.html> for

current data. • See <http://www.eia.doe.gov/emeu/aer/overview.html> for historical data.

Sources: There are several degree-day databases maintained by the National Oceanic and Atmospheric Administration. The information published here is developed by the National Weather Service Climate Prediction Center, Camp Springs, MD. The data are available weekly with monthly summaries and are based on mean daily temperatures recorded at about 200 major weather stations around the country. The temperature information recorded at those weather stations is used to calculate statewide degree-day averages based on population. The State figures are then aggregated into Census Divisions and into the national average. The population weights currently used represent resident State population data estimated for the 2000 Census by the U.S. Department of Commerce, Bureau of the Census. The data provided here are available sooner than the Historical Climatology Series 5-2 (cooling degree-days) developed by the National Climatic Data Center, Asheville, NC, which compiles data from some 8,000 weather stations.

Energy Overview

Note. Merchandise Trade Value. Imports data presented are based on the customs values. Those values do not include insurance and freight and are consequently lower than the cost, insurance, and freight (CIF) values, which are also reported by the Bureau of the Census. All exports data, and imports data prior to 1981, are on a free alongside ship (f.a.s.) basis.

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

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

Table 1.5 Sources

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

Petroleum Exports

1974-1987: “U.S. Exports,” FT410, December issues.
1988 and 1989: “Report on U.S. Merchandise Trade,” Final Revisions.
1990-1992: “U.S. Merchandise Trade,” Final Report.
1993-2007: “U.S. International Trade in Goods and Services,” Annual Revision.

2008 forward: “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.
1994-2007: “U.S. International Trade in Goods and Services,” Annual Revision.
2008 forward: “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.
1993-2007: “U.S. International Trade in Goods and Services,” Annual Revision.
2008 forward: “U.S. International Trade in Goods and Services,” FT-900, monthly.

Petroleum, Energy, and Non-Energy Balances

Calculated by the U.S. Energy Information Administration.

Total Merchandise

1974-1987: U.S. merchandise trade press releases and database printouts for adjustments.
1988: “Report on U.S. Merchandise Trade, 1988 Final Revisions,” August 18, 1989.
1989: “Report on U.S. Merchandise Trade, 1989 Revisions,” July 10, 1990.
1990: “U.S. Merchandise Trade, 1990 Final Report,” May 10, 1991, and “U.S. Merchandise Trade, December 1992,” February 18, 1993, page 3.
1991: “U.S. Merchandise Trade, 1992 Final Report,” May 12, 1993.
1992-2007: “U.S. International Trade in Goods and Services,” Annual Revision
2008 forward: “U.S. International Trade in Goods and Services,” FT-900, monthly.

2

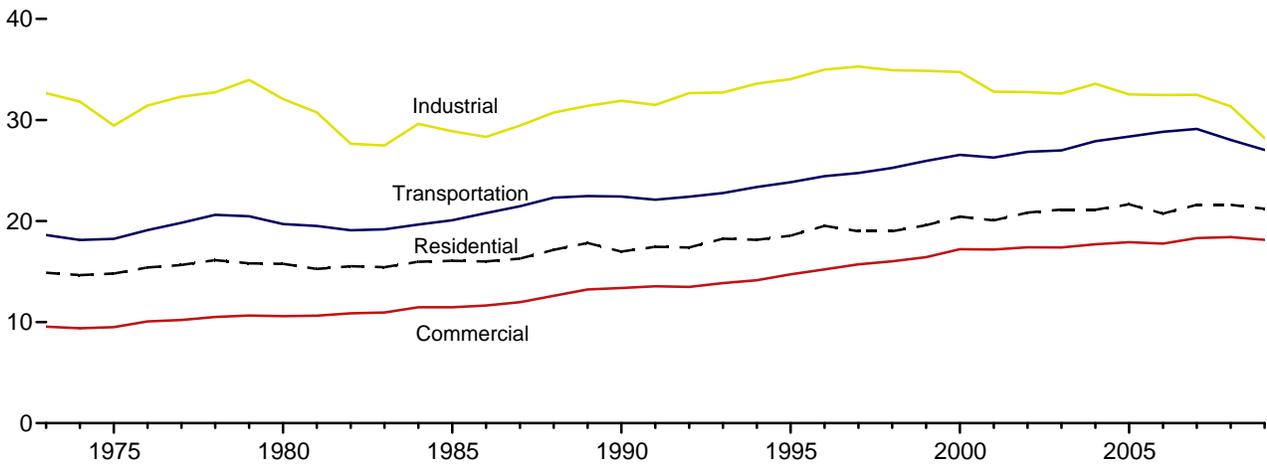
Energy Consumption by Sector



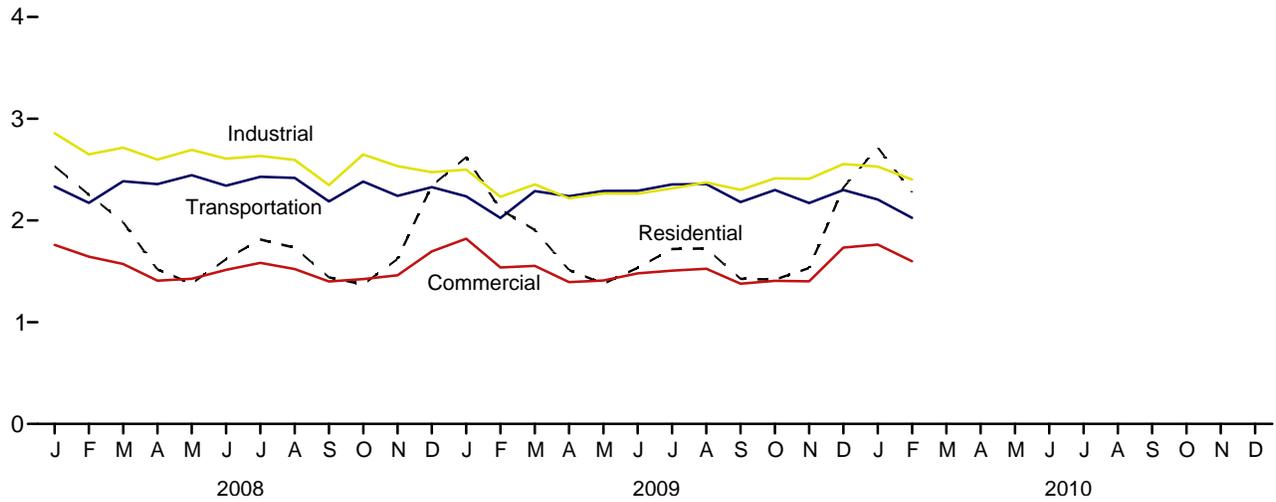
Office buildings, industries, residences, and transport systems, Baltimore, Maryland; east view from the inner harbor.
Source: U.S. Department of Energy.

Figure 2.1 Energy Consumption by Sector
(Quadrillion Btu)

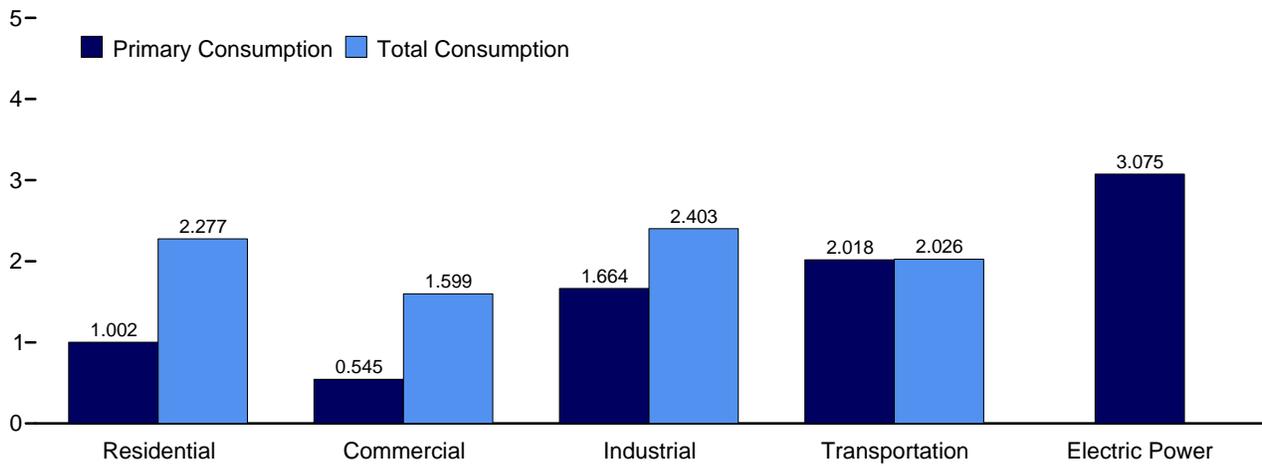
Total Consumption by End-Use Sector, 1973-2009



Total Consumption by End-Use Sector, Monthly



By Sector, February 2010



Web Page: <http://www.eia.doe.gov/emeu/mer/consump.html>.
Source: Table 2.1.

Table 2.1 Energy Consumption by Sector
(Trillion Btu)

	End-Use Sectors								Electric Power Sector ^{c,d}	Balancing Item ^g	Total ^h
	Residential		Commercial ^a		Industrial ^b		Transportation				
	Primary ^e	Total ^f	Primary ^e	Total ^f	Primary ^e	Total ^f	Primary ^e	Total ^f	Primary ^e		
1973 Total	8,212	14,891	4,419	9,545	24,741	32,653	18,576	18,612	19,753	7	75,708
1975 Total	7,973	14,810	4,055	9,498	21,454	29,447	18,209	18,244	20,307	1	71,999
1980 Total	7,426	15,760	4,101	10,590	22,610	32,077	19,658	19,696	24,327	-1	78,122
1985 Total	7,129	16,057	3,726	11,475	19,467	28,876	20,040	20,086	26,132	-4	76,491
1990 Total	6,538	16,982	3,890	13,365	21,207	31,894	22,365	22,419	30,660	-9	84,651
1995 Total	6,915	18,547	4,094	14,729	22,746	34,045	23,790	23,846	33,621	3	91,169
1996 Total	7,440	19,531	4,266	15,213	23,442	34,988	24,382	24,437	34,638	4	94,172
1997 Total	7,007	18,994	4,289	15,726	23,720	35,287	24,694	24,749	35,045	6	94,761
1998 Total	6,390	18,986	3,998	16,014	23,209	34,926	25,200	25,255	36,385	-3	95,178
1999 Total	6,746	19,583	4,045	16,422	22,989	34,854	25,891	25,948	37,136	6	96,812
2000 Total	7,127	20,446	4,269	17,218	22,869	34,756	26,488	26,548	38,214	2	98,970
2001 Total	6,839	20,065	4,076	17,180	21,833	32,803	26,212	26,275	37,362	-6	96,316
2002 Total	6,901	20,838	4,136	17,404	21,855	32,762	26,783	26,844	38,173	5	97,853
2003 Total	7,183	21,139	4,275	17,388	21,538	32,612	26,919	26,994	38,218	-1	98,131
2004 Total	6,966	21,125	4,223	17,707	22,438	33,592	27,816	27,895	38,876	-6	100,313
2005 Total	6,883	21,660	4,043	17,905	21,448	32,528	28,270	28,352	39,800	(s)	100,445
2006 Total	6,155	20,735	3,739	17,760	R 21,557	R 32,466	28,749	28,829	39,590	(s)	R 99,790
2007 Total	6,607	21,600	3,923	18,314	R 21,430	R 32,499	29,030	29,118	40,540	-3	R 101,527
2008 January	R 1,103	R 2,533	587	1,760	1,959	2,858	R 2,327	R 2,335	3,510	1	R 9,487
February	R 1,024	R 2,254	562	1,645	1,803	2,649	R 2,166	R 2,173	3,165	(s)	R 8,721
March	R 838	R 1,983	468	1,572	1,820	2,715	R 2,379	R 2,386	3,151	-2	R 8,655
April	R 537	R 1,518	325	R 1,408	R 1,703	R 2,599	R 2,351	R 2,358	2,966	-3	R 7,879
May	R 363	R 1,380	239	1,426	1,719	2,694	R 2,439	R 2,446	3,185	-2	R 7,944
June	R 276	R 1,619	195	1,515	1,638	2,607	R 2,335	R 2,342	3,639	1	R 8,084
July	R 251	R 1,812	188	1,583	1,672	R 2,635	R 2,423	R 2,430	3,925	3	R 8,463
August	R 240	R 1,732	184	1,523	1,648	2,594	R 2,412	R 2,419	3,785	1	R 8,270
September	R 236	R 1,441	183	1,400	1,470	2,347	R 2,180	R 2,186	3,305	(s)	R 7,374
October	R 353	R 1,371	248	1,424	R 1,759	R 2,649	R 2,376	R 2,383	3,090	-4	R 7,822
November	R 580	R 1,622	R 346	1,461	R 1,670	2,534	R 2,235	R 2,241	3,029	(s)	R 7,859
December	R 966	R 2,342	519	1,696	1,641	2,474	2,321	R 2,328	3,394	4	R 8,845
Total	R 6,765	R 21,606	4,043	18,411	R 20,503	R 31,358	R 27,944	R 28,027	40,147	(s)	R 99,402
2009 January	R 1,147	R 2,622	616	R 1,822	R 1,718	R 2,500	2,229	2,237	3,470	(s)	R 9,180
February	R 927	R 2,107	508	1,538	R 1,531	R 2,233	2,018	2,025	2,919	-4	R 7,898
March	R 772	R 1,907	445	1,553	R 1,596	R 2,354	R 2,281	R 2,288	3,008	-5	R 8,097
April	R 539	R 1,513	315	1,394	R 1,464	R 2,218	2,233	2,239	2,813	-2	R 7,363
May	R 331	R 1,379	225	1,410	R 1,460	R 2,265	2,283	2,289	3,044	(s)	R 7,343
June	R 261	R 1,535	185	1,480	R 1,455	R 2,263	2,284	2,291	3,385	2	R 7,571
July	R 249	R 1,719	192	1,507	R 1,513	R 2,315	2,347	2,354	3,594	3	R 7,898
August	R 244	R 1,723	189	1,526	R 1,528	R 2,373	2,351	2,358	3,668	3	R 7,983
September	R 255	R 1,427	194	1,378	R 1,518	R 2,301	2,174	2,181	3,145	-1	R 7,286
October	R 394	R 1,418	262	1,406	R 1,617	R 2,414	2,294	2,300	2,971	-2	R 7,535
November	R 531	R 1,534	R 323	1,402	R 1,619	R 2,409	2,165	2,172	R 2,879	-2	R 7,515
December	R 957	R 2,324	522	1,733	R 1,732	R 2,554	2,292	2,300	3,407	(s)	R 8,910
Total	R 6,606	R 21,207	3,974	R 18,148	R 18,751	R 28,199	R 26,951	R 27,033	38,304	-9	R 94,578
2010 January	R 1,159	R 2,717	R 607	1,763	R 1,765	R 2,529	2,197	2,205	3,486	R -3	R 9,211
February	1,002	2,277	545	1,599	1,664	2,403	2,018	2,026	3,075	-5	8,299
2-Month Total	2,161	4,994	1,152	3,361	3,429	4,932	4,216	4,231	6,561	-8	17,510
2009 2-Month Total	2,074	4,728	1,124	3,360	3,249	4,732	4,247	4,262	6,389	-4	17,078
2008 2-Month Total	2,127	4,787	1,149	3,404	3,762	5,508	4,493	4,508	6,675	1	18,208

^a Commercial sector, including commercial combined-heat-and-power (CHP) and commercial electricity-only plants.

^b Industrial sector, including industrial combined-heat-and-power (CHP) and industrial electricity-only plants.

^c Electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public.

^d Through 1988, data are for electric utilities only. Beginning in 1989, data are for electric utilities and independent power producers.

^e See "Primary Energy Consumption" in Glossary.

^f Total energy consumption in the end-use sectors consists of primary energy consumption, electricity retail sales, and electrical system energy losses. See Note 2, "Electrical System Energy Losses," at end of section.

^g A balancing item. 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 equal the sum of the sectoral components due to the use of sector-specific conversion factors for coal and natural gas.

^h Primary energy consumption total. See Table 1.3.

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

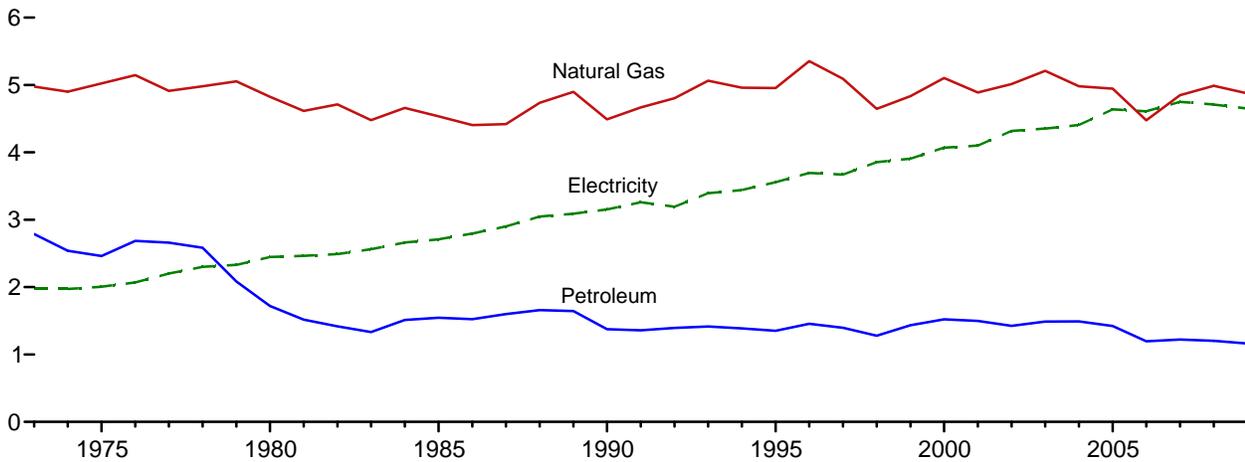
Notes: • See Note, "Classification of Power Plants Into Energy-Use Sectors," at end of Section 7. • See Note 1, "Energy Consumption Data and Surveys," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/mer/consump.html> for all available data beginning in 1973.

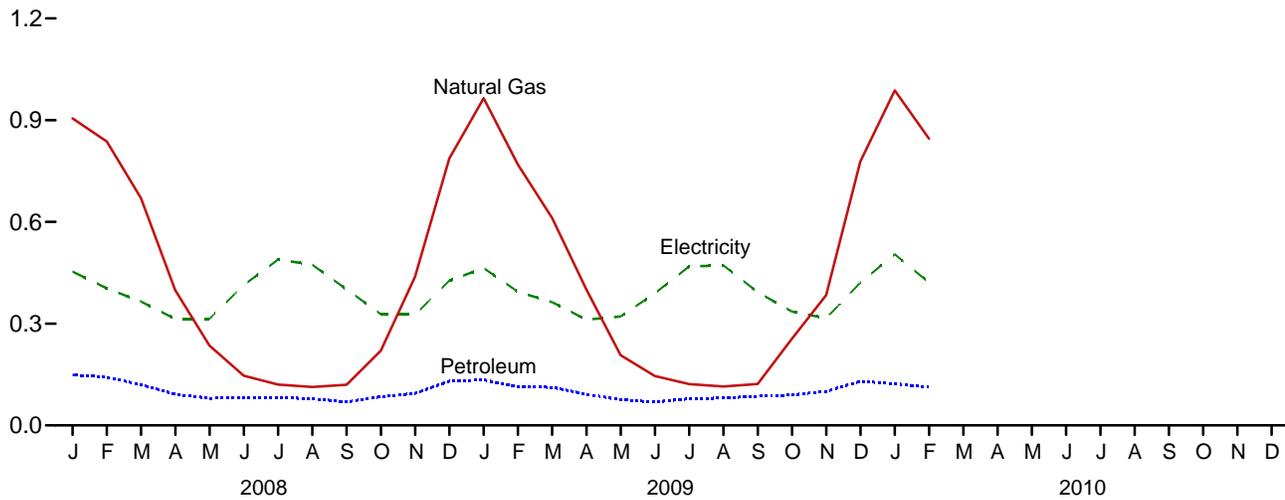
Sources: Tables 1.3 and 2.2-2.6.

Figure 2.2 Residential Sector Energy Consumption
(Quadrillion Btu)

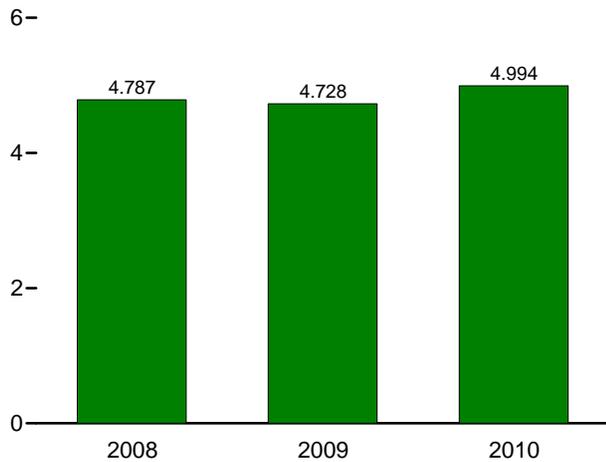
By Major Source, 1973-2009



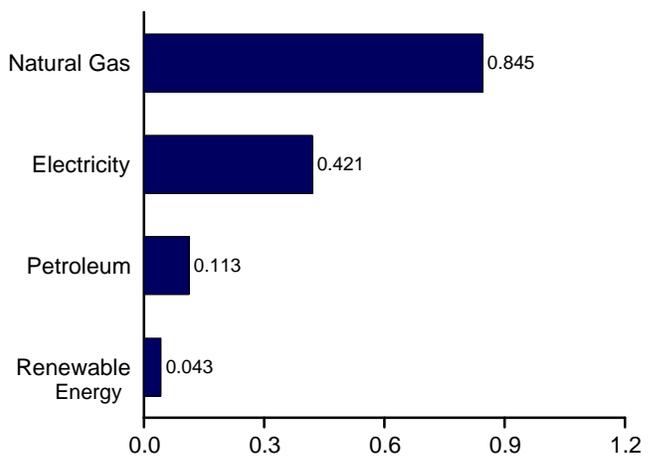
By Major Source, Monthly



Total, January-February



By Major Source, February 2010



Web Page: <http://www.eia.doe.gov/emeu/mer/consump.html>.
Source: Table 2.2.

Table 2.2 Residential Sector Energy Consumption
(Trillion Btu)

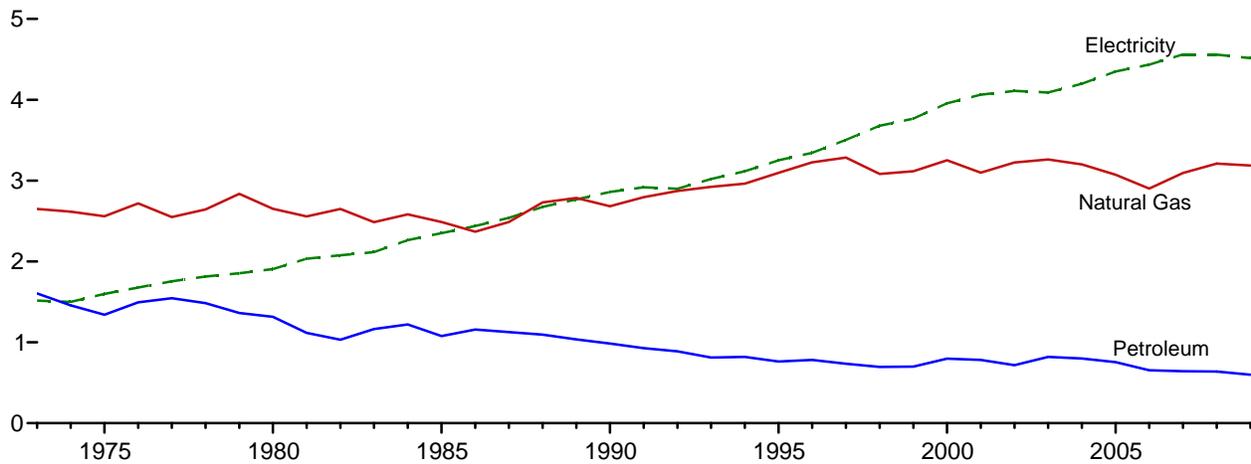
	Primary Consumption ^a									Electricity Retail Sales ^d	Electrical System Energy Losses ^e	Total
	Fossil Fuels				Renewable Energy ^b				Total Primary			
	Coal	Natural Gas ^c	Petroleum	Total	Geo-thermal	Solar/PV	Bio-mass	Total				
1973 Total	94	4,977	2,787	7,858	NA	NA	354	354	8,212	1,976	4,703	14,891
1975 Total	63	5,023	2,463	7,548	NA	NA	425	425	7,973	2,007	4,829	14,810
1980 Total	31	4,825	1,721	6,576	NA	NA	850	850	7,426	2,448	5,885	15,760
1985 Total	39	4,534	1,546	6,119	NA	NA	1,010	1,010	7,129	2,709	6,219	16,057
1990 Total	31	4,491	1,375	5,897	6	56	580	641	6,538	3,153	7,291	16,982
1995 Total	17	4,954	1,352	6,324	7	65	520	591	6,915	3,557	8,075	18,547
1996 Total	17	5,354	1,456	6,827	7	65	540	612	7,440	3,694	8,397	19,531
1997 Total	16	5,093	1,396	6,505	8	65	430	503	7,007	3,671	8,315	18,994
1998 Total	12	4,646	1,280	5,937	8	65	380	452	6,390	3,856	8,741	18,986
1999 Total	14	4,835	1,435	6,284	9	64	390	462	6,746	3,906	8,931	19,583
2000 Total	11	5,105	1,521	6,637	9	61	420	490	7,127	4,069	9,250	20,446
2001 Total	12	4,889	1,499	6,400	9	60	370	439	6,839	4,100	9,126	20,065
2002 Total	12	5,014	1,426	6,452	10	59	380	449	6,901	4,317	9,620	20,838
2003 Total	12	5,209	1,490	6,712	13	58	400	471	7,183	4,353	9,603	21,139
2004 Total	11	4,981	1,491	6,483	14	59	410	483	6,966	4,408	9,750	21,125
2005 Total	8	4,946	1,422	6,377	16	61	430	507	6,883	4,638	10,139	21,660
2006 Total	6	4,476	1,197	5,679	18	67	390	475	6,155	4,611	9,968	20,735
2007 Total	8	4,850	1,223	6,080	22	75	430	527	6,607	4,750	10,242	21,600
2008 January	1	905	149	1,055	2	7	R 38	R 48	R 1,103	454	977	R 2,533
February	1	837	142	980	2	7	R 36	R 45	R 1,024	404	825	R 2,254
March	1	670	120	790	2	7	R 38	R 48	R 838	365	780	R 1,983
April	1	398	92	491	2	7	R 37	R 46	R 537	314	667	R 1,518
May	1	235	80	315	2	7	R 38	R 48	R 363	314	703	R 1,380
June	1	147	82	230	2	7	R 37	R 46	R 276	413	930	R 1,619
July	1	121	82	204	2	7	R 38	R 48	R 251	489	1,072	R 1,812
August	1	113	78	192	2	7	R 38	R 48	R 240	473	1,019	R 1,732
September	(s)	120	69	189	2	7	R 37	R 46	R 236	401	804	R 1,441
October	1	220	85	305	2	7	R 38	R 48	R 353	328	690	R 1,371
November	1	438	95	534	2	7	R 37	R 46	R 580	326	716	R 1,622
December	1	787	130	918	2	7	R 38	R 48	R 966	427	950	R 2,342
Total	8	4,989	1,204	6,201	26	R 88	R 450	R 565	R 6,765	4,708	10,133	R 21,606
2009 January	1	965	134	1,099	R 3	R 9	R 37	R 48	R 1,147	464	1,011	R 2,622
February	1	769	114	883	R 3	R 8	R 33	R 43	R 927	394	786	R 2,107
March	1	611	112	725	R 3	R 9	R 37	R 48	R 772	363	771	R 1,907
April	(s)	401	92	493	R 3	R 8	R 35	R 46	R 539	312	662	R 1,513
May	(s)	R 207	76	R 283	R 3	R 9	R 37	R 48	R 331	321	727	R 1,379
June	(s)	146	69	R 215	R 3	R 8	R 35	R 46	R 261	390	884	R 1,535
July	(s)	122	79	R 201	R 3	R 9	R 37	R 48	R 249	469	1,001	R 1,719
August	(s)	115	81	R 196	R 3	R 9	R 37	R 48	R 244	472	1,008	R 1,723
September	(s)	122	86	208	R 3	R 8	R 35	R 46	R 255	393	779	R 1,427
October	1	255	90	346	R 3	R 9	R 37	R 48	R 394	336	688	R 1,418
November	1	384	100	484	R 3	R 8	R 35	R 46	R 531	316	687	R 1,534
December	1	778	130	909	R 3	R 9	R 37	R 48	R 957	421	945	R 2,324
Total	7	R 4,874	1,162	R 6,043	R 33	R 101	R 430	R 563	R 6,606	4,650	9,950	R 21,207
2010 January	1	988	122	1,111	R 3	R 9	R 37	R 48	R 1,159	504	1,054	R 2,717
February	1	845	113	959	3	8	33	43	1,002	421	854	2,277
2-Month Total	1	1,833	235	2,070	5	16	70	91	2,161	925	1,908	4,994
2009 2-Month Total	2	1,734	248	1,983	5	16	70	91	2,074	858	1,797	4,728
2008 2-Month Total	2	1,742	291	2,035	4	14	74	93	2,127	858	1,802	4,787

^a See "Primary Energy Consumption" in Glossary.
^b Data are estimates. See Table 10.2a for notes on series components.
^c Natural gas only; excludes the estimated portion of supplemental gaseous fuels. See Note 3, "Supplemental Gaseous Fuels," at end of Section 4.
^d Electricity retail sales to ultimate customers reported by electric utilities and, beginning in 1996, other energy service providers.
^e Total losses are calculated as the primary energy consumed by the electric power sector minus the energy content of electricity retail sales. Total losses are allocated to the end-use sectors in proportion to each sector's share of total

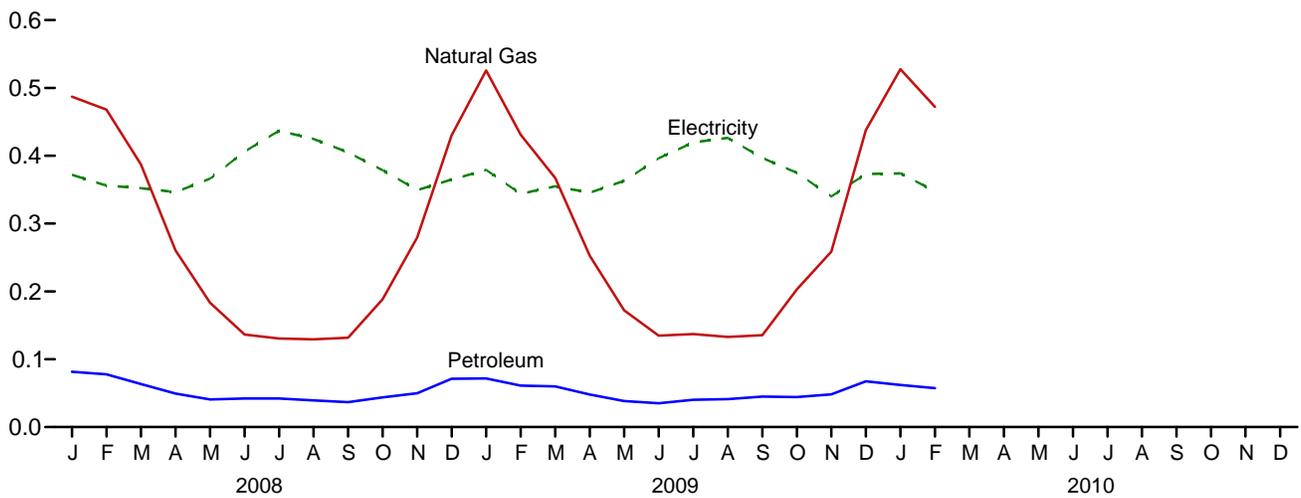
electricity retail sales. See Note 2, "Electrical System Energy Losses," at end of section.
R=Revised. NA=Not available. (s)=Less than 0.5 trillion Btu.
Notes: • See Note 1, "Energy Consumption Data and Surveys," at end of section. • Totals may not equal sum of components due to independent rounding.
• Geographic coverage is the 50 States and the District of Columbia.
Web Page: See <http://www.eia.doe.gov/emeu/mer/consump.html> for all available data beginning in 1973.
Sources: Tables 2.6, 3.8a, 4.3, 6.2, 7.6, 10.2a, A4, A5, and A6.

Figure 2.3 Commercial Sector Energy Consumption
(Quadrillion Btu)

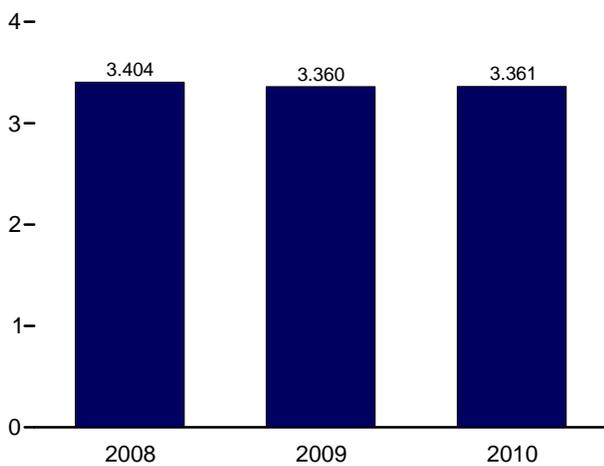
By Major Source, 1973-2009



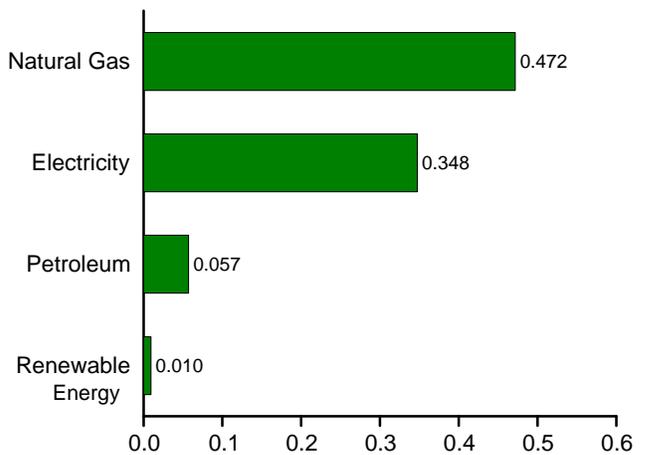
By Major Source, Monthly



Total, January-February



By Major Source, February 2010



Web Page: <http://www.eia.doe.gov/emeu/mer/consump.html>.
Source: Table 2.3.

Table 2.3 Commercial Sector Energy Consumption
(Trillion Btu)

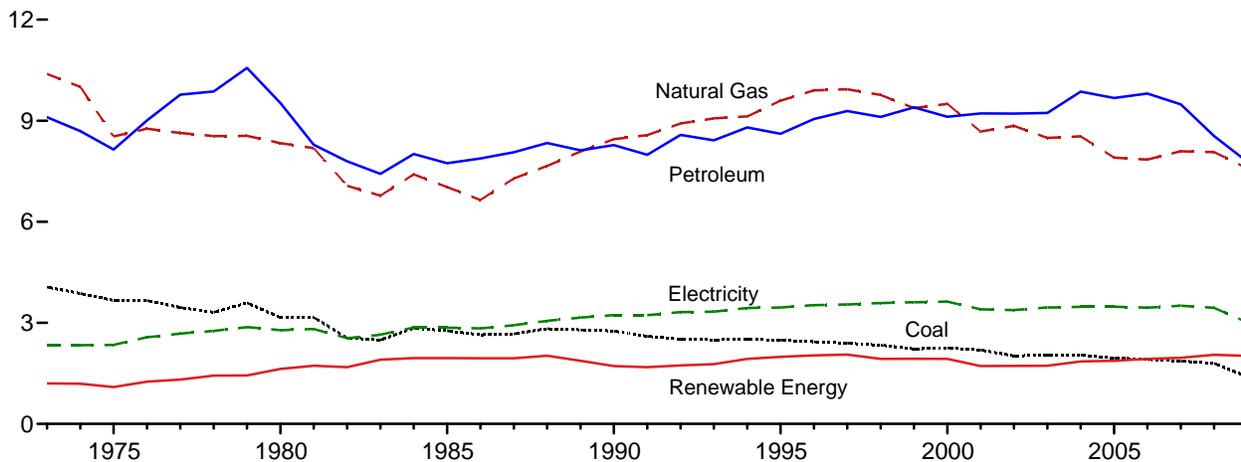
	Primary Consumption ^a								Total Primary	Electricity Retail Sales ^f	Electrical System Energy Losses ^g	Total
	Fossil Fuels				Renewable Energy ^b							
	Coal	Natural Gas ^c	Petroleum ^d	Total	Hydroelectric Power ^e	Geothermal	Bio-mass	Total				
1973 Total	160	2,649	1,604	4,413	NA	NA	7	7	4,419	1,517	3,609	9,545
1975 Total	147	2,558	1,342	4,047	NA	NA	8	8	4,055	1,598	3,845	9,498
1980 Total	115	2,651	1,314	4,080	NA	NA	21	21	4,101	1,906	4,582	10,590
1985 Total	137	2,488	1,077	3,702	NA	NA	24	24	3,726	2,351	5,398	11,475
1990 Total	124	2,682	985	3,792	1	3	94	98	3,890	2,860	6,615	13,365
1995 Total	117	3,096	763	3,976	1	5	113	118	4,094	3,252	7,382	14,729
1996 Total	122	3,226	783	4,131	1	5	129	135	4,266	3,344	7,603	15,213
1997 Total	129	3,285	736	4,150	1	6	131	138	4,289	3,503	7,935	15,726
1998 Total	93	3,083	695	3,871	1	7	118	127	3,998	3,678	8,338	16,014
1999 Total	103	3,115	699	3,917	1	7	121	129	4,045	3,766	8,610	16,422
2000 Total	92	3,252	798	4,141	1	8	119	128	4,269	3,956	8,993	17,218
2001 Total	97	3,097	781	3,975	1	8	92	101	4,076	4,062	9,042	17,180
2002 Total	90	3,225	717	4,032	(s)	9	95	104	4,136	4,110	9,159	17,404
2003 Total	82	3,261	819	4,162	1	11	101	113	4,275	4,090	9,023	17,388
2004 Total	103	3,201	801	4,105	1	12	105	118	4,223	4,198	9,286	17,707
2005 Total	97	3,073	754	3,924	1	14	105	119	4,043	4,351	9,511	17,905
2006 Total	65	2,902	655	3,622	1	14	102	117	3,739	4,435	9,587	17,760
2007 Total	70	3,094	642	3,806	1	14	102	118	3,923	4,560	9,831	18,314
2008 January	8	487	81	576	(s)	1	9	10	587	372	801	1,760
February	7	468	78	553	(s)	1	R 9	10	562	356	726	1,645
March	7	387	64	458	(s)	1	9	10	468	352	752	1,572
April	5	260	49	314	(s)	1	9	10	325	346	736	R 1,408
May	5	183	41	229	(s)	1	9	11	239	366	821	1,426
June	6	136	42	184	(s)	1	9	10	195	406	914	1,515
July	5	131	42	178	(s)	1	9	11	188	437	958	1,583
August	5	129	39	174	(s)	1	9	11	184	425	914	1,523
September	4	132	37	173	(s)	1	9	10	183	405	811	1,400
October	5	188	44	238	(s)	1	9	10	248	379	797	1,424
November	6	280	50	335	(s)	1	9	10	R 346	349	766	1,461
December	7	430	71	508	(s)	1	9	R 11	519	365	813	1,696
Total	69	3,211	638	3,918	1	15	109	R 125	4,043	4,558	9,810	18,411
2009 January	8	526	72	605	(s)	1	9	11	616	379	827	R 1,822
February	7	431	61	499	(s)	1	8	9	508	344	686	1,538
March	6	367	60	433	(s)	1	10	R 12	445	355	754	1,553
April	4	253	48	305	(s)	1	9	10	315	346	734	1,394
May	4	172	38	214	(s)	1	9	R 11	225	363	822	1,410
June	4	135	35	R 174	(s)	1	9	10	185	396	900	R 1,480
July	4	137	40	181	(s)	1	9	10	192	420	896	1,507
August	4	133	41	178	(s)	1	9	11	189	426	911	1,526
September	4	135	45	184	(s)	1	9	10	194	397	787	1,378
October	5	203	44	252	(s)	1	9	10	262	375	769	1,406
November	5	259	48	312	(s)	1	9	10	R 323	340	739	1,402
December	6	438	67	511	(s)	1	9	11	522	373	838	1,733
Total	61	R 3,187	600	R 3,849	1	R 17	R 108	R 125	3,974	4,514	9,659	R 18,148
2010 January	7	528	62	597	(s)	1	9	11	R 607	374	781	1,763
February	6	472	57	535	(s)	1	8	10	545	348	706	1,599
2-Month Total	13	1,000	119	1,132	(s)	3	17	20	1,152	722	1,487	3,361
2009 2-Month Total	14	957	133	1,104	(s)	3	17	20	1,124	723	1,513	3,360
2008 2-Month Total	15	955	159	1,129	(s)	2	18	20	1,149	728	1,527	3,404

^a See "Primary Energy Consumption" in Glossary.
^b Most data are estimates. See Table 10.2a for notes on series components and estimation.
^c Natural gas only; excludes the estimated portion of supplemental gaseous fuels. See Note 3, "Supplemental Gaseous Fuels," at end of Section 4.
^d Does not include biofuels that have been blended with petroleum—biofuels are included in "Biomass."
^e Conventional hydroelectric power.
^f Electricity retail sales to ultimate customers reported by electric utilities and, beginning in 1996, other energy service providers.
^g Total losses are calculated as the primary energy consumed by the electric power sector minus the energy content of electricity retail sales. Total losses are allocated to the end-use sectors in proportion to each sector's share of total

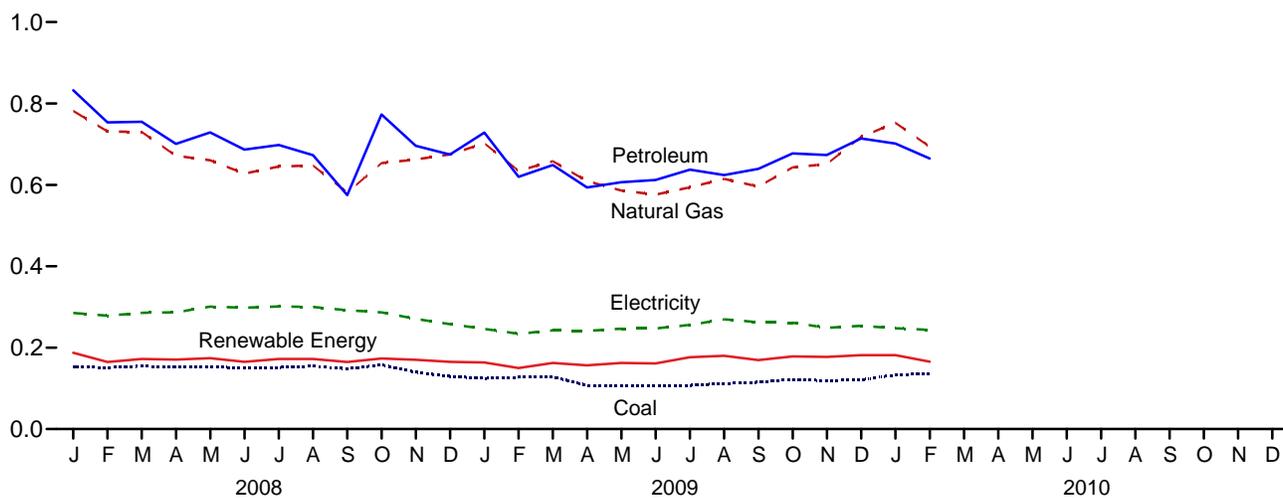
electricity retail sales. See Note 2, "Electrical System Energy Losses," at end of section.
R=Revised. NA=Not available. (s)=Less than 0.5 trillion Btu and greater than -0.5 trillion Btu.
Notes: • The commercial sector includes commercial combined-heat-and-power (CHP) and commercial electricity-only plants. See Note, "Classification of Power Plants Into Energy-Use Sectors," at end of Section 7. • See Note 1, "Energy Consumption Data and Surveys," 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: See <http://www.eia.doe.gov/emeu/mer/consump.html> for all available data beginning in 1973.
Sources: Tables 2.6, 3.8a, 4.3, 6.2, 7.6, 10.2a, A4, A5, and A6.

Figure 2.4 Industrial Sector Energy Consumption
(Quadrillion Btu)

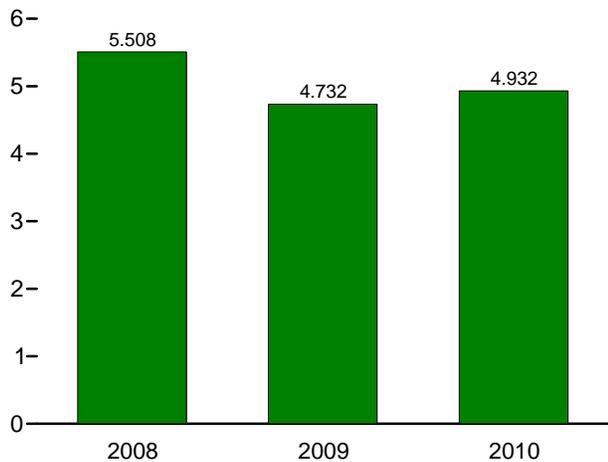
By Major Source, 1973-2009



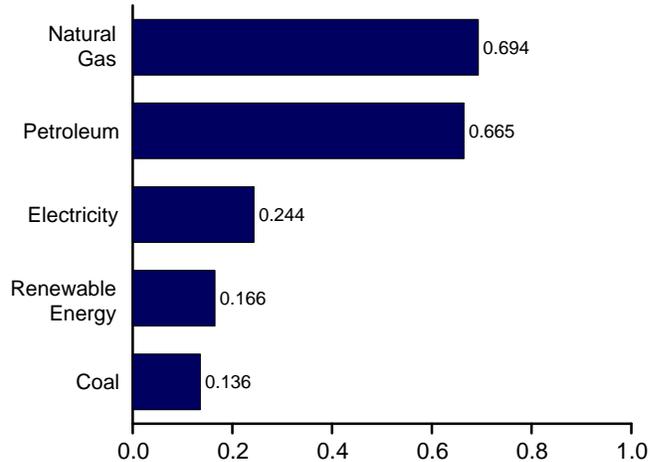
By Major Source, Monthly



Total, January-February



By Major Source, February 2010



Web Page: <http://www.eia.doe.gov/emeu/mer/consump.html>.
Source: Table 2.4.

Table 2.4 Industrial Sector Energy Consumption
(Trillion Btu)

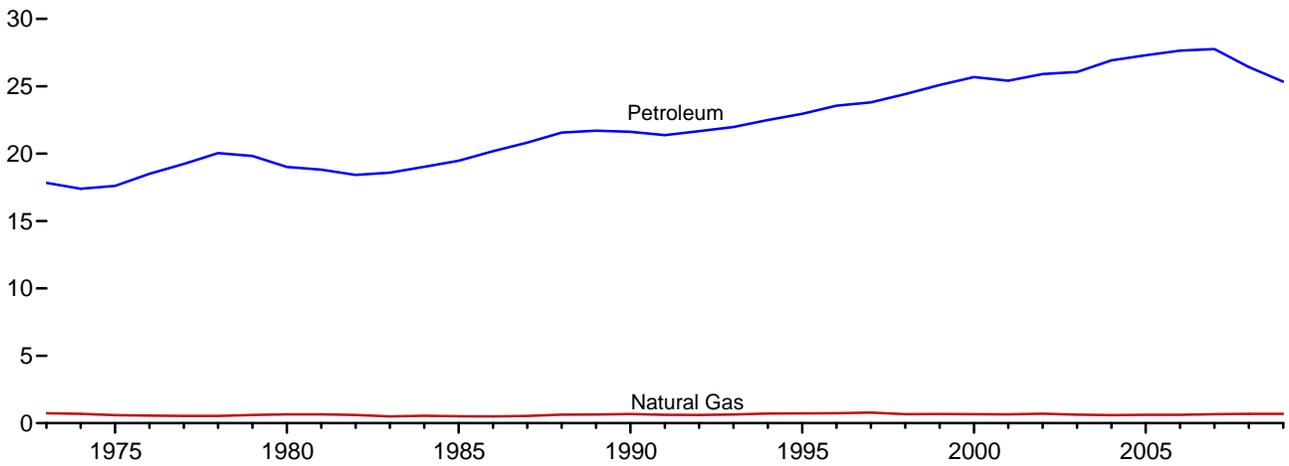
	Primary Consumption ^a									Electricity Retail Sales ^g	Electrical System Energy Losses ^h	Total ^e
	Fossil Fuels				Renewable Energy ^b							
	Coal	Natural Gas ^c	Petroleum ^d	Total ^e	Hydroelectric Power ^f	Geothermal	Bio-mass	Total	Total Primary			
1973 Total	4,057	10,388	9,104	23,541	35	NA	1,165	1,200	24,741	2,341	5,571	32,653
1975 Total	3,667	8,532	8,146	20,359	32	NA	1,063	1,096	21,454	2,346	5,647	29,447
1980 Total	3,155	8,333	9,525	20,977	33	NA	1,600	1,633	22,610	2,781	6,686	32,077
1985 Total	2,760	7,032	7,738	17,516	33	NA	1,918	1,951	19,467	2,855	6,554	28,876
1990 Total	2,756	8,451	8,278	19,490	31	2	1,684	1,717	21,207	3,226	7,461	31,894
1995 Total	2,488	9,592	8,613	20,754	55	3	1,934	1,992	22,746	3,455	7,844	34,045
1996 Total	2,434	9,901	9,052	21,410	61	3	1,969	2,033	23,442	3,527	8,018	34,988
1997 Total	2,395	9,933	9,289	21,663	58	3	1,996	2,057	23,720	3,542	8,024	35,287
1998 Total	2,335	9,763	9,114	21,280	55	3	1,872	1,929	23,209	3,587	8,131	34,926
1999 Total	2,227	9,375	9,395	21,054	49	4	1,882	1,934	22,989	3,611	8,254	34,854
2000 Total	2,256	9,500	9,119	20,941	42	4	1,881	1,928	22,869	3,631	8,256	34,756
2001 Total	2,192	8,676	9,217	20,115	33	5	1,681	1,719	21,833	3,400	7,569	32,803
2002 Total	2,019	8,845	9,209	20,135	39	5	1,676	1,720	21,855	3,379	7,529	32,762
2003 Total	2,041	8,488	9,232	19,812	43	3	1,679	1,726	21,538	3,454	7,620	32,612
2004 Total	2,047	8,536	9,864	20,585	33	4	1,817	1,853	22,438	3,473	7,682	33,592
2005 Total	1,954	7,903	9,673	19,575	32	4	1,837	1,873	21,448	3,477	7,602	32,528
2006 Total	1,914	7,846	9,805	19,627	29	4	R 1,897	R 1,930	R 21,557	3,451	7,459	R 32,466
2007 Total	1,865	8,090	9,486	19,466	16	5	R 1,944	R 1,964	R 21,430	3,507	7,562	R 32,499
2008 January	153	782	833	1,771	2	(s)	185	R 188	1,959	285	614	2,858
February	151	731	754	1,638	2	(s)	163	165	1,803	278	568	2,649
March	155	730	755	1,648	2	(s)	170	172	1,820	286	610	2,715
April	152	671	701	1,532	2	(s)	168	R 171	R 1,703	287	609	R 2,599
May	153	660	729	1,545	2	(s)	172	174	1,719	301	674	2,694
June	150	627	687	1,473	1	(s)	163	165	1,638	298	671	2,607
July	152	645	698	1,500	1	(s)	R 171	172	1,672	301	661	R 2,635
August	154	648	673	1,476	1	(s)	R 171	172	1,648	300	646	2,594
September	148	581	575	1,306	1	(s)	163	R 165	1,470	292	585	2,347
October	158	654	773	1,585	1	(s)	172	173	R 1,759	287	603	R 2,649
November	140	662	696	1,499	1	(s)	169	170	R 1,670	271	594	2,534
December	129	675	674	1,476	2	(s)	163	165	1,641	258	575	2,474
Total	1,796	8,067	8,547	18,450	17	5	R 2,031	R 2,053	R 20,503	3,444	7,411	R 31,358
2009 January	125	R 702	729	1,554	2	(s)	R 161	R 163	R 1,718	246	536	R 2,500
February	127	R 635	620	1,381	1	(s)	R 148	R 150	R 1,531	234	467	R 2,233
March	128	R 658	649	R 1,434	2	(s)	R 160	R 162	R 1,596	243	515	R 2,354
April	107	R 609	594	R 1,308	2	(s)	R 154	R 157	R 1,464	241	512	R 2,218
May	107	R 586	606	R 1,297	2	(s)	R 160	R 163	R 1,460	247	558	R 2,265
June	107	R 576	612	R 1,293	2	(s)	R 159	R 161	R 1,455	247	561	R 2,263
July	107	R 594	637	R 1,337	1	(s)	R 175	R 176	R 1,513	256	546	R 2,315
August	112	R 615	624	R 1,348	1	(s)	R 178	R 180	R 1,528	270	576	R 2,373
September	115	R 596	639	R 1,349	1	(s)	R 168	R 169	R 1,518	262	520	R 2,301
October	122	R 643	677	R 1,438	1	(s)	R 177	R 178	R 1,617	261	536	R 2,414
November	119	R 651	673	R 1,442	1	(s)	R 176	R 177	R 1,619	249	541	R 2,409
December	121	R 718	714	R 1,550	2	(s)	R 179	R 181	R 1,732	253	569	R 2,554
Total	1,396	R 7,584	7,775	R 16,732	18	R 4	R 1,997	R 2,019	R 18,751	3,009	6,439	R 28,199
2010 January	R 133	R 752	702	R 1,583	2	(s)	R 180	R 182	R 1,765	248	517	R 2,529
February	136	694	665	1,499	2	(s)	164	166	1,664	244	495	2,403
2-Month Total	269	1,446	1,367	3,082	3	1	343	347	3,429	491	1,012	4,932
2009 2-Month Total	252	1,337	1,349	2,935	3	1	310	314	3,249	480	1,003	4,732
2008 2-Month Total	304	1,513	1,586	3,409	3	1	348	352	3,762	564	1,182	5,508

^a See "Primary Energy Consumption" in Glossary.
^b Most data are estimates. See Table 10.2b for notes on series components and estimation.
^c Natural gas only; excludes the estimated portion of supplemental gaseous fuels. See Note 3, "Supplemental Gaseous Fuels," at end of Section 4.
^d Does not include biofuels that have been blended with petroleum—biofuels are included in "Biomass."
^e Includes coal coke net imports, which are not separately displayed. See Tables 1.4a and 1.4b.
^f Conventional hydroelectric power.
^g Electricity retail sales to ultimate customers reported by electric utilities and, beginning in 1996, other energy service providers.
^h Total losses are calculated as the primary energy consumed by the electric power sector minus the energy content of electricity retail sales. Total losses are

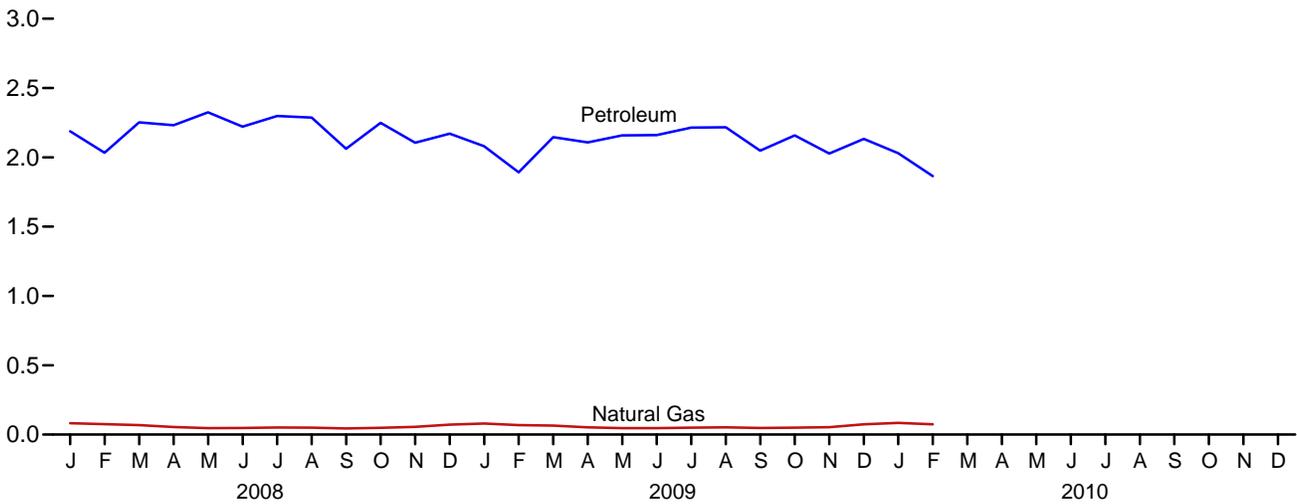
allocated to the end-use sectors in proportion to each sector's share of total electricity retail sales. See Note 2, "Electrical System Energy Losses," at end of section.
R=Revised. NA=Not available. (s)=Less than 0.5 trillion Btu.
Notes: • The industrial sector includes industrial combined-heat-and-power (CHP) and industrial electricity-only plants. See Note, "Classification of Power Plants Into Energy-Use Sectors," at end of Section 7. • See Note 1, "Energy Consumption Data and Surveys," 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: See <http://www.eia.doe.gov/emeu/mer/consump.html> for all available data beginning in 1973.
Sources: Tables 1.4a, 1.4b, 2.6, 3.8b, 4.3, 6.2, 7.6, 10.2b, A4, A5, and A6.

Figure 2.5 Transportation Sector Energy Consumption
(Quadrillion Btu)

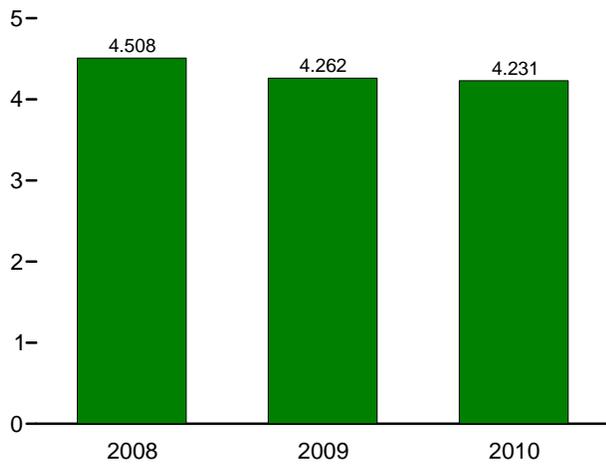
By Major Source, 1973-2009



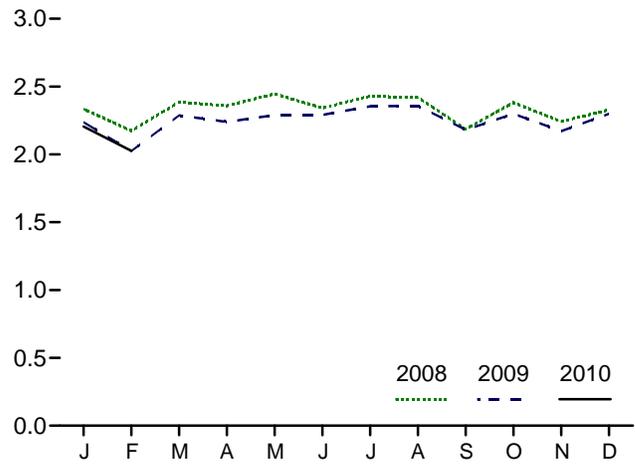
By Major Source, Monthly



Total, January-February



Total, Monthly



Web Page: <http://www.eia.doe.gov/emeu/mer/consump.html>.
Source: Table 2.5.

Table 2.5 Transportation Sector Energy Consumption
(Trillion Btu)

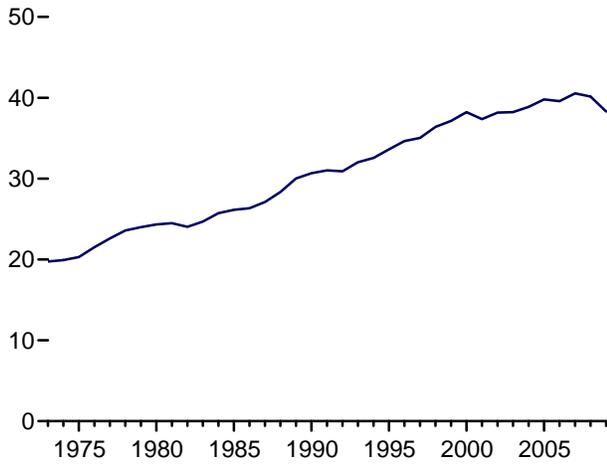
	Primary Consumption ^a						Electricity Retail Sales ^e	Electrical System Energy Losses ^f	Total
	Fossil Fuels				Renewable Energy ^b	Total Primary			
	Coal	Natural Gas ^c	Petroleum ^d	Total	Biomass				
1973 Total	3	743	17,831	18,576	NA	18,576	11	25	18,612
1975 Total	1	595	17,614	18,209	NA	18,209	10	24	18,244
1980 Total	(g)	650	19,009	19,658	NA	19,658	11	27	19,696
1985 Total	(g)	519	19,471	19,990	50	20,040	14	32	20,086
1990 Total	(g)	680	21,625	22,305	60	22,365	16	37	22,419
1995 Total	(g)	724	22,954	23,678	113	23,790	17	39	23,846
1996 Total	(g)	737	23,564	24,301	81	24,382	17	38	24,437
1997 Total	(g)	780	23,812	24,592	102	24,694	17	38	24,749
1998 Total	(g)	666	24,421	25,087	113	25,200	17	38	25,255
1999 Total	(g)	675	25,097	25,773	118	25,891	17	40	25,948
2000 Total	(g)	672	25,681	26,353	135	26,488	18	42	26,548
2001 Total	(g)	658	25,412	26,070	142	26,212	20	43	26,275
2002 Total	(g)	702	25,912	26,614	170	26,783	19	42	26,844
2003 Total	(g)	627	26,062	26,689	230	26,919	23	51	26,994
2004 Total	(g)	602	26,924	27,526	290	27,816	25	55	27,895
2005 Total	(g)	624	27,307	27,931	339	28,270	26	56	28,352
2006 Total	(g)	625	27,649	28,274	475	28,749	25	54	28,829
2007 Total	(g)	665	27,762	28,427	603	29,030	28	60	29,118
2008 January	(g)	82	2,188	2,270	R 57	R 2,327	2	5	R 2,335
February	(g)	75	2,033	2,108	R 58	R 2,166	2	5	R 2,173
March	(g)	68	2,253	2,321	R 59	R 2,379	2	5	R 2,386
April	(g)	54	2,232	2,286	R 65	R 2,351	2	4	R 2,358
May	(g)	47	2,325	2,372	R 67	R 2,439	2	5	R 2,446
June	(g)	48	2,221	2,269	R 67	R 2,335	2	5	R 2,342
July	(g)	51	2,299	2,350	R 73	R 2,423	2	5	R 2,430
August	(g)	50	2,286	2,337	R 75	R 2,412	2	5	R 2,419
September	(g)	44	2,061	2,105	R 75	R 2,180	2	4	R 2,186
October	(g)	49	2,249	2,298	R 78	R 2,376	2	5	R 2,383
November	(g)	56	2,105	2,161	R 74	R 2,235	2	5	R 2,241
December	(g)	72	2,171	2,242	R 78	2,321	2	5	R 2,328
Total	(g)	694	26,423	27,117	R 827	R 27,944	26	57	R 28,027
2009 January	(g)	80	2,081	2,161	68	2,229	3	6	2,237
February	(g)	69	1,892	1,961	57	2,018	2	4	2,025
March	(g)	65	2,145	2,210	R 71	R 2,281	2	5	R 2,288
April	(g)	53	2,107	2,160	73	2,233	2	4	2,239
May	(g)	46	2,158	2,204	79	2,283	2	5	2,289
June	(g)	47	2,160	2,207	77	2,284	2	5	2,291
July	(g)	50	2,215	2,265	82	2,347	2	5	2,354
August	(g)	52	2,216	2,269	82	2,351	2	5	2,358
September	(g)	48	2,048	2,095	79	2,174	2	4	2,181
October	(g)	50	2,158	2,208	85	2,294	2	4	2,300
November	(g)	54	2,028	2,081	84	2,165	2	4	2,172
December	(g)	74	2,133	2,207	85	2,292	2	5	2,300
Total	(g)	687	25,342	26,029	R 922	R 26,951	26	56	R 27,033
2010 January	(g)	84	2,029	2,114	84	2,197	2	5	2,205
February	(g)	75	1,864	1,939	79	2,018	2	5	2,026
2-Month Total	(g)	159	3,894	4,053	163	4,216	5	10	4,231
2009 2-Month Total	(g)	149	3,973	4,122	125	4,247	5	10	4,262
2008 2-Month Total	(g)	157	4,221	4,378	116	4,493	5	10	4,508

^a See "Primary Energy Consumption" in Glossary.
^b Data are estimates. See Table 10.2b for notes on series components.
^c Natural gas only; does not include supplemental gaseous fuels. See Note 3, "Supplemental Gaseous Fuels," at end of Section 4.
^d Does not include biofuels that have been blended with petroleum—biofuels are included in "Biomass."
^e Electricity retail sales to ultimate customers reported by electric utilities and, beginning in 1996, other energy service providers.
^f Total losses are calculated as the primary energy consumed by the electric power sector minus the energy content of electricity retail sales. Total losses are allocated to the end-use sectors in proportion to each sector's share of total

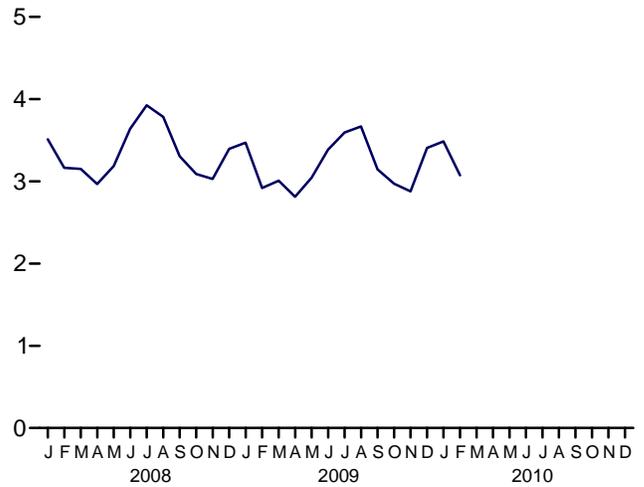
electricity retail sales. See Note 2, "Electrical System Energy Losses," at end of section.
^g Beginning in 1978, the small amounts of coal consumed for transportation are reported as industrial sector consumption.
R=Revised. NA=Not available.
Notes: • See Note 1, "Energy Consumption Data and Surveys," 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: See <http://www.eia.doe.gov/emeu/mer/consump.html> for all available data beginning in 1973.
Sources: Tables 2.6, 3.8c, 4.3, 6.2, 7.6, 10.2b, A4, A5, and A6.

Figure 2.6 Electric Power Sector Energy Consumption
(Quadrillion Btu)

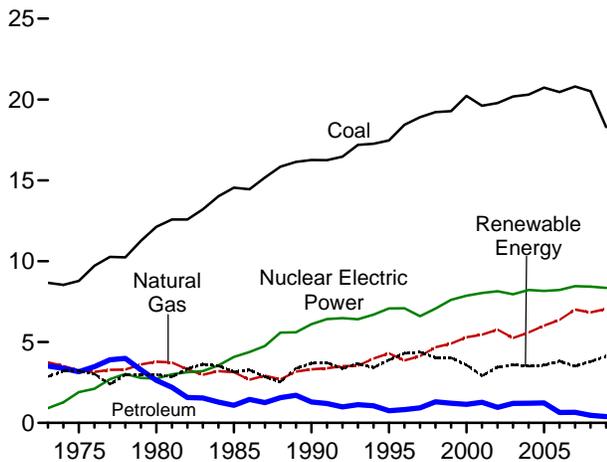
Total, 1973-2009



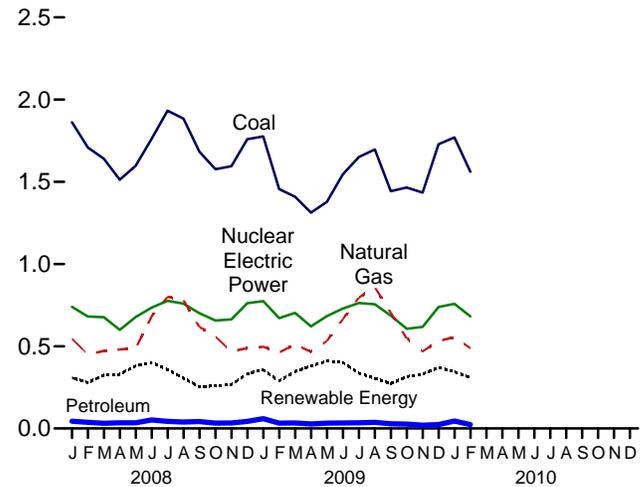
Total, Monthly



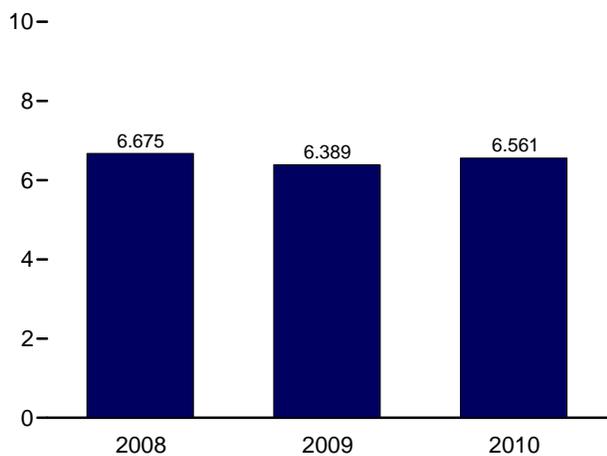
By Major Source, 1973-2009



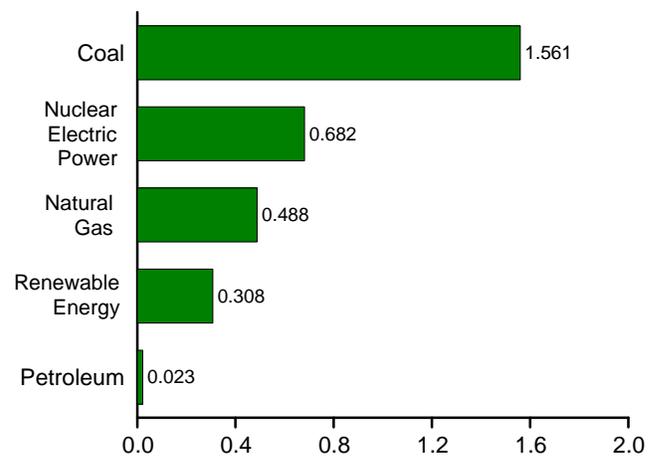
By Major Source, Monthly



Total, January-February



By Major Source, February 2010



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

Table 2.6 Electric Power Sector Energy Consumption
(Trillion Btu)

	Primary Consumption ^a												Elec- tricity Net Imports	Total Primary
	Fossil Fuels				Nuclear Electric Power	Renewable Energy ^b								
	Coal	Natural Gas ^c	Petro- leum	Total		Hydro- electric Power ^d	Geo- thermal	Solar/ PV	Wind	Bio- mass	Total			
1973 Total	8,658	3,748	3,515	15,921	910	2,827	43	NA	NA	3	2,873	49	19,753	
1975 Total	8,786	3,240	3,166	15,191	1,900	3,122	70	NA	NA	2	3,194	21	20,307	
1980 Total	12,123	3,778	2,634	18,534	2,739	2,867	110	NA	NA	4	2,982	71	24,327	
1985 Total	14,542	3,135	1,090	18,767	4,076	2,937	198	(s)	(s)	14	3,150	140	26,132	
1990 Total^e	16,261	3,309	1,289	20,859	6,104	3,014	326	4	29	317	3,689	8	30,660	
1995 Total	17,466	4,302	755	22,523	7,075	3,149	280	5	33	422	3,889	134	33,621	
1996 Total	18,429	3,862	817	23,109	7,087	3,528	300	5	33	438	4,305	137	34,638	
1997 Total	18,905	4,126	927	23,957	6,597	3,581	309	5	34	446	4,371	116	35,045	
1998 Total	19,216	4,675	1,306	25,197	7,068	3,241	311	5	31	444	4,032	88	36,385	
1999 Total	19,279	4,902	1,211	25,393	7,610	3,218	312	5	46	453	4,034	99	37,136	
2000 Total	20,220	5,293	1,144	26,658	7,862	2,768	296	5	57	453	3,579	115	38,214	
2001 Total	19,614	5,458	1,277	26,348	8,029	2,209	289	6	70	337	2,910	75	37,362	
2002 Total	19,783	5,767	961	26,511	8,145	2,650	305	6	105	380	3,445	72	38,173	
2003 Total	20,185	5,246	1,205	26,636	7,959	2,781	303	5	115	397	3,601	22	38,218	
2004 Total	20,305	5,595	1,212	27,112	8,222	2,656	311	6	142	388	3,503	39	38,876	
2005 Total	20,737	6,015	1,235	27,986	8,161	2,670	309	6	178	406	3,568	84	39,800	
2006 Total	20,462	6,375	648	27,485	8,215	2,839	306	5	264	412	3,827	63	39,590	
2007 Total	20,808	7,005	657	28,470	8,455	2,430	308	6	341	423	3,508	107	40,540	
2008 January	1,862	546	44	2,452	739	203	26	(s)	42	37	308	11	3,510	
February	1,708	450	37	2,194	681	184	23	(s)	38	35	279	10	3,165	
March	1,640	472	31	2,144	676	212	26	1	47	38	324	7	3,151	
April	1,513	481	34	2,028	599	217	26	1	51	34	330	9	2,966	
May	1,598	487	35	2,119	678	267	27	1	53	34	381	8	3,185	
June	1,761	681	52	2,494	735	286	27	1	51	36	401	9	3,639	
July	1,933	801	43	2,776	777	251	27	1	39	39	357	15	3,925	
August	1,884	781	39	2,704	759	208	27	1	32	38	307	15	3,785	
September	1,683	616	42	2,342	701	158	26	1	31	36	252	10	3,305	
October	1,577	558	33	2,167	657	151	27	1	47	35	261	6	3,090	
November	1,594	468	34	2,096	663	153	26	(s)	49	36	265	4	3,029	
December	1,760	488	44	2,291	762	204	27	(s)	65	38	334	7	3,394	
Total	20,513	6,829	468	27,810	8,427	2,494	314	9	546	435	3,798	112	40,147	
2009 January	1,776	496	60	2,332	775	233	28	(s)	59	36	356	7	3,470	
February	1,455	462	33	1,950	671	175	25	(s)	56	33	289	8	2,919	
March	1,409	512	34	1,955	703	212	28	1	68	37	346	4	3,008	
April	1,313	466	28	1,807	621	249	25	1	72	33	379	6	2,813	
May	1,378	531	32	1,942	683	288	26	1	60	34	409	9	3,044	
June	1,546	664	33	2,243	729	285	26	1	53	37	402	11	3,385	
July	1,651	797	34	2,482	763	225	27	1	46	37	336	14	3,594	
August	1,697	859	37	2,593	755	188	27	1	52	38	305	15	3,668	
September	1,443	703	29	2,176	686	169	26	1	43	34	273	11	3,145	
October	1,465	547	26	2,038	606	192	27	1	62	33	315	12	2,971	
November	1,434	468	20	1,922	617	205	27	(s)	63	35	330	^R 9	^R 2,879	
December	1,729	532	24	2,285	739	242	28	(s)	62	39	371	11	3,407	
Total	18,296	7,039	390	25,725	8,349	2,663	320	8	697	426	4,113	^R 117	38,304	
2010 January	1,770	555	45	2,370	758	216	28	(s)	63	37	344	14	3,486	
February	1,561	488	23	2,073	682	200	25	(s)	50	33	308	12	3,075	
2-Month Total	3,331	1,044	69	4,443	1,440	416	53	(s)	113	70	652	26	6,561	
2009 2-Month Total	3,232	958	92	4,282	1,446	408	53	(s)	115	70	646	15	6,389	
2008 2-Month Total	3,570	995	81	4,646	1,420	387	48	1	80	72	587	22	6,675	

^a See "Primary Energy Consumption" in Glossary.
^b See Table 10.2c for notes on series components.
^c Natural gas only; excludes the estimated portion of supplemental gaseous fuels. See Note 3, "Supplemental Gaseous Fuels," at end of Section 4.
^d Conventional hydroelectric power.
^e Through 1988, data are for electric utilities only. Beginning in 1989, data are for electric utilities and independent power producers.
R=Revised. NA=Not available. (s)=Less than 0.5 trillion Btu.
Notes: • Data are for fuels consumed to produce electricity and useful thermal

output. • The electric power sector comprises electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public. • See Note 1, "Energy Consumption Data and Surveys," 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: See <http://www.eia.doe.gov/emeu/mer/consump.html> for all available data beginning in 1973.
Sources: Tables 3.8c, 4.3, 6.2, 7.1, 7.2b, 10.2c, A4, A5, and A6.

Energy Consumption by Sector

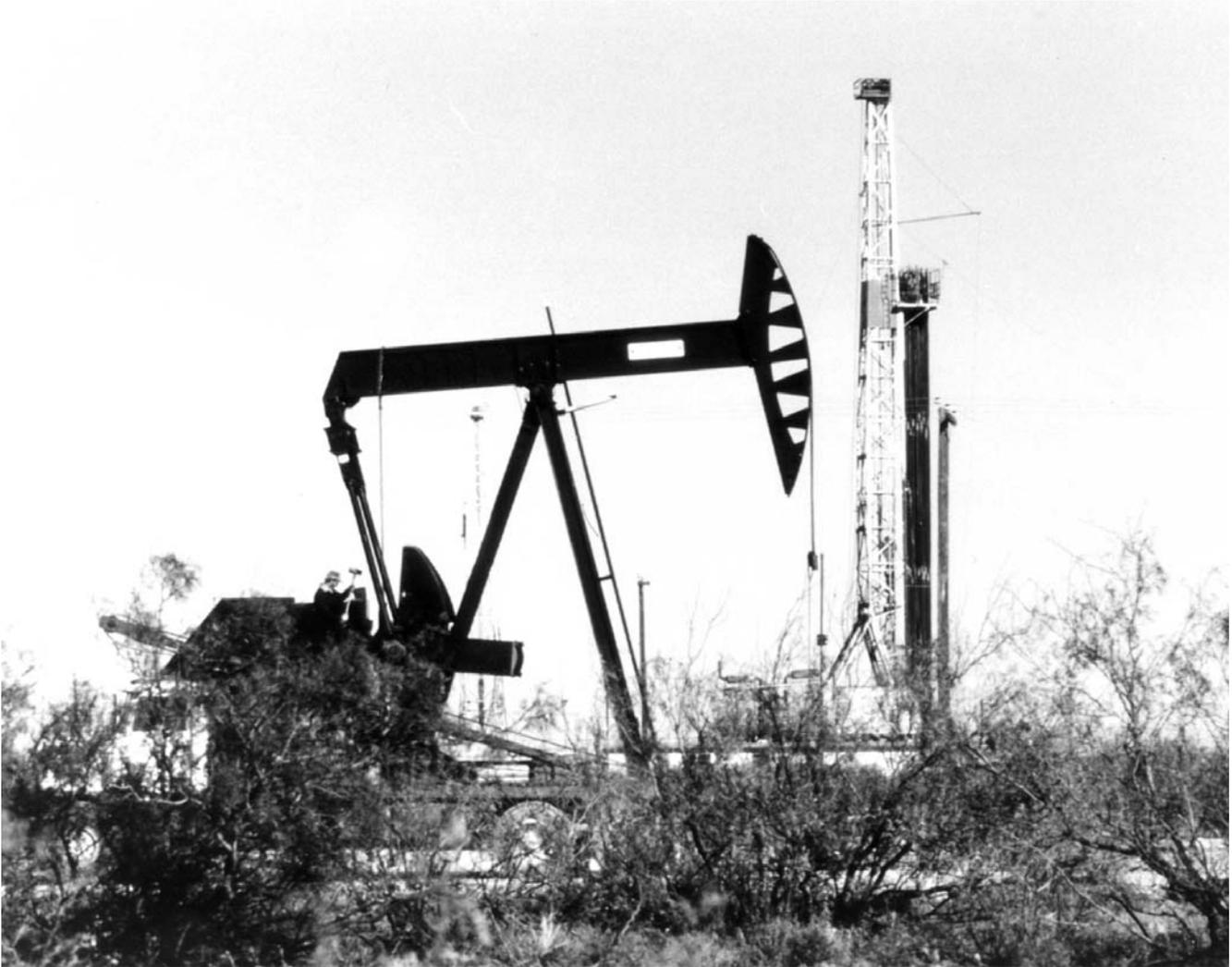
Note 1. Energy Consumption Data and Surveys. Most of the data in this section of the *Monthly Energy Review (MER)* are developed from a group of energy-related surveys, typically called "supply surveys," conducted by the U.S. Energy Information Administration (EIA). Supply surveys are directed to suppliers and marketers of specific energy sources. They measure the quantities of specific energy sources produced, or the quantities supplied to the market, or both. The data obtained from EIA's supply surveys are integrated to yield the summary consumption statistics published in this section (and in Section 1) of the MER.

Users of EIA's energy consumption statistics should be aware of a second group of energy-related surveys, typically called "consumption surveys." Consumption surveys gather information on the types of energy consumed by end users of energy, along with the characteristics of those end users that can be associated with energy use. For example, the Manufacturing Energy Consumption Survey belongs to the consumption survey group because it collects information directly from end users (the manufacturing establishments). There are important differences between the supply and consumption surveys that need to be taken into account in any analysis that uses both data sources. For information on

those differences, see *Energy Consumption by End-Use Sector, A Comparison of Measures by Consumption and Supply Surveys*, DOE/EIA-0533, U.S. Energy Information Administration, Washington, DC, April 6, 1990.

Note 2. 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 electricity retail sales (see Tables 7.6 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, about two thirds of total energy input is lost in conversion. Currently, of electricity generated, approximately 5 percent is lost in plant use and 7 percent is lost in transmission and distribution.

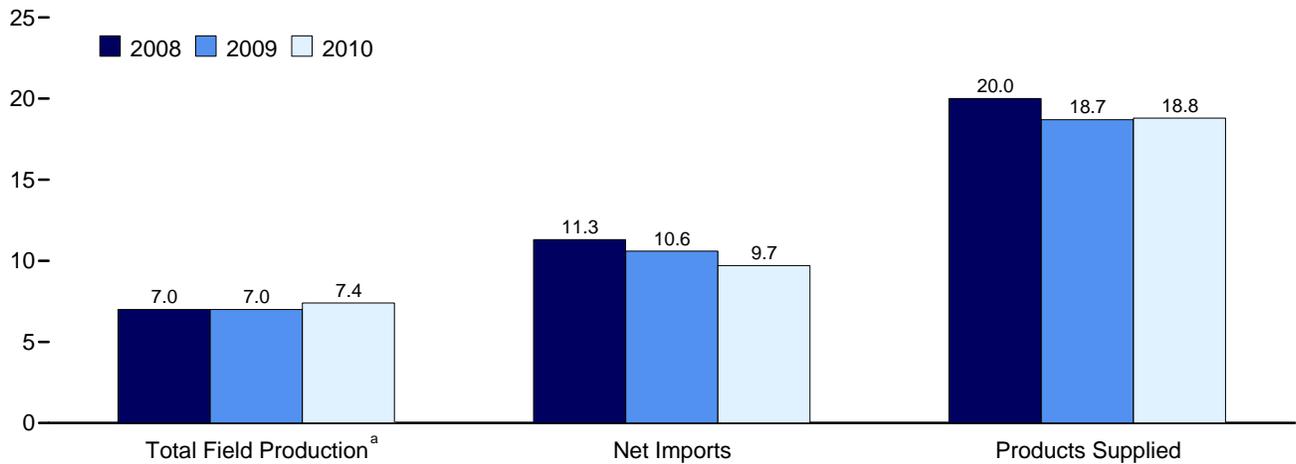
Petroleum



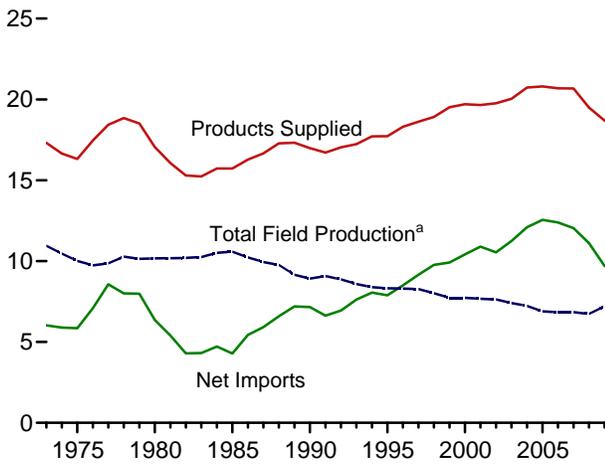
Oil pumping unit and drilling rig, Texas. Source: U.S. Department of Energy.

Figure 3.1 Petroleum Overview
(Million Barrels per Day)

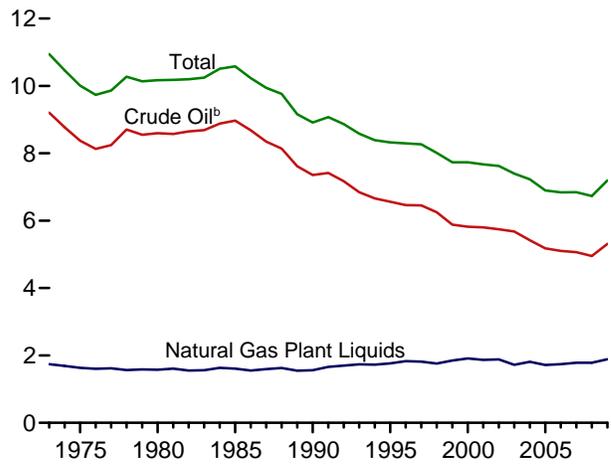
Overview, January-April



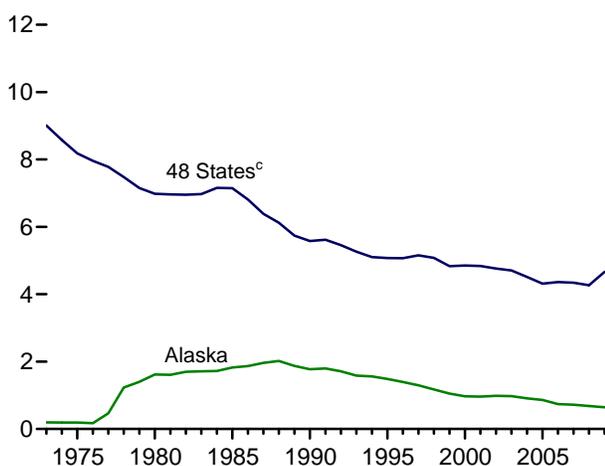
Overview, 1973-2009



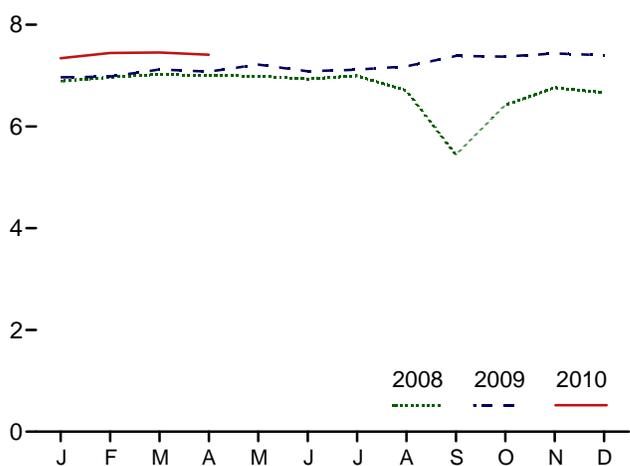
Total Field Production, 1973-2009



Crude Oil^b Field Production, 1973-2009



Total Field Production,^a Monthly



^aCrude oil, including lease condensate, and natural gas plant liquids field production.

^bIncludes lease condensate.

^cUnited States excluding Alaska and Hawaii.

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

Source: Table 3.1.

Table 3.1 Petroleum Overview
(Thousand Barrels per Day)

	Field Production ^a					Renewable Fuels and Oxygenates ^f	Processing Gain ^g	Trade			Stock Change ^j	Adjustments ^k	Petroleum Products Supplied
	Crude Oil ^b			NGPL ^{d,e}	Total			Imports ^h	Exports ^e	Net Imports ⁱ			
	48 States ^c	Alaska	Total										
1973 Average	9,010	198	9,208	1,738	10,946	NA	453	6,256	231	6,025	135	18	17,308
1975 Average	8,183	191	8,375	1,633	10,007	NA	460	6,056	209	5,846	32	41	16,322
1980 Average	6,980	1,617	8,597	1,573	10,170	NA	597	6,909	544	6,365	140	64	17,056
1985 Average	7,146	1,825	8,971	1,609	10,581	NA	557	5,067	781	4,286	-103	200	15,726
1990 Average	5,582	1,773	7,355	1,559	8,914	NA	683	8,018	857	7,161	107	338	16,988
1995 Average	5,076	1,484	6,560	1,762	8,322	NA	774	8,835	949	7,886	-246	496	17,725
1996 Average	5,071	1,393	6,465	1,830	8,295	NA	837	9,478	981	8,498	-151	528	18,309
1997 Average	5,156	1,296	6,452	1,817	8,269	NA	850	10,162	1,003	9,158	143	487	18,620
1998 Average	5,077	1,175	6,252	1,759	8,011	NA	886	10,708	945	9,764	239	495	18,917
1999 Average	4,832	1,050	5,881	1,850	7,731	NA	886	10,852	940	9,912	-422	567	19,519
2000 Average	4,851	970	5,822	1,911	7,733	NA	948	11,459	1,040	10,419	-69	532	19,701
2001 Average	4,839	963	5,801	1,868	7,670	NA	903	11,871	971	10,900	325	501	19,649
2002 Average	4,761	984	5,746	1,880	7,626	NA	957	11,530	984	10,546	-105	527	19,761
2003 Average	4,706	974	5,681	1,719	7,400	NA	974	12,264	1,027	11,238	56	478	20,034
2004 Average	4,510	908	5,419	1,809	7,228	NA	1,051	13,145	1,048	12,097	209	564	20,731
2005 Average	4,314	864	5,178	1,717	6,895	NA	989	13,714	1,165	12,549	145	513	20,802
2006 Average	4,361	741	5,102	1,739	6,841	NA	994	13,707	1,317	12,390	60	522	20,687
2007 Average	4,342	722	5,064	1,783	6,847	NA	996	13,468	1,433	12,036	-148	653	20,680
2008 January	4,389	711	5,100	1,791	6,891	NA	1,071	13,568	1,620	11,949	361	699	20,247
February	4,416	706	5,122	1,845	6,967	NA	962	12,660	1,848	10,812	-446	841	20,029
March	4,424	726	5,151	1,875	7,026	NA	929	12,598	1,807	10,791	-287	799	19,831
April	4,416	701	5,117	1,885	7,002	NA	938	13,331	1,739	11,593	389	672	19,815
May	4,417	685	5,102	1,885	6,987	NA	1,067	12,902	1,793	11,109	248	883	19,798
June	4,443	655	5,098	1,836	6,934	NA	1,014	13,398	2,146	11,252	397	875	19,678
July	4,493	640	5,133	1,861	6,994	NA	1,031	13,124	2,051	11,073	390	849	19,557
August	4,349	544	4,894	1,815	6,708	NA	1,044	13,118	2,053	11,064	403	859	19,272
September	3,249	681	3,930	1,514	5,444	NA	865	11,562	1,323	10,239	-206	1,084	17,839
October	3,953	716	4,669	1,749	6,418	NA	1,016	13,202	1,658	11,545	213	932	19,698
November	4,296	728	5,024	1,740	6,764	NA	1,000	12,881	1,720	11,160	700	827	19,052
December	4,354	702	5,056	1,607	6,663	NA	970	12,607	1,856	10,751	152	910	19,142
Average	4,268	683	4,950	1,784	6,734	NA	993	12,915	1,802	11,114	195	852	19,498
2009 January	E 4,567	E 679	E 5,246	1,721	E 6,967	664	954	13,173	1,927	11,246	879	174	19,125
February	E 4,483	E 708	E 5,191	1,792	E 6,983	682	934	12,190	1,822	10,369	288	26	18,706
March	E 4,561	E 709	E 5,270	1,850	E 7,120	676	906	12,474	1,838	10,636	790	124	18,672
April	E 4,575	E 653	E 5,228	1,851	E 7,078	677	990	11,973	1,900	10,073	559	212	18,471
May	E 4,606	E 678	E 5,283	1,934	E 7,217	706	979	11,596	2,015	9,581	558	251	18,176
June	E 4,612	E 571	E 5,183	1,901	E 7,084	731	1,031	11,902	1,963	9,939	332	309	18,762
July	E 4,681	E 551	E 5,233	1,884	E 7,117	763	987	12,053	2,348	9,704	81	282	18,771
August	E 4,714	E 572	E 5,286	1,896	E 7,182	764	1,002	11,243	2,119	9,124	-426	234	18,732
September	E 4,792	E 652	E 5,444	1,941	E 7,385	756	1,012	11,721	2,105	9,616	541	134	18,362
October	E 4,763	E 658	E 5,422	1,953	E 7,375	769	997	10,856	2,223	8,633	-735	218	18,727
November	E 4,808	E 658	E 5,466	1,970	E 7,436	815	948	11,080	2,029	9,051	-273	27	18,550
December	E 4,805	E 655	E 5,460	1,937	E 7,397	815	1,029	10,487	1,996	8,490	-1,206	226	19,163
Average	E 4,665	E 645	E 5,310	1,886	E 7,196	735	981	11,726	2,026	9,700	112	186	18,686
2010 January	E 4,792	E 640	E 5,433	1,910	E 7,343	838	932	11,236	1,883	9,352	172	234	18,528
February	RE 4,830	RE 635	RE 5,465	R 1,979	RE 7,444	R 857	R 1,065	R 11,148	R 2,012	R 9,136	R -100	R 258	R 18,860
March	E 4,861	E 652	E 5,513	E 1,942	E 7,455	NA	E 969	E 11,419	E 1,653	E 9,766	E 136	NA	E 19,109
April	E 4,865	E 624	E 5,489	E 1,920	E 7,409	NA	E 1,022	E 12,264	E 1,710	E 10,554	E 1,155	NA	E 18,865
4-Month Average	E 4,837	E 638	E 5,475	E 1,937	E 7,412	NA	E 995	E 11,520	E 1,810	E 9,709	E 345	NA	E 18,840
2009 4-Month Average	E 4,548	E 687	E 5,235	1,803	E 7,038	674	946	12,463	1,873	10,591	638	136	18,747
2008 4-Month Average	4,411	711	5,122	1,849	6,971	NA	976	13,043	1,752	11,291	9	752	19,981

^a Crude oil production on leases, and natural gas liquids (liquefied petroleum gases, pentanes plus, and a small amount of finished petroleum products) production at natural gas processing plants. Excludes what was previously classified as "Field Production" of finished motor gasoline, motor gasoline blending components, and other hydrocarbons and oxygenates; these are now included in "Adjustments."

^b Includes lease condensate.
^c United States excluding Alaska and Hawaii.
^d Natural gas plant liquids.
^e See Note 6, "Petroleum Data Discrepancies," at end of section.
^f Renewable fuels and oxygenate plant net production.
^g Refinery and blender net production minus refinery and blender net inputs.
^h Includes Strategic Petroleum Reserve imports. See Table 3.3b.
ⁱ Net imports equal imports minus exports.
^j A negative value indicates a decrease in stocks and a positive value indicates an increase. The current month stock change estimate is based on the change from the previous month's estimate, rather than the stocks values shown in Table 3.4. Includes crude oil stocks in the Strategic Petroleum Reserve, but excludes

distillate fuel oil stocks in the Northeast Heating Oil Reserve. See Table 3.4. Also see Note 4, "Petroleum New Stock Basis," at end of section.

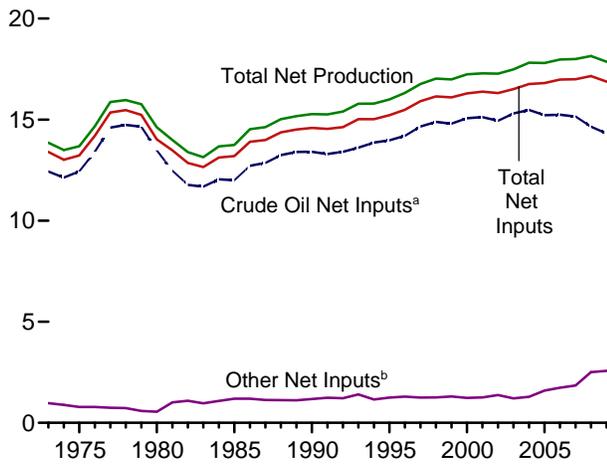
^k An adjustment for crude oil, hydrogen, oxygenates, renewable fuels, other hydrocarbons, motor gasoline blending components, finished motor gasoline, and distillate fuel oil. See U.S. Energy Information Administration (EIA), *Petroleum Supply Monthly*, Appendix B, "PSM Explanatory Notes," for further information.
R=Revised. NA=Not available. E=Estimate.

Notes: • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.
Web Pages: • For all available data beginning in 1973, see <http://www.eia.doe.gov/emeu/mer/petro.html>. • For related information, see http://www.eia.doe.gov/oil_gas/petroleum/info_glance/petroleum.html.

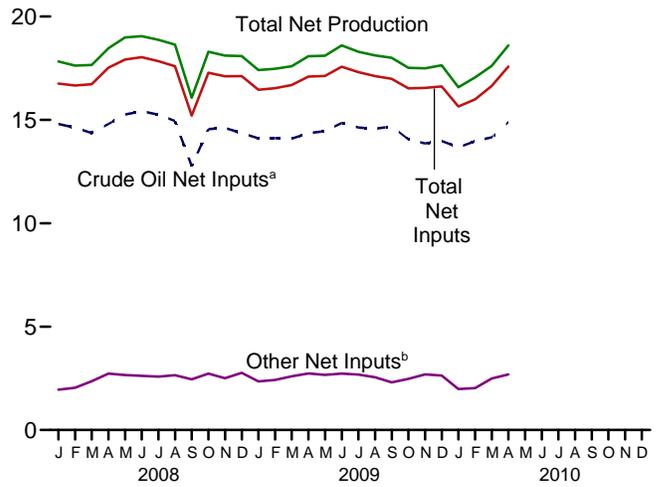
Sources: • **1973-1975:** Bureau of Mines, Mineral Industry Surveys, *Petroleum Statement, Annual*, annual reports. • **1976-1980:** EIA, Energy Data Reports, *Petroleum Statement, Annual*, annual reports. • **1981-2008:** EIA, *Petroleum Supply Annual*, annual reports. • **2009 and 2010:** EIA, *Petroleum Supply Monthly*, monthly reports; and, for the current two months, *Weekly Petroleum Status Report* data system and *Monthly Energy Review* data system calculations.

Figure 3.2 Refinery and Blender Net Inputs and Net Production
(Million Barrels per Day)

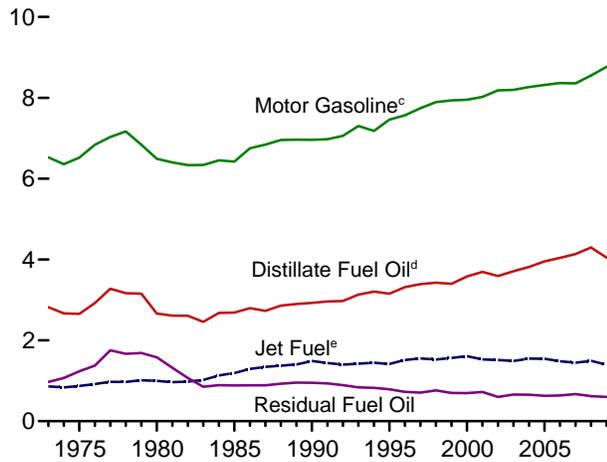
Net Inputs and Net Production, 1973-2009



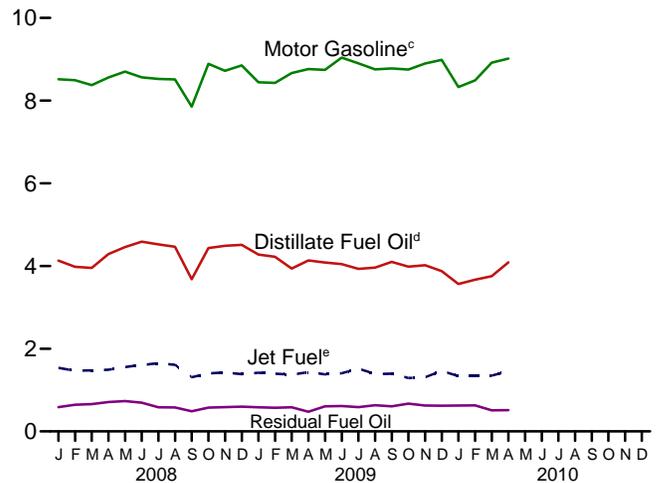
Net Inputs and Net Production, Monthly



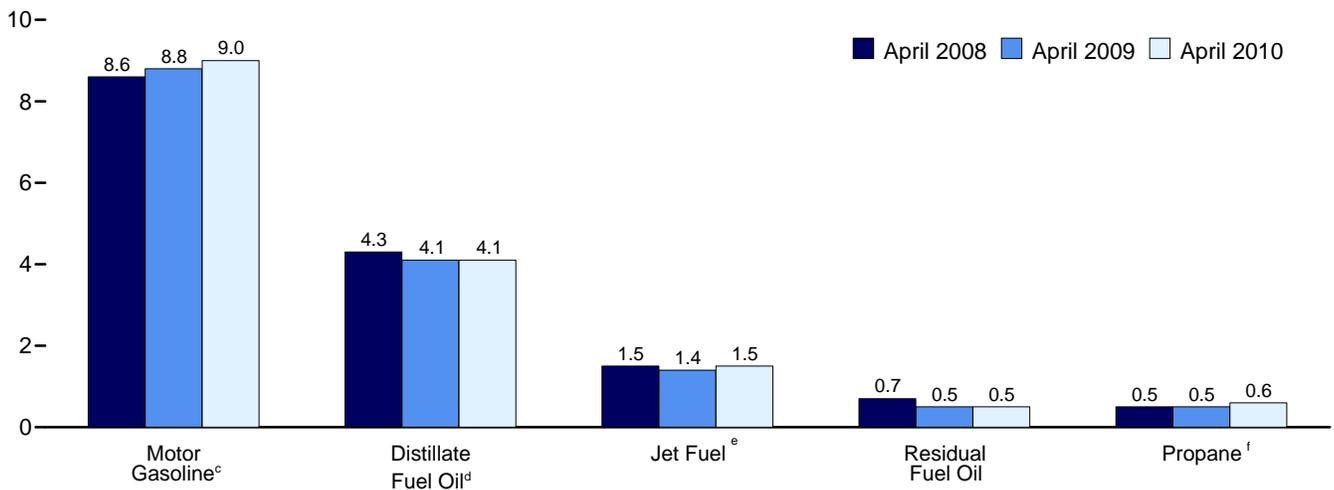
Net Production, Selected Products, 1973-2009



Net Production, Selected Products, Monthly



Net Production, Selected Products



^aIncludes lease condensate.

^bNatural gas plant liquids and other liquids.

^cBeginning in 1993, includes fuel ethanol blended into motor gasoline.

^dBeginning in 2009, includes renewable diesel fuel (including biodiesel) blended into distillate fuel oil.

^eBeginning in 2005, includes kerosene-type jet fuel only.

^fIncludes propylene.

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

Source: Table 3.2.

Table 3.2 Refinery and Blender Net Inputs and Net Production
(Thousand Barrels per Day)

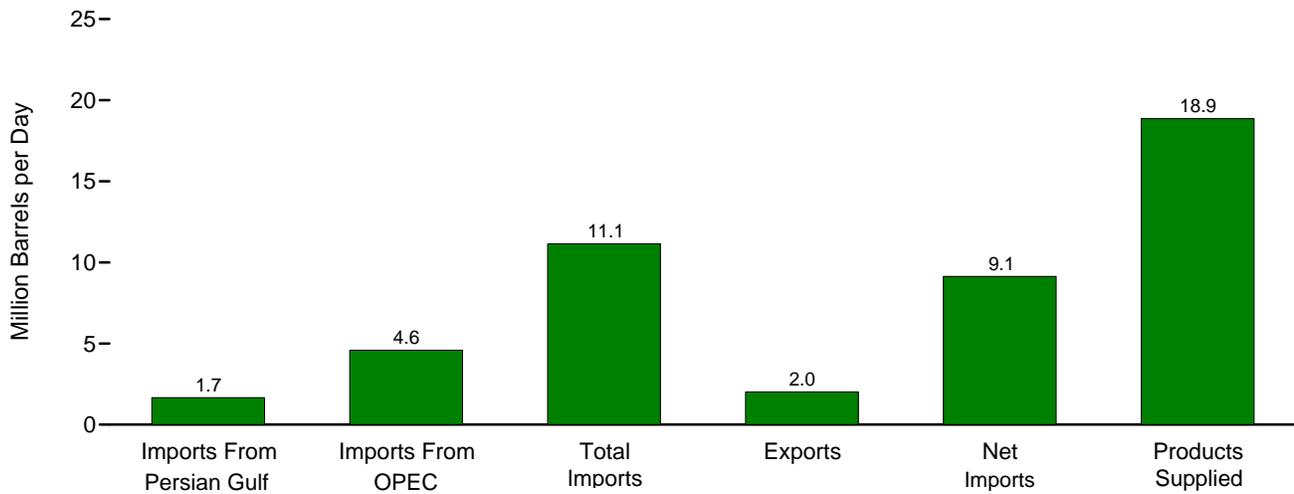
	Refinery and Blender Net Inputs ^a				Refinery and Blender Net Production ^b							
	Crude Oil ^d	NGPL ^e	Other Liquids ^f	Total	Distillate Fuel Oil ^g	Jet Fuel ^h	LPG ^c		Motor Gasoline ⁱ	Residual Fuel Oil	Other Products ^k	Total
							Propane ^j	Total				
1973 Average	12,431	815	155	13,401	2,820	859	271	375	6,527	971	2,301	13,854
1975 Average	12,442	710	72	13,225	2,653	871	234	311	6,518	1,235	2,097	13,685
1980 Average	13,481	462	81	14,025	2,661	999	269	330	6,492	1,580	2,559	14,622
1985 Average	12,002	509	681	13,192	2,686	1,189	295	391	6,419	882	2,183	13,750
1990 Average	13,409	467	713	14,589	2,925	1,488	404	499	6,959	950	2,452	15,272
1995 Average	13,973	471	775	15,220	3,155	1,416	503	654	7,459	788	2,522	15,994
1996 Average	14,195	450	843	15,487	3,316	1,515	520	662	7,565	726	2,541	16,324
1997 Average	14,662	416	832	15,909	3,392	1,554	565	691	7,743	708	2,671	16,759
1998 Average	14,889	403	853	16,144	3,424	1,526	550	674	7,892	762	2,753	17,030
1999 Average	14,804	372	927	16,103	3,399	1,565	569	684	7,934	698	2,709	16,989
2000 Average	15,067	380	849	16,295	3,580	1,606	583	705	7,951	696	2,705	17,243
2001 Average	15,128	429	825	16,382	3,695	1,530	556	667	8,022	721	2,651	17,285
2002 Average	14,947	429	941	16,316	3,592	1,514	572	671	8,183	601	2,712	17,273
2003 Average	15,304	419	791	16,513	3,707	1,488	570	658	8,194	660	2,780	17,487
2004 Average	15,475	422	866	16,762	3,814	1,547	584	645	8,265	655	2,887	17,814
2005 Average	15,220	441	1,149	16,811	3,954	1,546	540	573	8,318	628	2,782	17,800
2006 Average	15,242	501	1,238	16,981	4,040	1,481	543	627	8,364	635	2,827	17,975
2007 Average	15,156	505	1,337	16,999	4,133	1,448	562	655	8,358	673	2,728	17,994
2008 January	14,804	540	1,414	16,758	4,130	1,535	569	478	8,516	588	2,582	17,829
February	14,625	502	1,538	16,665	3,980	1,467	535	507	8,495	643	2,536	17,627
March	14,364	461	1,901	16,727	3,953	1,475	526	676	8,373	662	2,518	17,656
April	14,799	449	2,279	17,527	4,287	1,492	520	809	8,560	710	2,607	18,465
May	15,263	445	2,211	17,919	4,459	1,558	546	878	8,700	734	2,658	18,986
June	15,417	435	2,183	18,036	4,587	1,605	544	867	8,564	695	2,731	19,050
July	15,255	439	2,144	17,838	4,523	1,647	534	837	8,523	584	2,754	18,869
August	14,947	413	2,236	17,596	4,466	1,609	526	814	8,513	579	2,660	18,641
September	12,759	409	2,040	15,208	3,681	1,312	420	513	7,855	485	2,227	16,073
October	14,552	563	2,162	17,277	4,435	1,401	503	460	8,889	575	2,533	18,293
November	14,606	576	1,925	17,107	4,489	1,425	515	369	8,722	588	2,516	18,108
December	14,352	589	2,178	17,119	4,511	1,383	489	341	8,850	597	2,406	18,089
Average	14,648	485	2,019	17,153	4,294	1,493	519	630	8,548	620	2,561	18,146
2009 January	14,112	554	1,793	16,459	4,276	1,419	479	382	8,445	582	2,309	17,413
February	14,116	497	1,922	16,535	4,222	1,395	483	480	8,429	572	2,371	17,469
March	14,091	449	2,147	16,688	3,937	1,372	519	626	8,668	584	2,407	17,594
April	14,354	418	2,321	17,092	4,133	1,433	544	791	8,761	476	2,490	18,082
May	14,459	435	2,231	17,125	4,086	1,378	556	808	8,742	606	2,484	18,104
June	14,845	434	2,294	17,573	4,044	1,405	567	850	9,042	614	2,649	18,604
July	14,633	439	2,240	17,312	3,929	1,514	555	818	8,903	588	2,546	18,298
August	14,568	406	2,147	17,121	3,962	1,391	554	842	8,755	632	2,539	18,122
September	14,684	488	1,818	16,990	4,099	1,396	561	633	8,779	606	2,490	18,002
October	14,053	547	1,924	16,525	3,984	1,291	529	486	8,752	673	2,335	17,521
November	13,861	617	2,071	16,550	4,019	1,311	552	388	8,897	626	2,257	17,497
December	13,979	587	2,049	16,615	3,878	1,465	554	443	8,987	623	2,248	17,644
Average	14,313	489	2,081	16,883	4,046	1,398	538	630	8,765	599	2,427	17,864
2010 January	13,671	497	1,482	15,650	3,563	1,339	529	465	8,327	625	2,262	16,581
February	R 13,967	R 405	R 1,623	R 15,995	R 3,670	R 1,343	R 562	R 535	R 8,489	R 630	R 2,392	R 17,060
March	E 14,156	RF 396	RE 2,091	RF 16,643	E 3,753	E 1,349	RE 484	F 647	E 8,917	E 509	RE 2,437	RE 17,612
April	E 14,893	F 399	E 2,290	F 17,582	E 4,089	E 1,458	E 553	F 802	E 9,018	E 513	E 2,724	E 18,604
4-Month Average	E 14,171	E 425	E 1,874	E 16,470	E 3,769	E 1,372	E 531	E 613	E 8,690	E 568	E 2,453	E 17,465
2009 4-Month Average	14,168	479	2,047	16,694	4,140	1,405	507	570	8,578	554	2,394	17,640
2008 4-Month Average	14,647	488	1,783	16,918	4,088	1,493	538	618	8,485	650	2,561	17,894

a See "Refinery and Blender Net Inputs," in Glossary.
b See "Refinery and Blender Net Production," in Glossary.
c Liquefied petroleum gases.
d Includes lease condensate.
e Natural gas plant liquids (liquefied petroleum gases and pentanes plus).
f Unfinished oils (net), other hydrocarbons, and hydrogen. Beginning in 1981, also includes aviation and motor gasoline blending components (net). Beginning in 1993, also includes oxygenates (net), including fuel ethanol. Beginning in 2009, also includes renewable diesel fuel (including biodiesel).
g Beginning in 2009, includes renewable diesel fuel (including biodiesel) blended into distillate fuel oil.
h Through 2004, includes kerosene-type and naphtha-type jet fuel. Beginning in 2005, includes kerosene-type jet fuel only; naphtha-type jet fuel is included in "Other Products."
i Includes propylene.
j Finished motor gasoline. Beginning in 1993, also includes fuel ethanol blended into motor gasoline.

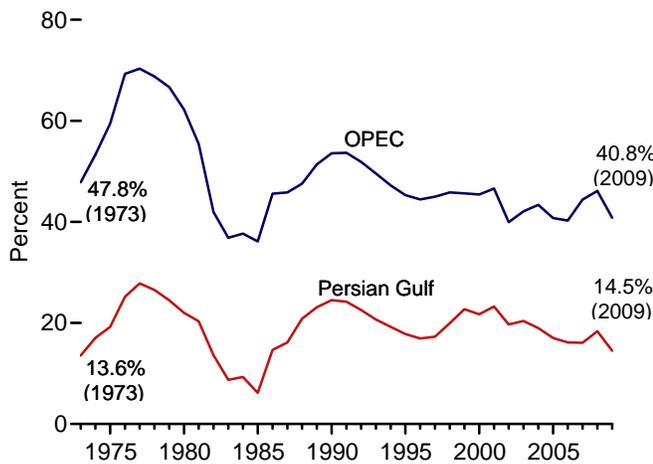
k Asphalt and road oil, finished aviation gasoline, kerosene, lubricants, petrochemical feedstocks, petroleum coke, special naphthas, still gas, waxes, and miscellaneous products. Beginning in 2005, also includes naphtha-type jet fuel.
R=Revised. E=Estimate. F=Forecast.
Notes: • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.
Web Pages: • For all available data beginning in 1973, see <http://www.eia.doe.gov/emeu/mer/petro.html>. • For related information, see http://www.eia.doe.gov/oil_gas/petroleum/info_glance/petroleum.html.
Sources: • 1973-1975: Bureau of Mines, Mineral Industry Surveys, *Petroleum Statement, Annual*, annual reports. • 1976-1980: U.S. Energy Information Administration (EIA), *Energy Data Reports, Petroleum Statement, Annual*, annual reports. • 1981-2008: *Petroleum Supply Annual*, annual reports. • 2009 and 2010: EIA, *Petroleum Supply Monthly*, monthly reports; and, for the current two months, *Weekly Petroleum Status Report* data system, Short-Term Integrated Forecasting System, and *Monthly Energy Review* data system calculations.

Figure 3.3a Petroleum Trade: Overview

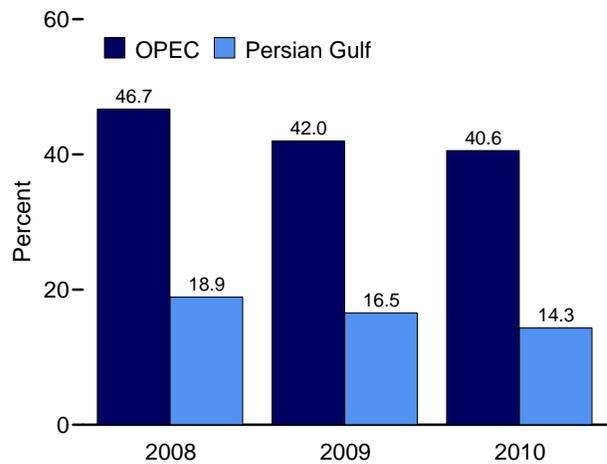
Overview, February 2010



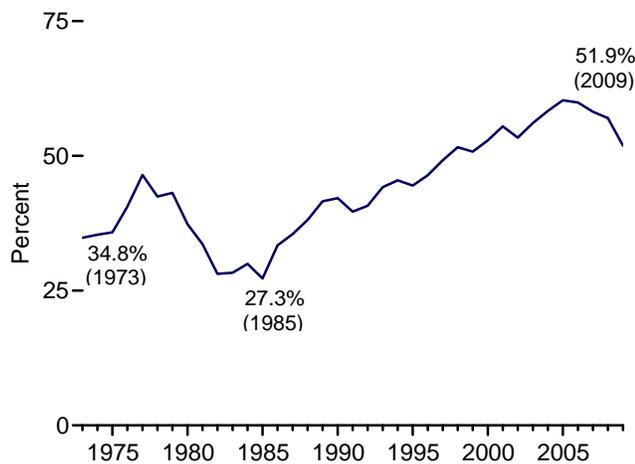
Imports From OPEC and Persian Gulf as Share of Total Imports, 1973-2009



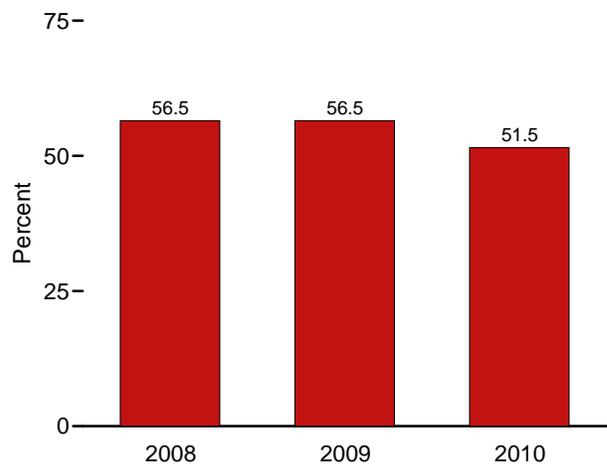
Imports From OPEC and Persian Gulf as Share of Total Imports, January-February



Net Imports as Share of Products Supplied, 1973-2009



Net Imports as Share of Products Supplied, January-April



Note: OPEC=Organization of the Petroleum Exporting Countries.
 Web Page: <http://www.eia.doe.gov/emeu/mer/petro.html>.
 Source: Table 3.3a.

Table 3.3a Petroleum Trade: Overview

	Imports From Persian Gulf ^a	Imports From OPEC ^b	Imports	Exports	Net Imports	Products Supplied	As Share of Products Supplied				As Share of Total Imports	
							Imports From Persian Gulf ^a	Imports From OPEC ^b	Imports	Net Imports	Imports From Persian Gulf ^a	Imports From OPEC ^b
							Thousand Barrels per Day						Percent
1973 Average	848	2,993	6,256	231	6,025	17,308	4.9	17.3	36.1	34.8	13.6	47.8
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
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
1985 Average	311	1,830	5,067	781	4,286	15,726	2.0	11.6	32.2	27.3	6.1	36.1
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
1995 Average	1,573	4,002	8,835	949	7,886	17,725	8.9	22.6	49.8	44.5	17.8	45.3
1996 Average	1,604	4,211	9,478	981	8,498	18,309	8.8	23.0	51.8	46.4	16.9	44.4
1997 Average	1,755	4,569	10,162	1,003	9,158	18,620	9.4	24.5	54.6	49.2	17.3	45.0
1998 Average	2,136	4,905	10,708	945	9,764	18,917	11.3	25.9	56.6	51.6	19.9	45.8
1999 Average	2,464	4,953	10,852	940	9,912	19,519	12.6	25.4	55.6	50.8	22.7	45.6
2000 Average	2,488	5,203	11,459	1,040	10,419	19,701	12.6	26.4	58.2	52.9	21.7	45.4
2001 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 Average	2,269	4,605	11,530	984	10,546	19,761	11.5	23.3	58.3	53.4	19.7	39.9
2003 Average	2,501	5,162	12,264	1,027	11,238	20,034	12.5	25.8	61.2	56.1	20.4	42.1
2004 Average	2,493	5,701	13,145	1,048	12,097	20,731	12.0	27.5	63.4	58.4	19.0	43.4
2005 Average	2,334	5,587	13,714	1,165	12,549	20,802	11.2	26.9	65.9	60.3	17.0	40.7
2006 Average	2,211	5,517	13,707	1,317	12,390	20,687	10.7	26.7	66.3	59.9	16.1	40.2
2007 Average	2,163	5,980	13,468	1,433	12,036	20,680	10.5	28.9	65.1	58.2	16.1	44.4
2008												
January	2,307	6,415	13,568	1,620	11,949	20,247	11.4	31.7	67.0	59.0	17.0	47.3
February	2,663	5,834	12,660	1,848	10,812	20,029	13.3	29.1	63.2	54.0	21.0	46.1
March	2,518	5,934	12,598	1,807	10,791	19,831	12.7	29.9	63.5	54.4	20.0	47.1
April	2,323	6,262	13,331	1,739	11,593	19,815	11.7	31.6	67.3	58.5	17.4	47.0
May	2,450	5,931	12,902	1,793	11,109	19,798	12.4	30.0	65.2	56.1	19.0	46.0
June	2,363	6,054	13,398	2,146	11,252	19,678	12.0	30.8	68.1	57.2	17.6	45.2
July	2,507	6,125	13,124	2,051	11,073	19,557	12.8	31.3	67.1	56.6	19.1	46.7
August	2,438	6,391	13,118	2,053	11,064	19,272	12.7	33.2	68.1	57.4	18.6	48.7
September	2,086	5,127	11,562	1,323	10,239	17,839	11.7	28.7	64.8	57.4	18.0	44.3
October	2,304	5,875	13,202	1,658	11,545	19,698	11.7	29.8	67.0	58.6	17.5	44.5
November	2,283	5,799	12,881	1,720	11,160	19,052	12.0	30.4	67.6	58.6	17.7	45.0
December	2,208	5,679	12,607	1,856	10,751	19,142	11.5	29.7	65.9	56.2	17.5	45.0
Average	2,370	5,954	12,915	1,802	11,114	19,498	12.2	30.5	66.2	57.0	18.4	46.1
2009												
January	2,218	5,676	13,173	1,927	11,246	19,125	11.6	29.7	68.9	58.8	16.8	43.1
February	1,972	4,956	12,190	1,822	10,369	18,706	10.5	26.5	65.2	55.4	16.2	40.7
March	1,823	5,215	12,474	1,838	10,636	18,672	9.8	27.9	66.8	57.0	14.6	41.8
April	1,700	4,754	11,973	1,900	10,073	18,471	9.2	25.7	64.8	54.5	14.2	39.7
May	1,480	4,471	11,596	2,015	9,581	18,176	8.1	24.6	63.8	52.7	12.8	38.6
June	1,586	4,814	11,902	1,963	9,939	18,762	8.5	25.7	63.4	53.0	13.3	40.5
July	1,955	4,623	12,053	2,348	9,704	18,771	10.4	24.6	64.2	51.7	16.2	38.4
August	1,466	4,567	11,243	2,119	9,124	18,732	7.8	24.4	60.0	48.7	13.0	40.6
September	1,718	5,021	11,721	2,105	9,616	18,362	9.4	27.3	63.8	52.4	14.7	42.8
October	1,545	4,581	10,856	2,223	8,633	18,727	8.3	24.5	58.0	46.1	14.2	42.2
November	1,593	4,589	11,080	2,029	9,051	18,550	8.6	24.7	59.7	48.8	14.4	41.4
December	1,378	4,187	10,487	1,996	8,490	19,163	7.2	21.8	54.7	44.3	13.1	39.9
Average	1,701	4,786	11,726	2,026	9,700	18,686	9.1	25.6	62.8	51.9	14.5	40.8
2010												
January	1,546	4,503	11,236	1,883	9,352	18,528	8.3	24.3	60.6	50.5	13.8	40.1
February	R 1,666	R 4,587	R 11,148	R 2,012	R 9,136	R 18,860	R 8.8	R 24.3	R 59.1	R 48.4	R 14.9	R 41.1
March	NA	NA	E 11,419	E 1,653	E 9,766	E 19,109	NA	NA	E 59.8	E 51.1	NA	NA
April	NA	NA	E 12,264	E 1,710	E 10,554	E 18,865	NA	NA	E 65.0	E 55.9	NA	NA
4-Month Average	NA	NA	E 11,520	E 1,810	E 9,709	E 18,840	NA	NA	E 61.1	E 51.5	NA	NA
2009 4-Month Average	1,929	5,158	12,463	1,873	10,591	18,747	10.3	27.5	66.5	56.5	15.5	41.4
2008 4-Month Average	2,450	6,115	13,043	1,752	11,291	19,981	12.3	30.6	65.3	56.5	18.8	46.9

^a Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, United Arab Emirates, and the Neutral Zone (between Kuwait and Saudi Arabia).

^b See "Organization of the Petroleum Exporting Countries (OPEC)" in Glossary. See Table 3.3c for notes on which countries are included in the data.

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

Notes: • Readers of this table may be interested in a feature article, "Measuring Dependence on Imported Oil," that was published in the August 1995 *Monthly Energy Review*. See http://www.eia.doe.gov/emeu/mer/pdf/pages/imported_oil.pdf. • Beginning in October 1977, data include Strategic Petroleum Reserve imports. See Table 3.3b. • 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

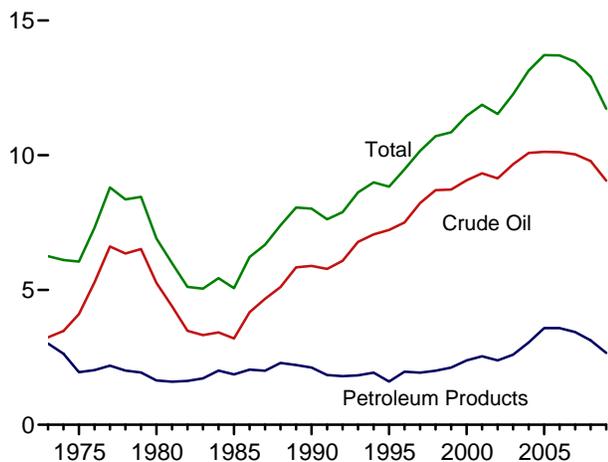
include receipts from U.S. territories.

Web Pages: • For all available data beginning in 1973, see <http://www.eia.doe.gov/emeu/mer/petro.html>. • For related information, see http://www.eia.doe.gov/oil_gas/petroleum/info_glance/petroleum.html.

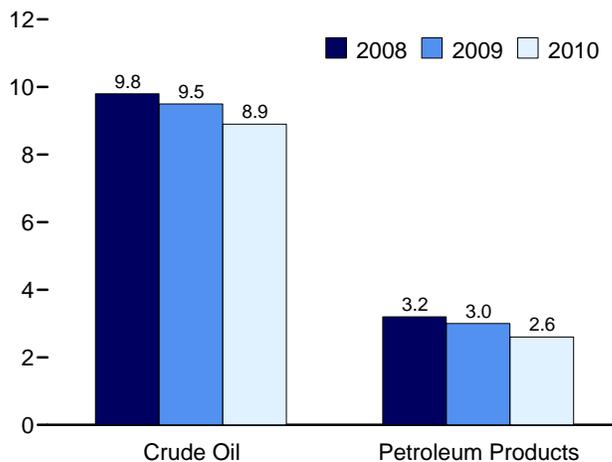
Sources: • **1973-1975:** Bureau of Mines, Mineral Industry Surveys, *Petroleum Statement, Annual*, annual reports. • **1976-1980:** U.S. Energy Information Administration (EIA), Energy Data Reports, *Petroleum Statement, Annual*, annual reports. • **1981-2008:** EIA, *Petroleum Supply Annual*, annual reports. • **2009 and 2010:** EIA, *Petroleum Supply Monthly*, monthly reports; and, for the current two months, *Weekly Petroleum Status Report* data system and *Monthly Energy Review* data system calculations.

Figure 3.3b Petroleum Trade: Imports
(Million Barrels per Day)

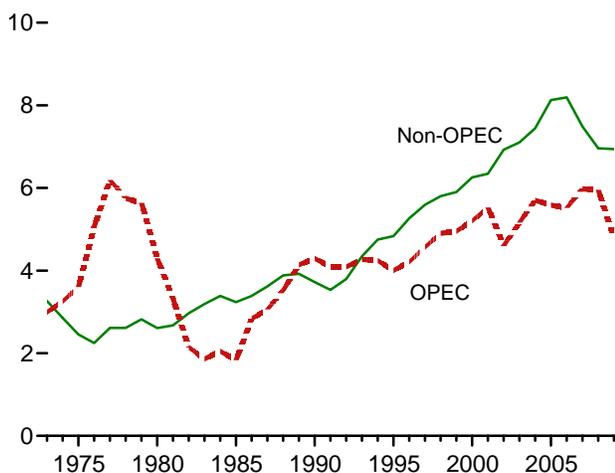
Total, 1973-2009



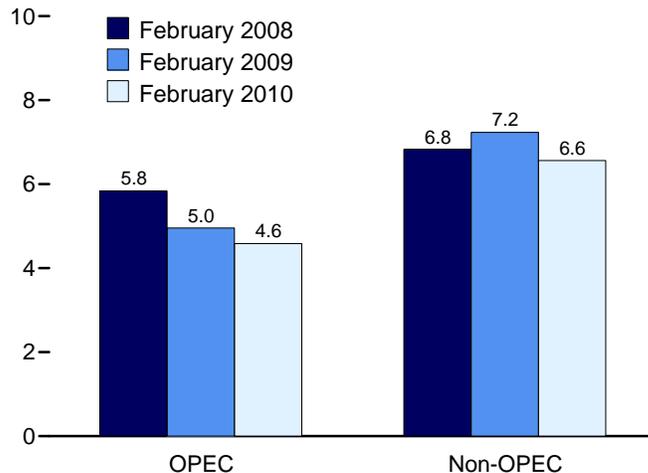
Crude Oil and Petroleum Products, January-April



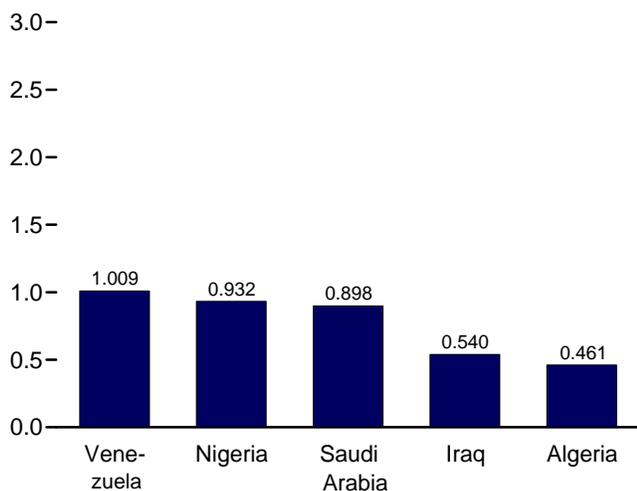
OPEC and Non-OPEC, 1973-2009



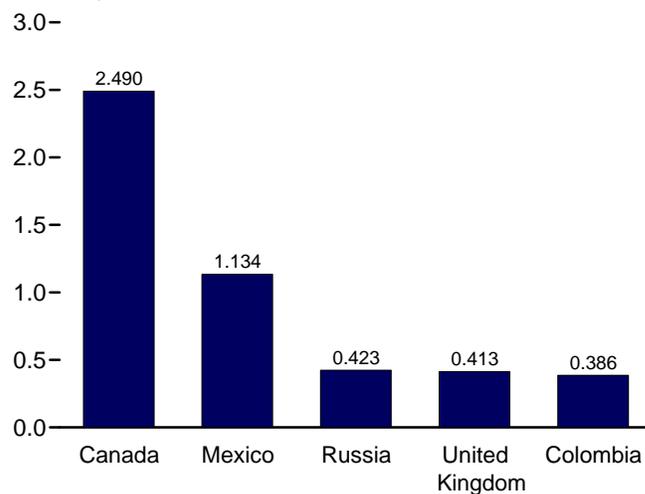
OPEC and Non-OPEC



From Selected OPEC Countries, February 2010



From Selected Non-OPEC Countries, February 2010



Note: OPEC=Organization of the Petroleum Exporting Countries.
Web Page: <http://www.eia.doe.gov/emeu/mer/petro.html>.
Sources: Tables 3.3b-3.3d.

Table 3.3b Petroleum Trade: Imports and Exports by Type
(Thousand Barrels per Day)

	Imports										Exports		
	Crude Oil ^a		Distillate Fuel Oil	Jet Fuel ^e	LPG ^b		Motor Gasoline ^g	Residual Fuel Oil	Other ^h	Total	Crude Oil ^a	Petroleum Products	Total
	SPR ^{c,d}	Total			Propane ^f	Total							
1973 Average	--	3,244	392	212	71	132	134	1,853	290	6,256	2	229	231
1975 Average	--	4,105	155	133	60	112	184	1,223	144	6,056	6	204	209
1980 Average	44	5,263	142	80	69	216	140	939	130	6,909	287	258	544
1985 Average	118	3,201	200	39	67	187	381	510	550	5,067	204	577	781
1990 Average	27	5,894	278	108	115	188	342	504	705	8,018	109	748	857
1995 Average	0	7,230	193	106	102	146	265	187	708	8,835	95	855	949
1996 Average	0	7,508	230	111	119	166	336	248	879	9,478	110	871	981
1997 Average	0	8,225	228	91	113	169	309	194	945	10,162	108	896	1,003
1998 Average	0	8,706	210	124	137	194	311	275	888	10,708	110	835	945
1999 Average	8	8,731	250	128	122	182	382	237	943	10,852	118	822	940
2000 Average	8	9,071	295	162	161	215	427	352	938	11,459	50	990	1,040
2001 Average	11	9,328	344	148	145	206	454	295	1,095	11,871	20	951	971
2002 Average	16	9,140	267	107	145	183	498	249	1,085	11,530	9	975	984
2003 Average	0	9,665	333	109	168	225	518	327	1,087	12,264	12	1,014	1,027
2004 Average	77	10,088	325	127	209	263	496	426	1,419	13,145	27	1,021	1,048
2005 Average	52	10,126	329	190	233	328	603	530	1,609	13,714	32	1,133	1,165
2006 Average	8	10,118	365	186	228	332	475	350	1,881	13,707	25	1,292	1,317
2007 Average	7	10,031	304	217	182	247	413	372	1,885	13,468	27	1,405	1,433
2008 January	17	10,082	309	156	263	327	381	435	1,879	13,568	12	1,608	1,620
February	0	9,636	249	106	214	288	354	308	1,719	12,660	20	1,828	1,848
March	35	9,636	249	110	218	252	374	416	1,561	12,598	29	1,778	1,807
April	17	9,979	266	180	155	232	386	361	1,927	13,331	14	1,725	1,739
May	94	9,664	188	140	164	225	383	351	1,951	12,902	19	1,774	1,793
June	43	10,018	180	91	99	186	461	383	2,080	13,398	22	2,124	2,146
July	26	10,132	181	72	130	194	323	282	1,940	13,124	29	2,022	2,051
August	0	10,324	109	76	186	306	205	334	1,763	13,118	40	2,013	2,053
September	0	8,447	195	88	186	268	253	289	2,023	11,562	39	1,283	1,323
October	0	10,086	166	98	179	225	239	355	2,033	13,202	43	1,615	1,658
November	0	9,944	203	47	196	250	115	285	2,036	12,881	31	1,690	1,720
December	0	9,419	262	68	229	281	148	383	2,045	12,607	46	1,810	1,856
Average	19	9,783	213	103	185	253	302	349	1,913	12,915	29	1,773	1,802
2009 January	--	9,852	368	89	210	239	236	424	1,965	13,173	36	1,890	1,927
February	--	9,205	327	69	195	211	252	372	1,754	12,190	30	1,792	1,822
March	221	9,441	268	92	209	233	263	384	1,793	12,474	30	1,807	1,838
April	130	9,406	166	90	108	133	227	396	1,555	11,973	27	1,874	1,900
May	34	8,931	206	66	103	160	244	387	1,601	11,596	53	1,962	2,015
June	90	9,172	244	65	68	87	218	384	1,731	11,902	57	1,906	1,963
July	--	9,227	191	115	98	118	230	286	1,886	12,053	31	2,317	2,348
August	16	8,883	166	92	62	89	304	263	1,447	11,243	35	2,084	2,119
September	32	9,223	205	91	94	116	142	326	1,618	11,721	42	2,063	2,105
October	--	8,566	177	84	142	167	161	303	1,397	10,856	72	2,151	2,223
November	35	8,709	163	71	206	231	149	282	1,474	11,080	46	1,983	2,029
December	26	8,133	217	55	212	230	232	307	1,312	10,487	65	1,931	1,996
Average	49	9,060	224	82	142	168	222	343	1,627	11,726	44	1,982	2,026
2010 January	--	8,454	429	150	191	216	179	373	1,433	11,236	33	1,851	1,883
February	R--	R 8,680	R 293	R 75	R 216	R 234	R 196	R 378	R 1,291	R 11,148	R 58	R 1,954	R 2,012
March	NA	E 9,017	E 194	E 66	E 169	NA	E 99	E 414	NA	E 11,419	E 33	E 1,620	E 1,653
April	NA	E 9,537	E 190	E 98	E 102	NA	E 151	E 498	NA	E 12,264	E 34	E 1,676	E 1,710
4-Month Average	NA	E 8,923	E 277	E 98	E 169	NA	E 155	E 416	NA	E 11,520	E 39	E 1,772	E 1,810
2009 4-Month Average	90	9,483	282	85	181	204	244	395	1,769	12,463	31	1,842	1,873
2008 4-Month Average	17	9,835	269	138	213	275	374	381	1,771	13,043	19	1,733	1,752

^a Includes lease condensate.
^b Liquefied petroleum gases.
^c "SPR" is the Strategic Petroleum Reserve, which began in October 1977. Through 2003, includes crude oil imports by SPR only; beginning in 2004, includes crude oil imports by SPR, and crude oil imports into SPR by others.
^d See Note 6, "Petroleum Data Discrepancies," at end of section.
^e Through 2004, includes kerosene-type and naphtha-type jet fuel. Beginning in 2005, includes kerosene-type jet fuel only; naphtha-type jet fuel is included in "Other."
^f Includes propylene.
^g Finished motor gasoline. Through 1980, also includes motor gasoline blending components.
^h Asphalt and road oil, finished aviation gasoline, gasoline blending components, kerosene, lubricants, pentanes plus, petrochemical feedstocks, petroleum coke, special naphthas, unfinished oils, waxes, other hydrocarbons and oxygenates, and miscellaneous products. Beginning in 2005, also includes

naphtha-type jet fuel.
R=Revised. NA=Not available. -- =Not applicable. -- =No data reported.
E=Estimate.
Notes: • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.
Web Pages: • For all available data beginning in 1973, see <http://www.eia.doe.gov/emeu/mer/petro.html>. • For related information, see http://www.eia.doe.gov/oil_gas/petroleum/info_glance/petroleum.html.
Sources: • **1973-1975:** Bureau of Mines, Mineral Industry Surveys, *Petroleum Statement, Annual*, annual reports. • **1976-1980:** U.S. Energy Information Administration (EIA), Energy Data Reports, *Petroleum Statement, Annual*, annual reports. • **1981-2008:** EIA, *Petroleum Supply Annual*, annual reports. • **2009 and 2010:** EIA, *Petroleum Supply Monthly*, monthly reports; and, for the current two months, *Weekly Petroleum Status Report* data system and *Monthly Energy Review* data system calculations.

Table 3.3c Petroleum Trade: Imports From OPEC Countries
(Thousand Barrels per Day)

	Algeria	Angola ^a	Ecuador ^b	Iraq	Kuwait ^c	Libya	Nigeria	Saudi Arabia ^c	Venezuela	Other ^d	Total OPEC
1973 Average	136	(^a)	48	4	47	164	459	486	1,135	514	2,993
1975 Average	282	(^a)	57	2	16	232	762	715	702	832	3,601
1980 Average	488	(^a)	27	28	27	554	857	1,261	481	577	4,300
1985 Average	187	(^a)	67	46	21	4	293	168	605	439	1,830
1990 Average	280	(^a)	49	518	86	0	800	1,339	1,025	199	4,296
1995 Average	234	(^a)	(^b)	0	218	0	627	1,344	1,480	98	4,002
1996 Average	256	(^a)	(^b)	1	236	0	617	1,363	1,676	62	4,211
1997 Average	285	(^a)	(^b)	89	253	0	698	1,407	1,773	64	4,569
1998 Average	290	(^a)	(^b)	336	301	0	696	1,491	1,719	73	4,905
1999 Average	259	(^a)	(^b)	725	248	0	657	1,478	1,493	93	4,953
2000 Average	225	(^a)	(^b)	620	272	0	896	1,572	1,546	72	5,203
2001 Average	278	(^a)	(^b)	795	250	0	885	1,662	1,553	105	5,528
2002 Average	264	(^a)	(^b)	459	228	0	621	1,552	1,398	83	4,605
2003 Average	382	(^a)	(^b)	481	220	0	867	1,774	1,376	61	5,162
2004 Average	452	(^a)	(^b)	656	250	20	1,140	1,558	1,554	70	5,701
2005 Average	478	(^a)	(^b)	531	243	56	1,166	1,537	1,529	47	5,587
2006 Average	657	(^a)	(^b)	553	185	87	1,114	1,463	1,419	38	5,517
2007 Average	670	508	(^b)	484	181	117	1,134	1,485	1,361	39	5,980
2008 January	651	578	260	543	239	105	1,191	1,503	1,276	70	6,415
February	380	351	186	780	272	87	1,025	1,608	1,131	14	5,834
March	441	388	238	773	203	124	1,174	1,542	1,033	18	5,934
April	632	591	170	679	181	133	1,221	1,462	1,189	4	6,262
May	620	476	162	583	263	116	918	1,604	1,171	19	5,931
June	492	649	184	693	183	117	1,016	1,464	1,215	43	6,054
July	456	652	227	696	122	128	822	1,690	1,329	5	6,125
August	530	495	298	663	203	113	1,166	1,573	1,305	47	6,391
September	657	416	233	543	110	63	591	1,431	1,051	32	5,127
October	558	539	200	577	240	132	963	1,487	1,162	16	5,875
November	677	450	229	476	292	79	827	1,514	1,236	20	5,799
December	484	562	258	519	219	43	939	1,471	1,159	27	5,679
Average	548	513	221	627	210	103	988	1,529	1,189	26	5,954
2009 January	720	543	278	568	242	64	509	1,362	1,353	38	5,676
February	372	671	243	554	251	60	498	1,115	1,139	51	4,956
March	463	657	215	587	181	61	891	967	1,106	88	5,215
April	612	462	237	484	105	118	733	1,021	891	90	4,754
May	272	505	193	263	93	92	600	1,079	1,341	33	4,471
June	458	447	154	374	179	103	830	959	1,237	75	4,814
July	329	320	122	365	261	59	879	1,153	959	176	4,623
August	551	364	131	500	148	68	917	766	1,070	51	4,567
September	641	414	153	428	246	54	894	1,045	1,146	—	5,021
October	491	450	180	499	104	91	869	943	955	—	4,581
November	400	431	155	458	287	140	980	848	890	—	4,589
December	544	278	86	325	160	23	1,029	893	849	—	4,187
Average	488	460	178	450	187	78	804	1,012	1,078	50	4,786
2010 January	498	280	215	506	77	40	1,013	963	911	—	4,503
February	461	326	152	540	228	40	932	898	1,009	—	4,587
2-Month Average	480	302	185	522	149	40	975	932	957	—	4,543
2009 2-Month Average	555	604	261	562	246	62	504	1,245	1,252	44	5,334
2008 2-Month Average	520	468	224	658	255	96	1,110	1,554	1,206	43	6,134

^a Angola joined OPEC in January 2007. For 1973-2006, Angola is included in "Total Non-OPEC" on Table 3.3d.

^b Ecuador was a member of OPEC from 1973-1992, and rejoined OPEC in November 2007. For 1993-2007, Ecuador is included in "Total Non-OPEC" on Table 3.3d.

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

^d For all years, includes Iran, Qatar, and United Arab Emirates. For 1973-2008, also includes Indonesia; and for 1975-1994, also includes Gabon.

—=No data reported.

Notes: • See "Organization of the Petroleum Exporting Countries (OPEC)" in Glossary. Petroleum imports not classified as "OPEC" on this table are included on Table 3.3d. • 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. • Includes imports for the Strategic Petroleum Reserve, which began in October 1977. • 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 Pages: • For all available data beginning in 1973, see <http://www.eia.doe.gov/emeu/mer/petro.html>. • For related information, see http://www.eia.doe.gov/oil_gas/petroleum/info_glance/petroleum.html.

Sources: • **1973-1975:** Bureau of Mines, Mineral Industry Surveys, *Petroleum Statement, Annual*, annual reports. • **1976-1980:** U.S. Energy Information Administration (EIA), Energy Data Reports, *Petroleum Statement, Annual*, annual reports. • **1981-2008:** EIA, *Petroleum Supply Annual*, annual reports.

• **2009 and 2010:** EIA, *Petroleum Supply Monthly*, monthly reports.

Table 3.3d Petroleum Trade: Imports From Non-OPEC Countries
(Thousand Barrels per Day)

	Brazil	Canada	Colombia	Mexico	Nether-lands	Norway	Russia ^a	United Kingdom	U.S. Virgin Islands	Other	Total Non-OPEC
1973 Average	9	1,325	9	16	53	1	26	15	329	1,480	3,263
1975 Average	5	846	9	71	19	17	14	14	406	1,052	2,454
1980 Average	3	455	4	533	2	144	1	176	388	903	2,609
1985 Average	61	770	23	816	58	32	8	310	247	913	3,237
1990 Average	49	934	182	755	55	102	45	189	282	1,128	3,721
1995 Average	8	1,332	219	1,068	15	273	25	383	278	1,233	4,833
1996 Average	9	1,424	234	1,244	19	313	25	308	313	1,377	5,267
1997 Average	5	1,563	271	1,385	25	309	13	226	300	1,495	5,593
1998 Average	26	1,598	354	1,351	31	236	24	250	293	1,640	5,803
1999 Average	26	1,539	468	1,324	27	304	89	365	280	1,478	5,899
2000 Average	51	1,807	342	1,373	30	343	72	366	291	1,581	6,257
2001 Average	82	1,828	296	1,440	43	341	90	324	268	1,631	6,343
2002 Average	116	1,971	260	1,547	66	393	210	478	236	1,649	6,925
2003 Average	108	2,072	195	1,623	87	270	254	440	288	1,766	7,103
2004 Average	104	2,138	176	1,665	101	244	298	380	330	2,008	7,444
2005 Average	156	2,181	196	1,662	151	233	410	396	328	2,413	8,127
2006 Average	193	2,353	155	1,705	174	196	369	272	328	2,446	8,190
2007 Average	200	2,455	155	1,532	128	142	414	277	346	1,839	7,489
2008 January	225	2,654	198	1,308	94	86	392	213	383	1,600	7,153
February	172	2,530	240	1,328	141	100	451	155	351	1,357	6,826
March	191	2,563	165	1,359	129	80	402	218	289	1,268	6,664
April	235	2,582	170	1,382	185	137	402	229	340	1,406	7,069
May	338	2,367	278	1,220	199	183	460	237	340	1,347	6,971
June	315	2,430	180	1,256	262	122	764	286	314	1,416	7,344
July	275	2,417	192	1,292	152	94	572	187	294	1,524	6,999
August	208	2,247	257	1,401	143	84	490	222	298	1,378	6,727
September	271	2,399	149	1,003	197	74	433	281	345	1,282	6,435
October	354	2,585	200	1,434	176	70	394	386	267	1,463	7,328
November	286	2,534	176	1,406	138	114	445	245	338	1,403	7,082
December	225	2,604	198	1,228	203	80	382	176	289	1,543	6,928
Average	258	2,493	200	1,302	168	102	465	236	320	1,416	6,961
2009 January	450	2,544	269	1,430	127	90	516	147	367	1,556	7,496
February	381	2,515	241	1,364	186	74	478	285	333	1,379	7,235
March	338	2,438	283	1,199	141	192	650	208	264	1,546	7,259
April	278	2,281	347	1,289	117	112	779	424	290	1,301	7,219
May	386	2,206	243	1,186	150	171	813	250	313	1,407	7,125
June	299	2,529	313	1,183	157	173	578	268	268	1,320	7,088
July	392	2,639	305	1,316	118	119	637	188	273	1,443	7,429
August	275	2,524	269	1,159	160	52	512	225	223	1,277	6,676
September	268	2,356	301	1,271	122	59	486	295	280	1,262	6,700
October	174	2,360	292	1,136	84	97	385	266	215	1,265	6,275
November	268	2,527	237	1,083	227	110	425	190	205	1,218	6,491
December	184	2,649	231	1,204	99	65	385	199	289	996	6,300
Average	307	2,464	278	1,234	140	110	554	245	276	1,331	6,939
2010 January	353	2,593	322	1,131	116	126	463	282	308	1,039	6,733
February	226	2,490	386	1,134	126	99	423	413	187	1,077	6,562
2-Month Average	293	2,544	353	1,132	121	113	444	344	251	1,057	6,651
2009 2-Month Average	417	2,530	256	1,399	155	82	498	212	350	1,472	7,372
2008 2-Month Average	200	2,594	218	1,318	117	93	421	185	368	1,483	6,995

^a Through 1992, may include imports from republics other than Russia in the former U.S.S.R. See "Union of Soviet Socialist Republics (U.S.S.R.);" in Glossary.

Notes: • See "Organization of the Petroleum Exporting Countries (OPEC)" in Glossary for membership. Petroleum imports not classified as "OPEC" on Table 3.3c are included on this table. • 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. • Includes imports for the Strategic Petroleum Reserve, which began in October 1977. • Totals may not equal sum of components due to independent rounding. • U.S. geographic

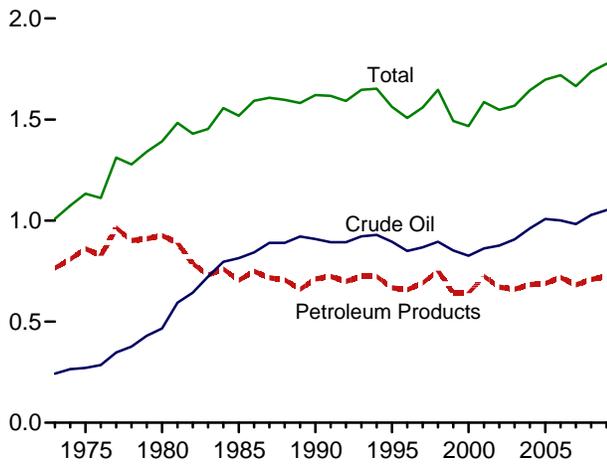
coverage is the 50 States and the District of Columbia.

Web Pages: • For all available data beginning in 1973, see <http://www.eia.doe.gov/emeu/mer/petro.html>. • For related information, see http://www.eia.doe.gov/oil_gas/petroleum/info_glance/petroleum.html.

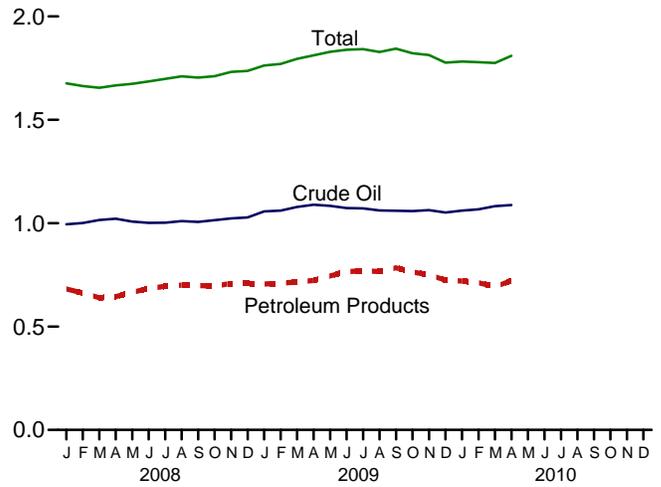
Sources: • **1973-1975:** Bureau of Mines, Mineral Industry Surveys, *Petroleum Statement, Annual*, annual reports. • **1976-1980:** U.S. Energy Information Administration (EIA), Energy Data Reports, *Petroleum Statement, Annual*, annual reports. • **1981-2008:** EIA, *Petroleum Supply Annual*, annual reports. • **2009 and 2010:** EIA, *Petroleum Supply Monthly*, monthly reports.

Figure 3.4 Petroleum Stocks
(Billion Barrels, Except as Noted)

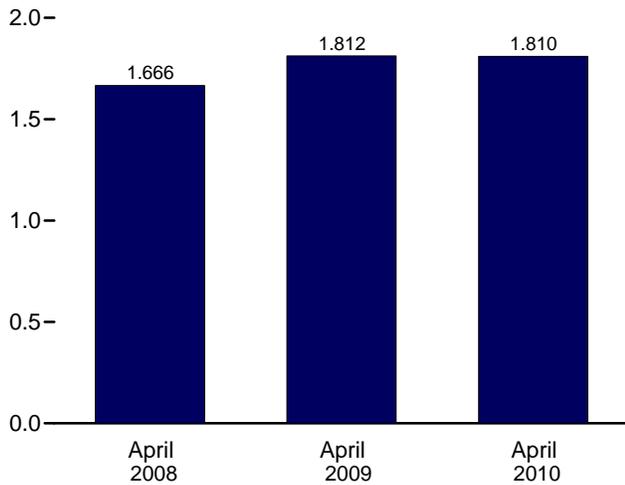
Overview, 1973-2009



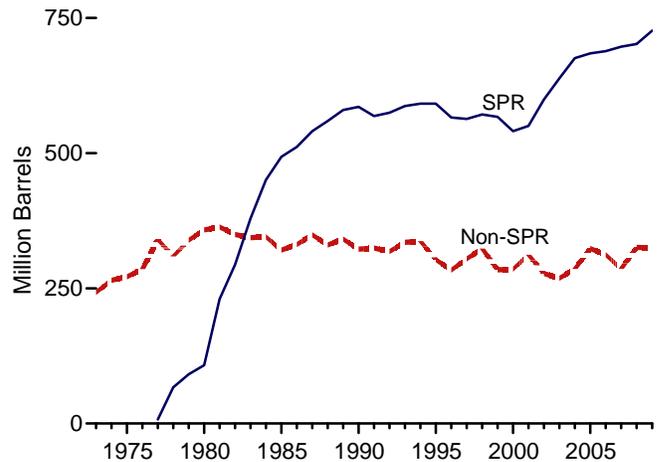
Overview, Monthly



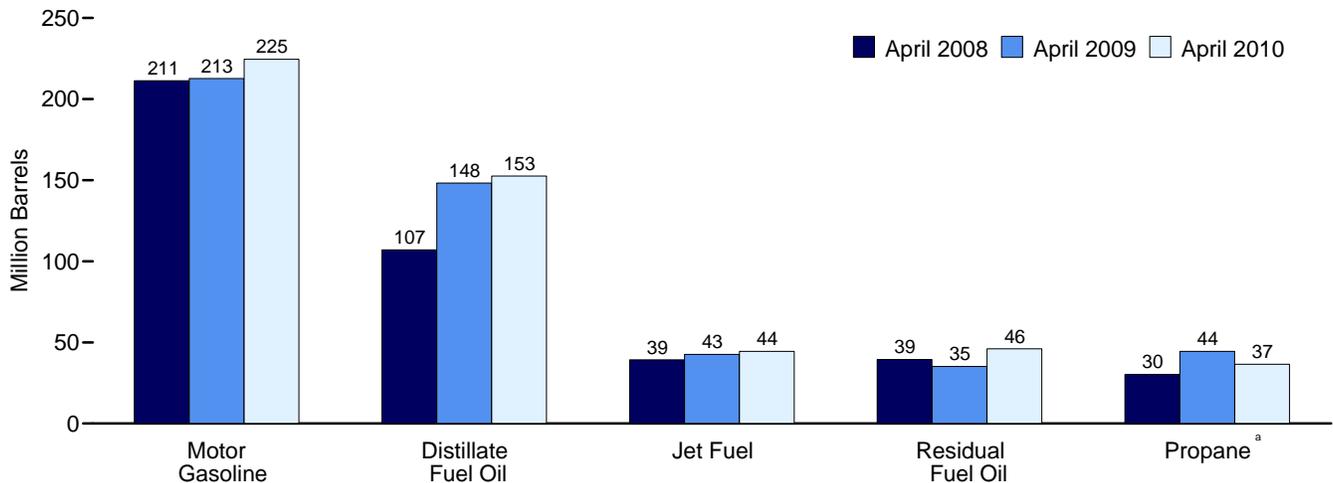
Total Stocks (Crude Oil and Petroleum Products)



SPR and Non-SPR Crude Oil Stocks, 1973-2009



Selected Products



^a Includes propylene.

Notes: • SPR= Strategic Petroleum Reserve. • Stocks are at end of period.

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

Source: Table 3.4.

Table 3.4 Petroleum Stocks
(Million Barrels)

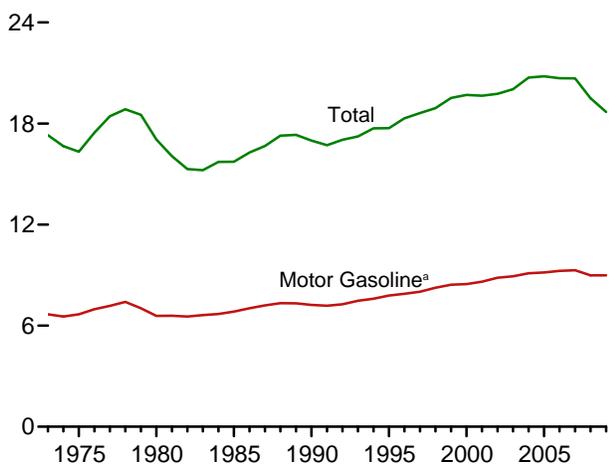
	Crude Oil ^a			Distillate Fuel Oil ^{f,g}	Jet Fuel ^h	LPG ^b		Motor Gasoline ^{f,j}	Residual Fuel Oil ^f	Other ^k	Total ^f
	SPR ^c	Non-SPR ^{d,e,f}	Total ^{e,f}			Propane ^{f,i}	Total ^f				
1973 Year	--	242	242	196	29	65	99	209	53	179	1,008
1975 Year	--	271	271	209	30	82	125	235	74	188	1,133
1980 Year	108	358	466	205	42	65	120	261	92	205	1,392
1985 Year	493	321	814	144	40	39	74	223	50	174	1,519
1990 Year	586	323	908	132	52	49	98	220	49	162	1,621
1995 Year	592	303	895	130	40	43	93	202	37	165	1,563
1996 Year	566	284	850	127	40	43	86	195	46	164	1,507
1997 Year	563	305	868	138	44	44	89	210	40	169	1,560
1998 Year	571	324	895	156	45	65	115	216	45	176	1,647
1999 Year	567	284	852	125	41	43	89	193	36	157	1,493
2000 Year	541	286	826	118	45	41	83	196	36	164	1,468
2001 Year	550	312	862	145	42	66	121	210	41	166	1,586
2002 Year	599	278	877	134	39	53	106	209	31	152	1,548
2003 Year	638	269	907	137	39	50	94	207	38	147	1,568
2004 Year	676	286	961	126	40	55	104	218	42	153	1,645
2005 Year	685	324	1,008	136	42	57	109	208	37	157	1,698
2006 Year	689	312	1,001	144	39	62	113	212	42	169	1,720
2007 Year	697	286	983	134	39	52	96	218	39	156	1,665
2008 January	698	296	995	131	41	39	77	233	39	160	1,677
February	699	302	1,001	118	40	29	65	235	39	165	1,664
March	700	315	1,015	108	39	26	64	222	40	167	1,655
April	701	320	1,021	107	39	30	77	211	39	171	1,666
May	704	304	1,008	114	40	38	92	208	40	172	1,674
June	706	296	1,002	122	40	43	103	211	41	168	1,686
July	707	295	1,002	131	41	48	113	207	37	167	1,698
August	707	303	1,010	133	41	54	127	196	39	165	1,711
September	702	304	1,006	128	38	59	137	190	39	167	1,704
October	702	313	1,014	128	38	60	133	195	39	163	1,711
November	702	322	1,023	136	38	61	126	204	39	166	1,732
December	702	326	1,028	146	38	55	113	214	36	162	1,737
2009 January	704	353	1,057	143	41	46	96	218	35	173	1,762
February	706	355	1,060	146	43	40	89	216	39	177	1,770
March	713	366	1,079	144	42	40	90	217	39	185	1,795
April	719	370	1,089	148	43	44	99	213	35	185	1,812
May	722	362	1,084	155	43	55	116	206	39	187	1,829
June	724	349	1,073	160	44	65	132	214	37	179	1,839
July	724	347	1,071	161	46	70	143	210	35	175	1,842
August	724	337	1,061	165	45	71	152	206	33	166	1,828
September	725	335	1,060	172	46	75	156	212	35	164	1,845
October	725	333	1,058	170	43	73	146	209	35	161	1,822
November	726	337	1,063	171	42	64	124	218	37	158	1,814
December	727	325	1,052	165	43	51	103	223	38	153	1,776
2010 January	727	334	1,061	163	44	35	80	232	40	162	1,781
February	727	R 340	R 1,067	R 155	R 44	R 28	R 70	R 233	R 41	169	R 1,779
March	E 727	E 356	E 1,082	E 146	E 42	E 28	RF 73	E 223	E 41	RE 169	E 1,775
April	E 727	E 361	E 1,087	E 153	E 44	E 37	F 86	E 225	E 46	E 169	E 1,810

^a Includes lease condensate.
^b Liquefied petroleum gases.
^c "SPR" is the Strategic Petroleum Reserve, which began in October 1977. Crude oil stocks in the SPR include non-U.S. stocks held under foreign or commercial storage agreements.
^d All crude oil stocks other than those in "SPR."
^e Beginning in 1981, includes stocks of Alaskan crude oil in transit. See Note 5, "Stocks of Alaskan Crude Oil," at end of section.
^f See Note 4, "Petroleum New Stock Basis," at end of section.
^g Excludes stocks in the Northeast Heating Oil Reserve. Beginning in 2009, includes renewable diesel fuel (including biodiesel) blended into distillate fuel oil.
^h Through 2004, includes kerosene-type and naphtha-type jet fuel. Beginning in 2005, includes kerosene-type jet fuel only; naphtha-type jet fuel is included in "Other."
ⁱ Includes propylene.
^j Includes finished motor gasoline, motor gasoline blending components, and gasohol; excludes oxygenates.
^k Asphalt and road oil, aviation gasoline, aviation gasoline blending

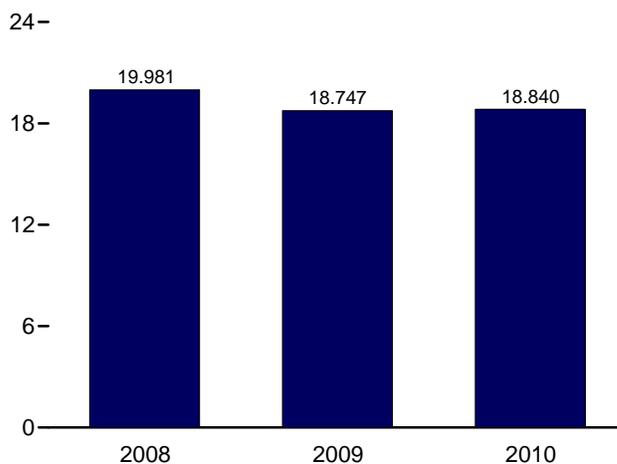
components, kerosene, lubricants, pentanes plus, petrochemical feedstocks, petroleum coke, special naphthas, unfinished oils, waxes, miscellaneous products, oxygenates, renewable fuels, and other hydrocarbons. Beginning in 2005, also includes naphtha-type jet fuel.
R=Revised. E=Estimate. F=Forecast. --=Not applicable.
Notes: • Stocks are at end of period. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.
Web Pages: • For all available data beginning in 1973, see <http://www.eia.doe.gov/emeu/mer/petro.html>. • For related information, see http://www.eia.doe.gov/oil_gas/petroleum/info_glance/petroleum.html.
Sources: • 1973-1975: Bureau of Mines, Mineral Industry Surveys, *Petroleum Statement, Annual*, annual reports. • 1976-1980: U.S. Energy Information Administration (EIA), Energy Data Reports, *Petroleum Statement, Annual*, annual reports. • 1981-2008: *Petroleum Supply Annual*, annual reports. • 2009 and 2010: EIA, *Petroleum Supply Monthly*, monthly reports; and, for the current two months, *Weekly Petroleum Status Report* data system, Short-Term Integrated Forecasting System, and *Monthly Energy Review* data system calculations.

Figure 3.5 Petroleum Products Supplied by Type
(Million Barrels per Day)

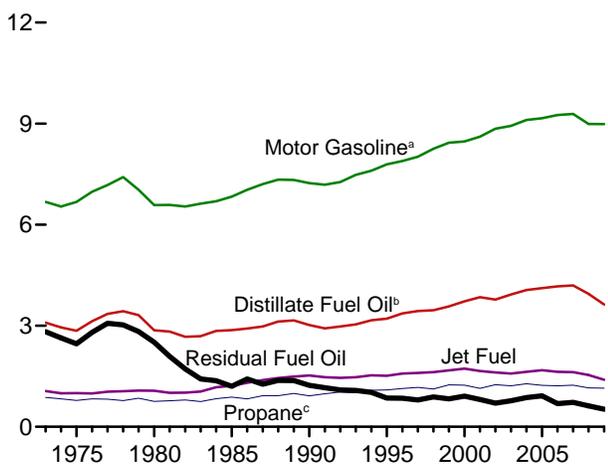
Total and Motor Gasoline, 1973-2009



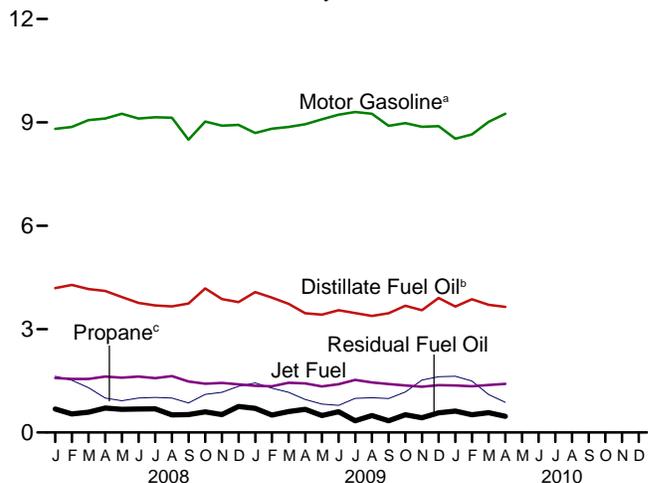
Total, January-April



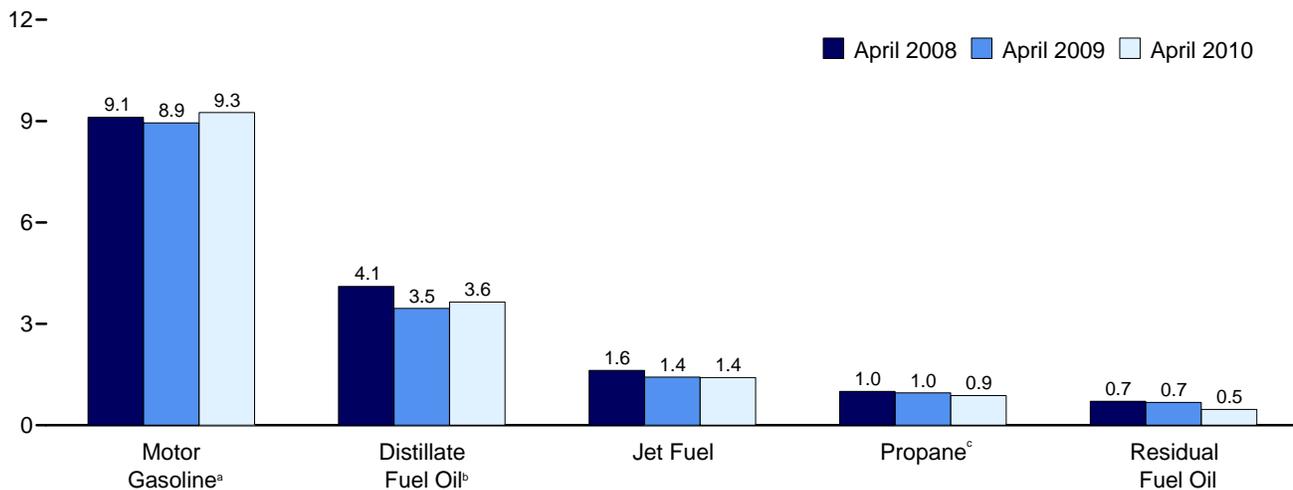
Selected Products, 1973-2009



Selected Products, Monthly



Selected Products



^a Beginning in 1993, includes fuel ethanol blended into motor gasoline.
^b Beginning in 2009, includes renewable diesel fuel (including biodiesel) blended into distillate fuel oil.
^c Includes propylene.

Note: SPR= Strategic Petroleum Reserve.
 Web Page: <http://www.eia.doe.gov/emeu/mer/petro.html>.
 Source: Table 3.5.

Table 3.5 Petroleum Products Supplied by Type
(Thousand Barrels per Day)

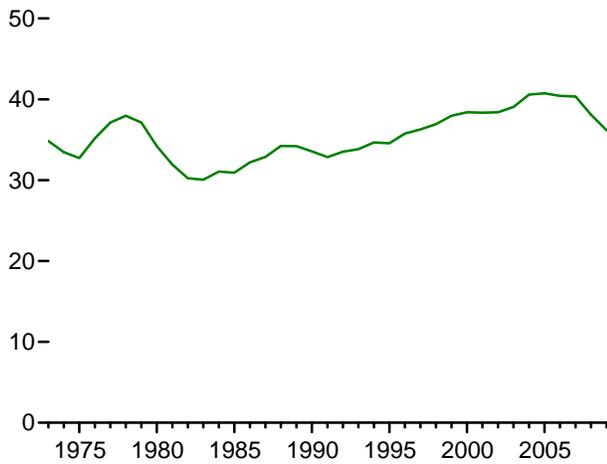
	Asphalt and Road Oil	Aviation Gasoline	Distillate Fuel Oil ^b	Jet Fuel ^c	Kerosene	LPG ^a		Lubricants	Motor Gasoline ^e	Petroleum Coke	Residual Fuel Oil	Other ^f	Total
						Propane ^d	Total						
1973 Average	522	45	3,092	1,059	216	872	1,449	162	6,674	261	2,822	1,005	17,308
1975 Average	419	39	2,851	1,001	159	783	1,333	137	6,675	247	2,462	1,001	16,322
1980 Average	396	35	2,866	1,068	158	754	1,469	159	6,579	237	2,508	1,581	17,056
1985 Average	425	27	2,868	1,218	114	883	1,599	145	6,831	264	1,202	1,032	15,726
1990 Average	483	24	3,021	1,522	43	917	1,556	164	7,235	339	1,229	1,373	16,988
1995 Average	486	21	3,207	1,514	54	1,096	1,899	156	7,789	365	852	1,381	17,725
1996 Average	484	20	3,365	1,578	62	1,136	2,012	151	7,891	379	848	1,518	18,309
1997 Average	505	22	3,435	1,599	66	1,170	2,038	160	8,017	377	797	1,605	18,620
1998 Average	521	19	3,461	1,622	78	1,120	1,952	168	8,253	447	887	1,508	18,917
1999 Average	547	21	3,572	1,673	73	1,246	2,195	169	8,431	477	830	1,532	19,519
2000 Average	525	20	3,722	1,725	67	1,235	2,231	166	8,472	406	909	1,458	19,701
2001 Average	519	19	3,847	1,655	72	1,142	2,044	153	8,610	437	811	1,481	19,649
2002 Average	512	18	3,776	1,614	43	1,248	2,163	151	8,848	463	700	1,474	19,761
2003 Average	503	16	3,927	1,578	55	1,215	2,074	140	8,935	455	772	1,579	20,034
2004 Average	537	17	4,058	1,630	64	1,276	2,132	141	9,105	524	865	1,657	20,731
2005 Average	546	19	4,118	1,679	70	1,229	2,030	141	9,159	515	920	1,605	20,802
2006 Average	521	18	4,169	1,633	54	1,215	2,052	137	9,253	522	689	1,640	20,687
2007 Average	494	17	4,196	1,622	32	1,235	2,085	142	9,286	490	723	1,593	20,680
2008 January	354	13	4,192	1,581	14	1,630	2,399	137	8,810	501	683	1,564	20,247
February	301	12	4,281	1,553	29	1,514	2,320	131	8,866	425	539	1,570	20,029
March	295	16	4,161	1,552	25	1,301	2,166	144	9,066	473	589	1,345	19,831
April	360	17	4,106	1,622	1	1,001	1,860	145	9,112	482	707	1,403	19,815
May	461	19	3,931	1,590	7	919	1,845	143	9,251	456	673	1,422	19,798
June	570	16	3,763	1,623	5	998	1,914	138	9,110	451	683	1,405	19,678
July	556	16	3,688	1,574	-1	1,017	1,939	139	9,150	538	684	1,274	19,557
August	517	18	3,659	1,639	3	1,000	1,915	157	9,134	471	511	1,249	19,272
September	531	16	3,740	1,478	12	857	1,429	97	8,497	353	520	1,167	17,839
October	465	12	4,182	1,417	10	1,106	1,832	146	9,024	466	597	1,547	19,698
November	314	15	3,872	1,440	20	1,167	1,899	91	8,904	438	521	1,540	19,052
December	271	14	3,783	1,395	47	1,343	1,931	104	8,927	503	753	1,414	19,142
Average	417	15	3,945	1,539	14	1,154	1,954	131	8,989	464	622	1,408	19,498
2009 January	230	17	4,075	1,357	36	1,438	2,166	111	8,690	430	700	1,313	19,125
February	271	7	3,915	1,341	39	1,286	2,028	99	8,816	422	506	1,263	18,706
March	337	11	3,732	1,441	19	1,165	2,019	112	8,866	420	605	1,110	18,672
April	262	18	3,460	1,424	14	958	1,872	131	8,948	500	673	1,169	18,471
May	394	13	3,421	1,338	14	823	1,751	102	9,087	503	490	1,061	18,176
June	524	18	3,550	1,403	11	785	1,662	137	9,224	536	600	1,097	18,762
July	412	19	3,464	1,527	1	989	1,858	114	9,300	371	338	1,368	18,771
August	534	16	3,383	1,450	6	1,011	1,889	141	9,250	409	493	1,160	18,732
September	464	19	3,459	1,404	-1	987	1,875	123	8,897	472	341	1,309	18,362
October	368	11	3,677	1,364	17	1,173	2,143	123	8,978	349	516	1,180	18,727
November	285	9	3,549	1,326	23	1,520	2,485	109	8,871	375	425	1,093	18,550
December	204	15	3,902	1,372	25	1,619	2,489	123	8,888	351	571	1,223	19,163
Average	357	14	3,631	1,396	17	1,146	2,020	119	8,986	428	522	1,195	18,686
2010 January	213	11	3,656	1,365	16	1,630	2,545	106	8,525	266	622	1,204	18,528
February	R 249	R 10	R 3,866	R 1,342	R 35	R 1,495	R 2,450	R 125	R 8,651	R 334	R 513	R 1,285	R 18,860
March	RF 287	F 15	E 3,707	E 1,376	RF 28	E 1,101	RF 2,135	RF 128	E 9,013	RF 412	E 573	RE 1,434	E 19,109
April	F 334	F 18	E 3,644	E 1,409	F 4	E 877	F 1,915	F 130	E 9,252	F 424	E 467	E 1,268	E 18,865
4-Month Average	E 271	E 14	E 3,715	E 1,373	E 20	E 1,274	E 2,259	E 122	E 8,862	E 359	E 545	E 1,299	E 18,840
2009 4-Month Average	275	13	3,795	1,392	27	1,212	2,022	114	8,829	443	624	1,213	18,747
2008 4-Month Average	328	15	4,184	1,577	17	1,362	2,187	139	8,964	471	630	1,469	19,981

^a Liquefied petroleum gases.
^b Beginning in 2009, includes renewable diesel fuel (including biodiesel) blended into distillate fuel oil.
^c Through 2004, includes kerosene-type and naphtha-type jet fuel. Beginning in 2005, includes kerosene-type jet fuel only; naphtha-type jet fuel is included in "Other."
^d Includes propylene.
^e Finished motor gasoline. Beginning in 1993, also includes fuel ethanol blended into motor gasoline.
^f Pentanes plus, petrochemical feedstocks, special naphthas, still gas (refinery gas), waxes, and miscellaneous products. Beginning in 1981, also includes negative barrels per day of distillate and residual fuel oil reclassified as unfinished oils, and other products (from both primary and secondary supply) reclassified as gasoline blending components. Beginning in 1983, also includes crude oil burned as fuel. Beginning in 2005, also includes naphtha-type jet fuel.
R=Revised. E=Estimate. F=Forecast.

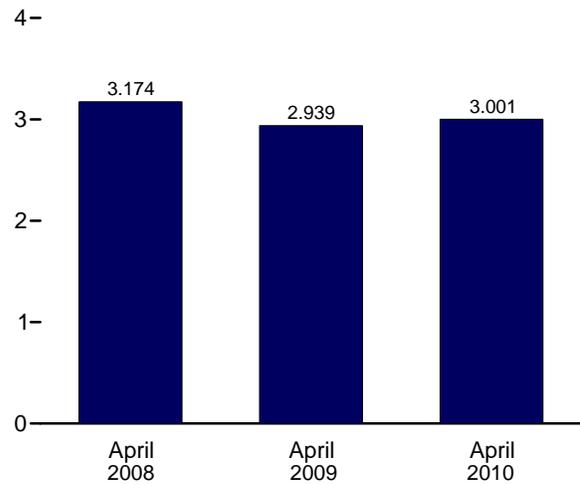
Notes: • Petroleum products supplied is an approximation of petroleum consumption and is synonymous with the term "petroleum consumption" in Tables 3.7a-c and 3.8a-c. • See Note 7, "Petroleum Products Supplied and Petroleum Consumption," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.
Web Pages: • For all available data beginning in 1973, see <http://www.eia.doe.gov/emeu/mer/petro.html>. • For related information, see http://www.eia.doe.gov/oil_gas/petroleum/info_glance/petroleum.html.
Sources: • **1973-1975:** Bureau of Mines, Mineral Industry Surveys, *Petroleum Statement, Annual*, annual reports. • **1976-1980:** U.S. Energy Information Administration (EIA), Energy Data Reports, *Petroleum Statement, Annual*, annual reports. • **1981-2008:** EIA, *Petroleum Supply Annual*, annual reports. • **2009 and 2010:** EIA, *Petroleum Supply Monthly*, monthly reports; and, for the current two months, *Weekly Petroleum Status Report* data system, Short-Term Integrated Forecasting System, and *Monthly Energy Review* data system calculations.

Figure 3.6 Heat Content of Petroleum Products Supplied by Type
(Quadrillion Btu)

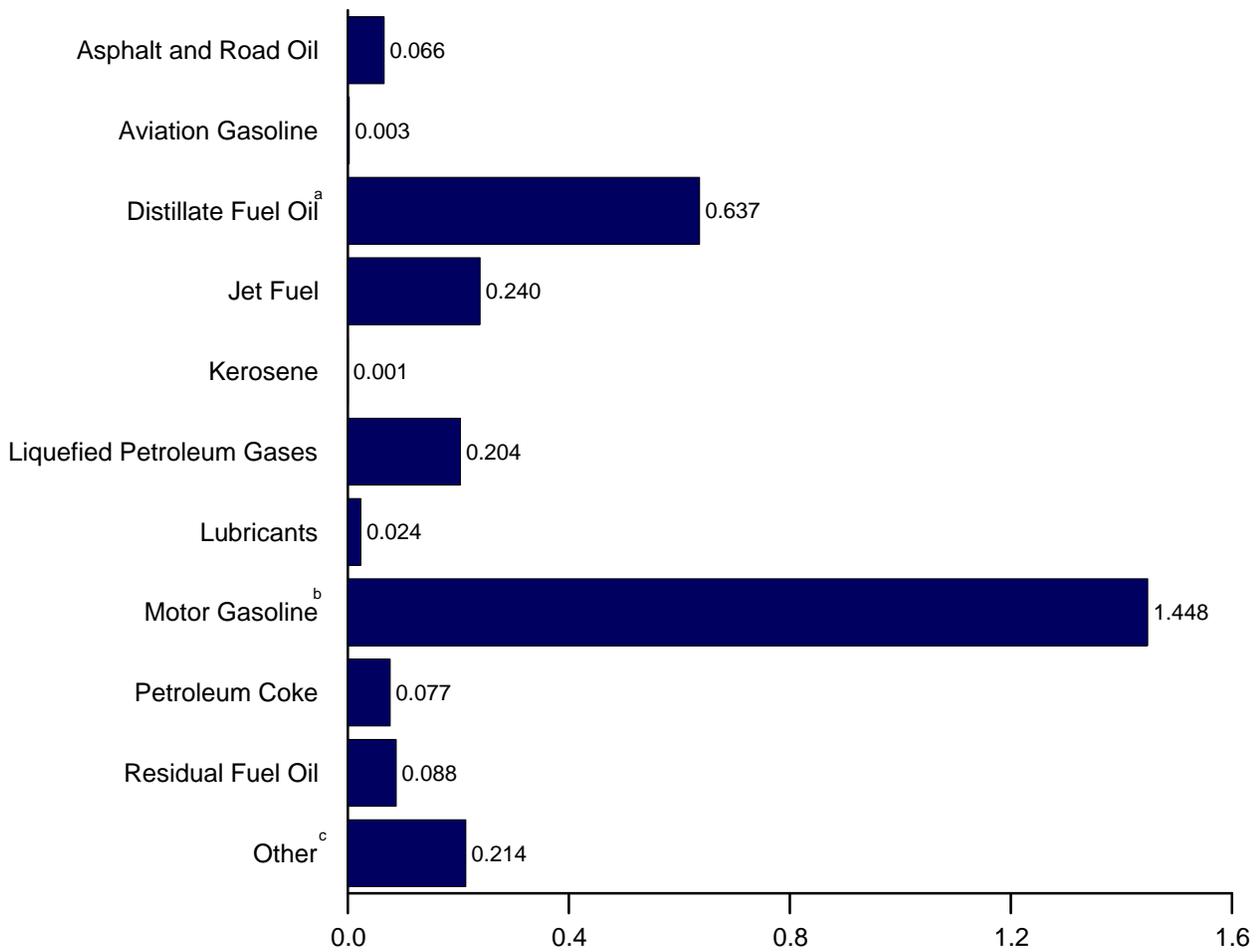
Total, 1973-2009



Total



By Product, April 2010



^a Includes renewable diesel fuel (including biodiesel) blended into distillate fuel oil.

^b Includes fuel ethanol blended into motor gasoline.

^c All petroleum products not shown above.

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

Source: Table 3.6.

Table 3.6 Heat Content of Petroleum Products Supplied by Type
(Trillion Btu)

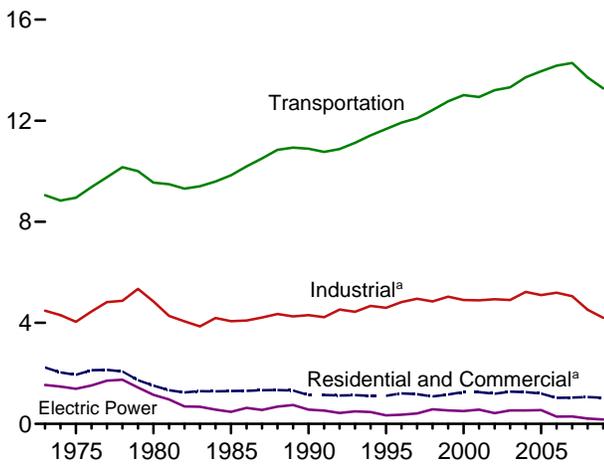
	Asphalt and Road Oil	Aviation Gasoline	Distillate Fuel Oil ^b	Jet Fuel ^c	Kero-sene	LPG ^a		Lubri-cants	Motor Gasoline ^e	Petroleum Coke	Residual Fuel Oil	Other ^f	Total
						Propane ^d	Total						
1973 Total	1,264	83	6,575	2,167	447	1,221	1,981	359	12,797	573	6,477	2,117	34,840
1975 Total	1,014	71	6,061	2,047	329	1,097	1,807	304	12,798	542	5,649	2,107	32,731
1980 Total	962	64	6,110	2,190	329	1,059	1,976	354	12,648	522	5,772	3,275	34,202
1985 Total	1,029	50	6,098	2,497	236	1,236	2,103	322	13,098	582	2,759	2,149	30,922
1990 Total	1,170	45	6,422	3,129	88	1,284	2,059	362	13,872	745	2,820	2,840	33,553
1995 Total	1,178	40	6,818	3,132	112	1,534	2,512	346	14,825	802	1,955	2,834	34,553
1996 Total	1,176	37	7,175	3,274	128	1,594	2,660	335	15,064	837	1,952	3,119	35,757
1997 Total	1,224	40	7,304	3,308	136	1,638	2,690	354	15,254	829	1,828	3,298	36,266
1998 Total	1,263	35	7,359	3,357	162	1,568	2,575	371	15,701	982	2,036	3,093	36,934
1999 Total	1,324	39	7,595	3,462	151	1,745	2,897	375	16,036	1,048	1,905	3,128	37,960
2000 Total	1,276	36	7,935	3,580	140	1,734	2,945	369	16,155	895	2,091	2,981	38,404
2001 Total	1,257	35	8,179	3,426	150	1,598	2,697	338	16,373	961	1,861	3,056	38,333
2002 Total	1,240	34	8,028	3,340	90	1,747	2,852	334	16,819	1,018	1,605	3,041	38,401
2003 Total	1,220	30	8,349	3,265	113	1,701	2,747	309	16,981	1,000	1,772	3,260	39,047
2004 Total	1,304	31	8,652	3,383	133	1,791	2,824	313	17,379	1,156	1,990	3,429	40,594
2005 Total	1,323	35	8,755	3,475	144	1,721	2,682	312	17,444	1,133	2,111	3,320	40,735
2006 Total	1,261	33	8,864	3,379	111	1,701	2,701	303	17,622	1,148	1,581	3,416	40,420
2007 Total	1,197	32	8,921	3,358	67	1,729	2,733	313	17,689	1,077	1,659	3,308	40,353
2008													
January	73	2	757	278	2	194	268	26	1,425	93	133	294	3,351
February	58	2	723	255	5	168	242	23	1,342	74	98	278	3,101
March	61	2	751	273	4	155	242	27	1,467	88	115	252	3,282
April	72	3	717	276	(s)	115	201	26	1,426	87	133	232	3,174
May	95	3	710	279	1	109	206	27	1,496	85	131	243	3,277
June	114	2	658	276	1	115	207	25	1,426	81	129	233	3,152
July	114	2	666	277	(s)	121	216	26	1,480	101	133	221	3,237
August	106	3	661	288	(s)	119	214	30	1,478	88	100	223	3,190
September	106	2	654	251	2	99	154	18	1,330	64	98	178	2,857
October	96	2	755	249	2	132	204	27	1,460	87	116	262	3,260
November	63	2	677	245	3	134	205	17	1,394	79	98	269	3,052
December	56	2	683	245	8	160	215	20	1,444	94	147	254	3,168
Total	1,012	28	8,411	3,193	30	1,620	2,574	291	17,168	1,022	1,432	2,940	38,100
2009													
January	47	3	736	239	6	171	239	21	1,406	80	136	231	3,144
February	50	1	638	213	6	138	202	17	1,288	71	89	202	2,778
March	69	2	674	253	3	139	222	21	1,434	78	118	194	3,070
April	52	3	605	242	2	110	200	24	1,401	90	127	193	2,939
May	81	2	618	235	2	98	193	19	1,470	94	96	178	2,988
June	104	3	620	239	2	90	177	25	1,444	97	113	161	2,985
July	85	3	626	268	(s)	118	205	21	1,504	69	66	239	3,086
August	110	2	611	255	1	120	208	27	1,496	76	96	197	3,079
September	92	3	604	239	(s)	114	200	22	1,393	85	64	218	2,921
October	76	2	664	240	3	139	236	23	1,452	65	100	217	3,079
November	57	1	620	226	4	175	265	20	1,389	68	80	222	2,951
December	42	2	705	241	4	193	274	23	1,438	65	111	244	3,150
Total	866	26	7,720	2,889	35	1,604	2,620	264	17,115	940	1,197	2,496	36,169
2010													
January	44	2	660	240	3	194	280	20	1,379	50	121	247	3,046
February	R 46	R 1	R 631	R 213	R 5	R 161	R 244	R 21	R 1,264	R 56	R 90	R 228	R 2,800
March	RF 59	F 2	E 669	E 242	F 5	E 131	RF 235	RF 24	E 1,458	RF 77	E 112	RE 258	E 3,141
April	F 66	F 3	E 637	E 240	F 1	E 101	F 204	F 24	E 1,448	F 77	E 88	E 214	E 3,001
4-Month Total	E 216	E 8	E 2,597	E 934	E 14	E 586	E 963	E 89	E 5,549	E 260	E 411	E 948	E 11,989
2009 4-Month Total	219	8	2,653	947	18	558	862	83	5,529	320	471	820	11,930
2008 4-Month Total	263	9	2,949	1,082	12	632	952	102	5,660	343	479	1,056	12,908

^a Liquefied petroleum gases.
^b Beginning in 2009, includes renewable diesel fuel (including biodiesel) blended into distillate fuel oil.
^c Through 2004, includes kerosene-type and naphtha-type jet fuel. Beginning in 2005, includes kerosene-type jet fuel only; naphtha-type jet fuel is included in "Other."
^d Includes propylene.
^e Finished motor gasoline. Beginning in 1993, also includes fuel ethanol blended into motor gasoline.
^f Pentanes plus, petrochemical feedstocks, special naphthas, still gas (refinery gas), waxes, and miscellaneous products. Beginning in 1981, also includes negative barrels per day of distillate and residual fuel oil reclassified as unfinished oils, and other products (from both primary and secondary supply) reclassified as gasoline blending components. Beginning in 1983, also includes crude oil burned

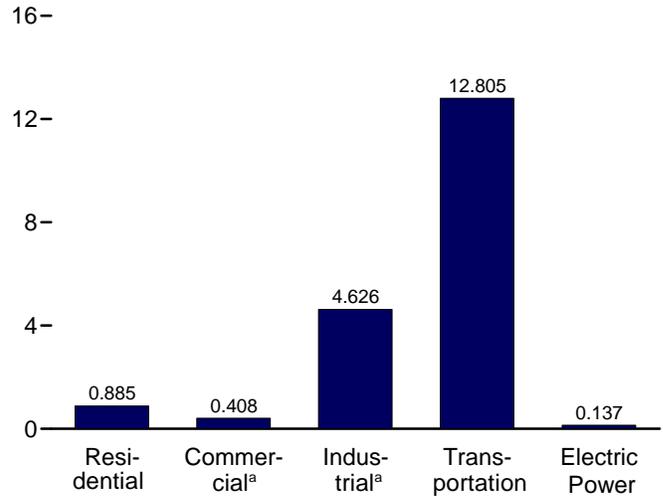
as fuel. Beginning in 2005, also includes naphtha-type jet fuel.
 R=Revised. E=Estimate. (s)=Less than +0.5 trillion Btu and greater than -0.5 trillion Btu. F=Forecast.
 Notes: • Petroleum products supplied is an approximation of petroleum consumption and is synonymous with the term "petroleum consumption" in Tables 3.7a-c and 3.8a-c. • See Note 7, "Petroleum Products Supplied and Petroleum Consumption," 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 Pages: • For all available data beginning in 1973, see <http://www.eia.doe.gov/emeu/mer/petro.html>. • For related information, see http://www.eia.doe.gov/oil_gas/petroleum/info_glance/petroleum.html.
 Sources: Tables 3.5, A1, and A3.

Figure 3.7 Petroleum Consumption by Sector
(Million Barrels per Day)

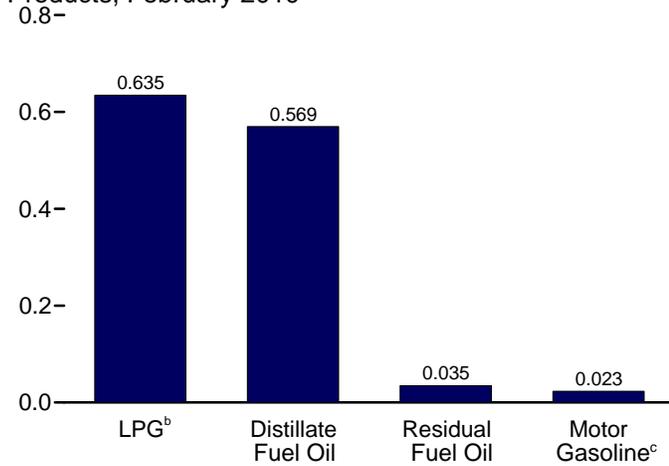
By Sector, 1973-2009



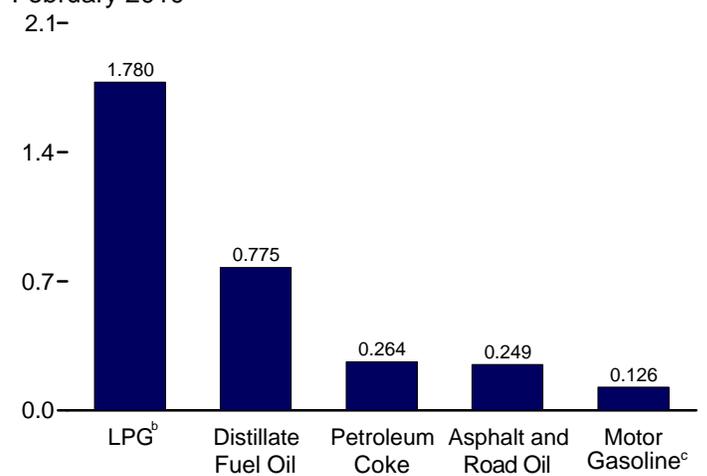
By Sector, February 2010



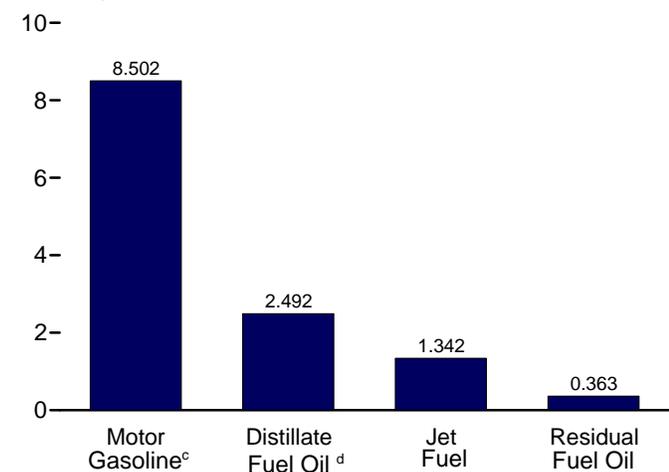
Residential and Commercial Sectors,^a Selected Products, February 2010



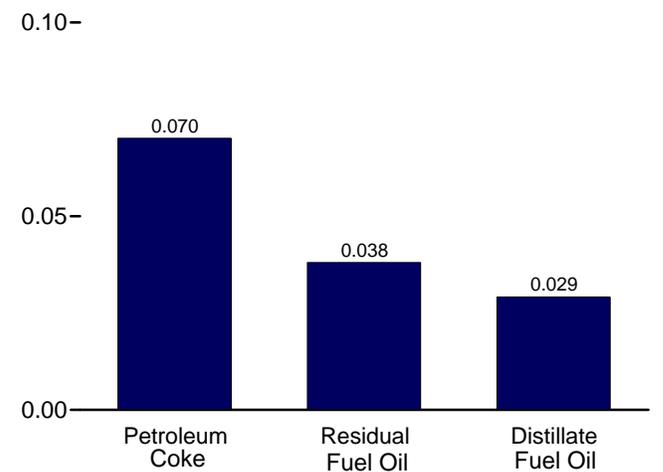
Industrial Sector,^a Selected Products, February 2010



Transportation Sector, Selected Products, February 2010



Electric Power Sector, February 2010



^a Includes combined-heat-and-power plants and a small number of electricity-only plants.

^b Liquefied petroleum gases.

^c Includes fuel ethanol blended into motor gasoline.

^d Includes renewable diesel fuel (including biodiesel) blended into distillate fuel oil.

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

Sources: Tables 3.7a–3.7c.

Table 3.7a Petroleum Consumption: Residential and Commercial Sectors
(Thousand Barrels per Day)

	Residential Sector				Commercial Sector ^a						
	Distillate Fuel Oil	Kero-sene	Liquefied Petroleum Gases	Total	Distillate Fuel Oil	Kero-sene	Liquefied Petroleum Gases	Motor Gasoline ^b	Petro-leum Coke	Residual Fuel Oil	Total
1973 Average	942	110	407	1,459	303	31	105	45	NA	290	774
1975 Average	850	78	365	1,293	276	24	92	46	NA	214	653
1980 Average	617	51	222	890	243	20	63	56	NA	245	626
1985 Average	514	77	224	815	297	16	68	50	NA	99	530
1990 Average	460	31	252	742	252	6	73	58	0	100	489
1995 Average	426	36	282	743	225	11	78	10	(s)	62	385
1996 Average	434	43	334	811	227	10	87	14	(s)	60	397
1997 Average	411	45	325	781	209	12	86	22	(s)	48	378
1998 Average	363	52	303	718	202	15	84	20	(s)	37	358
1999 Average	389	54	376	819	206	13	100	15	(s)	32	366
2000 Average	424	46	395	865	230	14	107	23	(s)	40	415
2001 Average	427	46	375	849	239	15	102	20	(s)	30	406
2002 Average	404	29	384	817	209	8	101	24	(s)	35	376
2003 Average	425	34	389	848	226	9	112	32	(s)	48	428
2004 Average	433	41	364	839	221	10	108	23	(s)	53	416
2005 Average	402	40	366	809	210	10	94	24	(s)	50	389
2006 Average	335	32	318	685	189	7	88	26	(s)	33	343
2007 Average	342	21	345	708	181	4	87	32	(s)	33	337
2008 January	516	10	483	1,009	287	2	138	23	(s)	53	503
February	530	21	467	1,018	294	4	134	24	(s)	54	510
March	376	18	436	830	209	4	125	24	(s)	38	400
April	293	1	375	668	163	(s)	107	24	(s)	30	324
May	207	5	372	584	115	1	106	25	0	21	268
June	228	4	386	618	127	1	110	24	0	23	285
July	216	-1	391	606	120	(s)	112	24	0	22	278
August	194	2	386	582	108	(s)	110	24	0	20	262
September	208	9	288	505	116	2	82	23	(s)	21	244
October	233	7	369	610	130	1	106	24	(s)	24	285
November	292	14	383	689	162	3	109	24	(s)	30	328
December	449	34	389	872	249	7	111	24	(s)	46	437
Average	311	10	394	715	173	2	113	24	(s)	32	343
2009 January	449	26	436	912	249	5	125	23	(s)	43	445
February	421	28	409	858	234	6	117	23	(s)	40	420
March	361	14	407	782	201	3	116	24	(s)	34	378
April	284	10	377	671	158	2	108	24	0	27	319
May	194	10	353	557	108	2	101	24	0	18	253
June	182	8	335	525	101	2	96	25	0	17	240
July	207	1	374	582	115	(s)	107	25	0	20	266
August	213	4	381	598	118	1	109	25	(s)	20	273
September	260	(s)	378	638	145	(s)	108	24	(s)	25	301
October	222	13	432	667	124	3	123	24	0	21	294
November	250	17	501	768	139	3	143	24	(s)	24	333
December	399	18	501	918	221	4	143	24	(s)	38	430
Average	286	12	407	706	159	2	116	24	(s)	27	329
2010 January	354	11	513	878	197	2	147	23	(s)	34	402
February	366	25	494	885	203	5	141	23	(s)	35	408
2-Month Average	360	18	504	881	200	4	144	23	(s)	34	405
2009 2-Month Average	436	27	423	886	242	5	121	23	(s)	41	433
2008 2-Month Average	523	15	476	1,013	290	3	136	24	(s)	53	506

^a Commercial sector fuel use, including that at commercial combined-heat-and-power (CHP) and commercial electricity-only plants.

^b Finished motor gasoline. Beginning in 1993, also includes fuel ethanol blended into motor gasoline.

R=Revised. NA=Not available. (s)=Less than +500 barrels per day and greater than -500 barrels per day.

Notes: • Data are estimates. • For total petroleum consumption by all sectors, see petroleum products supplied data in Table 3.5. Petroleum products supplied is

an approximation of petroleum consumption and is synonymous with the term "petroleum consumption" in Tables 3.7a-c and 3.8a-c. • See Note 7, "Petroleum Products Supplied and Petroleum Consumption," 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: See <http://www.eia.doe.gov/emeu/mer/petro.html> for all available data beginning in 1973.

Sources: See end of section.

Table 3.7b Petroleum Consumption: Industrial Sector
(Thousand Barrels per Day)

	Industrial Sector ^a									
	Asphalt and Road Oil	Distillate Fuel Oil	Kerosene	Liquefied Petroleum Gases	Lubricants	Motor Gasoline ^b	Petroleum Coke	Residual Fuel Oil	Other ^c	Total
1973 Average	522	691	75	902	88	133	254	809	1,005	4,479
1975 Average	419	630	58	844	68	116	246	658	1,001	4,038
1980 Average	396	621	87	1,172	82	82	234	586	1,581	4,842
1985 Average	425	526	21	1,285	75	114	261	326	1,032	4,065
1990 Average	483	541	6	1,215	84	97	325	179	1,373	4,304
1995 Average	486	532	7	1,527	80	105	328	147	1,381	4,594
1996 Average	484	557	9	1,580	78	105	343	146	1,518	4,819
1997 Average	505	566	9	1,617	82	111	331	127	1,605	4,953
1998 Average	521	570	11	1,553	86	105	390	100	1,508	4,844
1999 Average	547	558	6	1,709	87	80	426	90	1,532	5,035
2000 Average	525	563	8	1,720	86	79	361	105	1,458	4,903
2001 Average	519	611	11	1,557	79	155	390	89	1,481	4,892
2002 Average	512	566	7	1,668	78	163	383	83	1,474	4,934
2003 Average	503	534	12	1,561	72	171	375	96	1,579	4,903
2004 Average	537	570	14	1,646	73	195	423	108	1,657	5,222
2005 Average	546	594	19	1,549	72	187	404	123	1,605	5,100
2006 Average	521	594	14	1,627	71	198	425	104	1,640	5,193
2007 Average	494	595	6	1,637	73	161	412	84	1,593	5,056
2008 January	354	774	2	1,743	71	128	422	99	1,564	5,157
February	301	801	4	1,686	67	129	348	77	1,570	4,983
March	295	764	3	1,574	74	132	413	87	1,345	4,685
April	360	710	(s)	1,351	75	133	413	102	1,403	4,547
May	461	633	1	1,341	73	135	394	97	1,422	4,556
June	570	418	1	1,391	71	133	372	88	1,405	4,448
July	556	366	(s)	1,408	71	133	470	91	1,274	4,369
August	517	359	(s)	1,391	81	133	399	68	1,249	4,197
September	531	501	2	1,038	50	124	282	65	1,167	3,761
October	465	789	1	1,331	75	131	394	84	1,547	4,819
November	314	610	3	1,379	47	130	371	71	1,540	4,464
December	271	414	6	1,403	53	130	437	107	1,414	4,236
Average	417	594	2	1,420	67	131	394	86	1,408	4,518
2009 January	230	885	5	1,574	57	127	364	91	1,313	4,645
February	271	743	5	1,473	51	128	355	72	1,263	4,362
March	337	617	3	1,467	58	129	344	87	1,110	4,151
April	262	428	2	1,360	67	130	431	99	1,169	3,950
May	394	447	2	1,272	53	132	436	75	1,061	3,873
June	524	485	1	1,208	71	134	467	85	1,097	4,072
July	412	381	(s)	1,350	59	135	302	43	1,368	4,050
August	534	306	1	1,373	73	135	341	66	1,160	3,988
September	464	406	(s)	1,363	63	130	403	47	1,309	4,185
October	368	603	2	1,557	63	131	308	73	1,180	4,286
November	285	576	3	1,806	56	129	332	62	1,093	4,342
December	204	691	3	1,808	64	129	295	85	1,223	4,503
Average	357	547	2	1,468	61	131	364	74	1,195	4,200
2010 January	213	684	2	1,849	54	124	197	86	1,204	4,415
February	249	775	5	1,780	64	126	264	78	1,285	4,626
2-Month Average	230	727	3	1,816	59	125	229	82	1,243	4,515
2009 2-Month Average	249	818	5	1,526	54	127	360	82	1,289	4,511
2008 2-Month Average	328	787	3	1,715	69	129	386	88	1,567	5,073

^a Industrial sector fuel use, including that at industrial combined-heat-and-power (CHP) and industrial electricity-only plants.

^b Finished motor gasoline. Beginning in 1993, also includes fuel ethanol blended into motor gasoline.

^c Pentanes plus, petrochemical feedstocks, special naphthas, still gas (refinery gas), waxes, and miscellaneous products. Beginning in 1981, also includes negative barrels per day of distillate and residual fuel oil reclassified as unfinished oils, and other products (from both primary and secondary supply) reclassified as gasoline blending components. Beginning in 1983, also includes crude oil burned as fuel. Beginning in 2005, also includes naphtha-type jet fuel.

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

per day.

Notes: • Data are estimates. • For total petroleum consumption by all sectors, see petroleum products supplied data in Table 3.5. Petroleum products supplied is an approximation of petroleum consumption and is synonymous with the term "petroleum consumption" in Tables 3.7a-c and 3.8a-c. • See Note 7, "Petroleum Products Supplied and Petroleum Consumption," 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: See <http://www.eia.doe.gov/emeu/mer/petro.html> for all available data beginning in 1973.

Sources: See end of section.

Table 3.7c Petroleum Consumption: Transportation and Electric Power Sectors
(Thousand Barrels per Day)

	Transportation Sector								Electric Power Sector ^a			
	Aviation Gasoline	Distillate Fuel Oil ^b	Jet Fuel ^c	Liquefied Petroleum Gases	Lubricants	Motor Gasoline ^d	Residual Fuel Oil	Total	Distillate Fuel Oil ^e	Petroleum Coke	Residual Fuel Oil ^f	Total
1973 Average	45	1,045	1,042	35	74	6,496	317	9,054	129	7	1,406	1,542
1975 Average	39	998	992	31	70	6,512	310	8,951	107	1	1,280	1,388
1980 Average	35	1,311	1,062	13	77	6,441	608	9,546	79	2	1,069	1,151
1985 Average	27	1,491	1,218	21	71	6,667	342	9,838	40	3	435	478
1990 Average	24	1,722	1,522	16	80	7,080	443	10,888	45	14	507	566
1995 Average	21	1,973	1,514	13	76	7,674	397	11,668	51	37	247	334
1996 Average	20	2,096	1,578	11	73	7,772	370	11,921	51	36	273	360
1997 Average	22	2,198	1,599	10	78	7,883	310	12,099	52	46	311	410
1998 Average	19	2,263	1,622	13	81	8,128	294	12,420	64	56	456	576
1999 Average	21	2,352	1,673	10	82	8,336	290	12,765	66	51	418	535
2000 Average	20	2,422	1,725	8	81	8,370	386	13,012	82	45	378	505
2001 Average	19	2,489	1,655	10	74	8,435	255	12,938	80	47	437	564
2002 Average	18	2,536	1,614	10	73	8,662	295	13,208	60	80	287	427
2003 Average	16	2,665	1,578	12	68	8,733	249	13,321	76	79	379	534
2004 Average	17	2,783	1,630	14	69	8,887	321	13,720	52	101	382	535
2005 Average	19	2,858	1,679	20	68	8,948	365	13,957	54	111	382	547
2006 Average	18	3,017	1,633	20	67	9,029	395	14,178	35	97	157	289
2007 Average	17	3,037	1,622	16	69	9,093	433	14,287	42	78	173	293
2008 January	13	2,564	1,581	34	67	8,658	426	13,343	51	78	105	235
February	12	2,616	1,553	33	64	8,713	318	13,309	41	77	91	209
March	16	2,783	1,552	31	70	8,910	389	13,750	30	60	75	165
April	17	2,908	1,622	27	71	8,955	488	14,088	31	68	88	187
May	19	2,945	1,590	26	69	9,092	465	14,206	30	62	91	183
June	16	2,945	1,623	27	67	8,953	414	14,046	45	79	158	281
July	16	2,955	1,574	28	67	8,992	445	14,078	32	68	125	226
August	18	2,971	1,639	27	76	8,977	318	14,026	28	72	106	205
September	16	2,886	1,478	21	47	8,351	302	13,100	29	70	131	230
October	12	3,005	1,417	26	71	8,869	412	13,812	25	72	76	173
November	15	2,780	1,440	27	44	8,750	332	13,388	28	67	88	183
December	14	2,629	1,395	28	50	8,774	480	13,369	43	66	121	229
Average	15	2,833	1,539	28	64	8,834	400	13,712	34	70	104	209
2009 January	17	2,434	1,357	31	54	8,540	376	12,809	58	66	190	314
February	7	2,477	1,341	29	48	8,664	309	12,876	39	67	84	191
March	11	2,514	1,441	29	55	8,713	419	13,182	39	76	64	180
April	18	2,564	1,424	27	64	8,793	491	13,380	26	69	56	151
May	13	2,639	1,338	25	50	8,931	325	13,321	33	67	72	171
June	18	2,750	1,403	24	67	9,065	418	13,744	32	69	80	181
July	19	2,733	1,527	27	55	9,140	191	13,692	29	69	83	181
August	16	2,714	1,450	27	69	9,091	309	13,676	31	67	98	197
September	19	2,622	1,404	27	60	8,744	207	13,082	25	68	63	157
October	11	2,700	1,364	31	60	8,823	353	13,342	28	41	69	138
November	9	2,558	1,326	36	53	8,719	297	12,997	26	42	42	110
December	15	2,558	1,372	36	60	8,735	407	13,183	32	55	41	129
Average	14	2,606	1,396	29	58	8,831	342	13,277	33	63	79	175
2010 January	11	2,340	1,365	37	51	8,378	410	12,591	81	68	92	241
February	10	2,492	1,342	35	61	8,502	363	12,805	29	70	38	137
2-Month Average	10	2,412	1,354	36	56	8,437	388	12,693	56	69	67	192
2009 2-Month Average	12	2,454	1,349	30	51	8,599	344	12,841	49	66	140	255
2008 2-Month Average	13	2,589	1,567	34	65	8,685	374	13,327	46	78	98	222

^a Electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public. Through 1988, data are for electric utilities only; beginning in 1989, data are for electric utilities and independent power producers.

^b Beginning in 2009, includes renewable diesel fuel (including biodiesel) blended into distillate fuel oil.

^c Through 2004, includes kerosene-type and naphtha-type jet fuel. Beginning in 2005, includes kerosene-type jet fuel only; naphtha-type jet fuel is included in "Industrial Sector, Other" on Table 3.7b.

^d Finished motor gasoline. Beginning in 1993, also includes fuel ethanol blended into motor gasoline.

^e Fuel oil nos. 1, 2, and 4. Through 2000, electric utility data also include small amounts of kerosene and jet fuel.

^f Fuel oil nos. 5 and 6. Through 2000, electric utility data also include a small amount of fuel oil no. 4.

R=Revised.

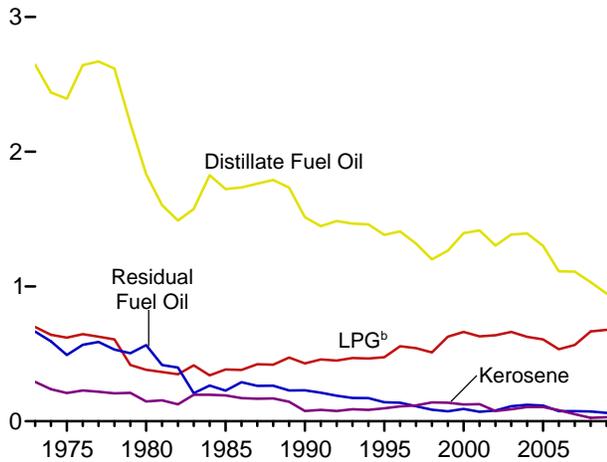
Notes: • Transportation sector data are estimates. • For total petroleum consumption by all sectors, see petroleum products supplied data in Table 3.5. Petroleum products supplied is an approximation of petroleum consumption and is synonymous with the term "petroleum consumption" in Tables 3.7a-c and 3.8a-c. • See Note 7, "Petroleum Products Supplied and Petroleum Consumption," 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: See <http://www.eia.doe.gov/emeu/mer/petro.html> for all available data beginning in 1973.

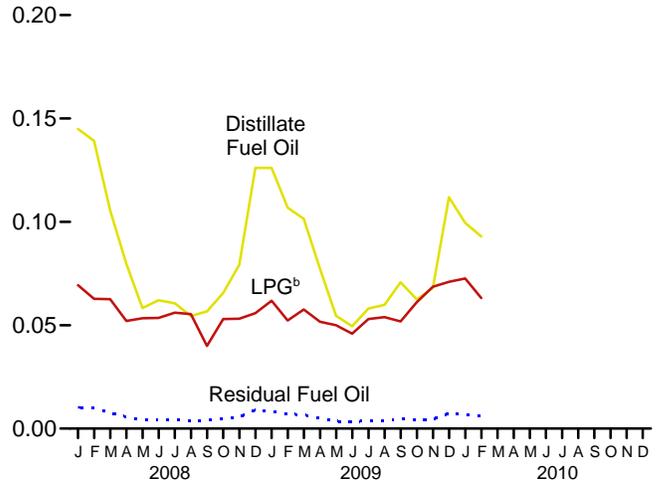
Sources: See end of section.

Figure 3.8 Heat Content of Petroleum Consumption by Sector, Selected Products
(Quadrillion Btu)

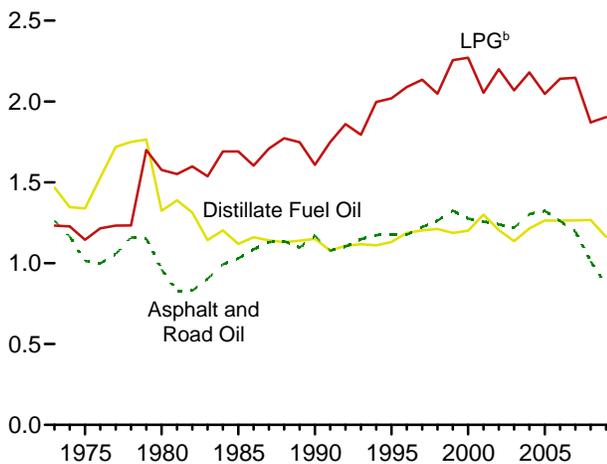
Residential and Commercial Sectors,^a 1973-2009



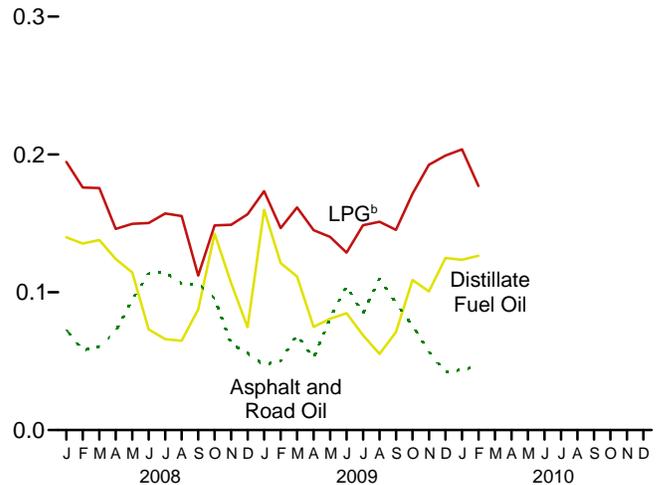
Residential and Commercial Sectors,^a Monthly



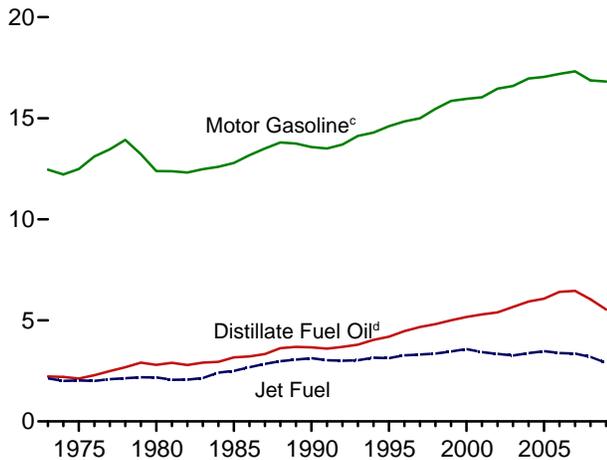
Industrial Sector,^a 1973-2009



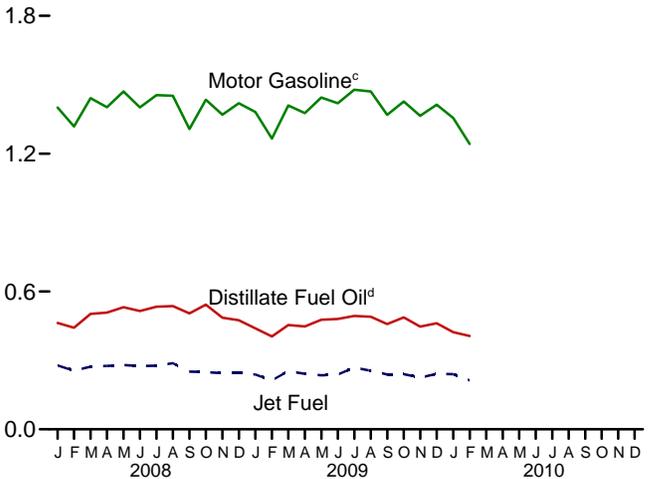
Industrial Sector,^a Monthly



Transportation Sector, 1973-2009



Transportation Sector, Monthly



^a Includes combined-heat-and-power plants and a small number of electricity-only plants.

^b Liquefied petroleum gases.

^c Beginning in 1993, includes fuel ethanol blended into motor gasoline.

^d Beginning in 2009, includes renewable diesel fuel (including bio-diesel) blended into distillate fuel oil.

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

Sources: Tables 3.8a-3.8c.

Table 3.8a Heat Content of Petroleum Consumption: Residential and Commercial Sectors (Trillion Btu)

	Residential Sector				Commercial Sector ^a						
	Distillate Fuel Oil	Kerosene	Liquefied Petroleum Gases	Total	Distillate Fuel Oil	Kerosene	Liquefied Petroleum Gases	Motor Gasoline ^b	Petroleum Coke	Residual Fuel Oil	Total
1973 Total	2,003	227	557	2,787	644	65	143	87	NA	665	1,604
1975 Total	1,807	161	496	2,463	587	49	125	89	NA	492	1,342
1980 Total	1,316	107	298	1,721	518	41	84	107	NA	565	1,314
1985 Total	1,092	159	295	1,546	631	33	89	96	NA	228	1,077
1990 Total	978	64	333	1,375	536	12	97	111	0	230	985
1995 Total	905	74	373	1,352	479	22	103	18	(s)	141	763
1996 Total	926	89	441	1,456	483	21	115	27	(s)	137	783
1997 Total	874	93	429	1,396	444	25	113	43	(s)	111	736
1998 Total	772	108	399	1,280	429	31	111	39	(s)	85	695
1999 Total	828	111	496	1,435	438	27	132	28	(s)	73	699
2000 Total	905	95	522	1,521	491	30	141	45	(s)	92	798
2001 Total	908	95	495	1,499	508	31	134	37	(s)	70	782
2002 Total	860	60	506	1,426	444	16	133	45	(s)	80	718
2003 Total	905	70	515	1,490	481	19	148	60	(s)	111	820
2004 Total	924	85	483	1,491	470	20	143	45	(s)	122	802
2005 Total	854	84	484	1,422	447	22	124	46	(s)	116	755
2006 Total	712	66	419	1,197	401	15	116	49	(s)	75	656
2007 Total	726	44	453	1,223	384	9	114	61	(s)	75	644
2008 January	93	2	54	149	52	(s)	15	4	(s)	10	82
February	89	3	49	142	50	1	14	4	(s)	10	78
March	68	3	49	120	38	1	14	4	(s)	7	64
April	51	(s)	40	92	28	(s)	12	4	(s)	6	50
May	37	1	41	80	21	(s)	12	4	0	4	41
June	40	1	42	82	22	(s)	12	4	0	4	42
July	39	(s)	44	82	22	(s)	12	4	0	4	42
August	35	(s)	43	78	19	(s)	12	4	0	4	40
September	36	1	31	69	20	(s)	9	4	(s)	4	37
October	42	1	41	85	23	(s)	12	4	(s)	5	44
November	51	2	41	95	28	(s)	12	4	(s)	6	50
December	81	6	43	130	45	1	12	4	(s)	9	71
Total	664	21	519	1,204	369	4	148	46	(s)	73	640
2009 January	81	5	48	134	45	1	14	4	(s)	8	72
February	69	4	41	114	38	1	12	3	(s)	7	61
March	65	2	45	112	36	(s)	13	4	(s)	7	60
April	50	2	40	92	28	(s)	11	4	0	5	48
May	35	2	39	76	19	(s)	11	4	0	4	38
June	32	1	36	69	18	(s)	10	4	0	3	35
July	37	(s)	41	79	21	(s)	12	4	0	4	40
August	38	1	42	81	21	(s)	12	4	(s)	4	41
September	45	(s)	40	86	25	(s)	12	4	(s)	5	45
October	40	2	48	90	22	(s)	14	4	0	4	44
November	44	3	53	100	24	1	15	4	(s)	4	48
December	72	3	55	130	40	1	16	4	(s)	7	68
Total	609	25	528	1,162	338	5	151	46	(s)	62	602
2010 January	64	2	56	122	36	(s)	16	4	(s)	7	62
February	60	4	49	113	33	1	14	3	(s)	6	58
2-Month Total	124	6	106	235	69	1	30	7	(s)	13	120
2009 2-Month Total	150	9	89	248	83	2	25	7	(s)	15	133
2008 2-Month Total	183	5	103	291	101	1	29	7	(s)	20	159

^a Commercial sector fuel use, including that at commercial combined-heat-and-power (CHP) and commercial electricity-only plants.

^b Finished motor gasoline. Beginning in 1993, also includes fuel ethanol blended into motor gasoline.

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

Notes: • Data are estimates. • For total heat content of petroleum consumption by all sectors, see data for heat content of petroleum products supplied in Table

3.6. Petroleum products supplied is an approximation of petroleum consumption and is synonymous with the term "petroleum consumption" in Tables 3.7a-c and 3.8a-c. • See Note 7, "Petroleum Products Supplied and Petroleum Consumption," 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: See <http://www.eia.doe.gov/emeu/mer/petro.html> for all available data beginning in 1973.

Sources: Tables 3.7a, A1, and A3.

Table 3.8b Heat Content of Petroleum Consumption: Industrial Sector
(Trillion Btu)

	Industrial Sector ^a									Total
	Asphalt and Road Oil	Distillate Fuel Oil	Kerosene	Liquefied Petroleum Gases	Lubricants	Motor Gasoline ^b	Petroleum Coke	Residual Fuel Oil	Other ^c	
1973 Total	1,264	1,469	156	1,233	195	255	558	1,858	2,117	9,104
1975 Total	1,014	1,339	119	1,144	149	223	540	1,509	2,107	8,146
1980 Total	962	1,324	181	1,577	182	158	516	1,349	3,275	9,525
1985 Total	1,029	1,119	44	1,690	166	218	575	748	2,149	7,738
1990 Total	1,170	1,150	12	1,608	186	185	714	411	2,840	8,278
1995 Total	1,178	1,131	15	2,019	178	200	721	337	2,834	8,614
1996 Total	1,176	1,187	18	2,089	173	200	757	335	3,119	9,053
1997 Total	1,224	1,203	19	2,134	182	212	727	291	3,298	9,290
1998 Total	1,263	1,211	22	2,048	191	199	858	230	3,093	9,116
1999 Total	1,324	1,187	13	2,256	193	152	936	207	3,128	9,396
2000 Total	1,276	1,200	16	2,271	190	150	796	241	2,981	9,120
2001 Total	1,257	1,300	23	2,054	174	295	858	203	3,056	9,220
2002 Total	1,240	1,204	14	2,200	172	309	842	190	3,041	9,212
2003 Total	1,220	1,136	24	2,068	159	324	825	220	3,260	9,237
2004 Total	1,304	1,214	28	2,180	161	372	934	249	3,429	9,870
2005 Total	1,323	1,264	39	2,047	160	356	889	281	3,320	9,680
2006 Total	1,261	1,263	30	2,140	156	376	934	239	3,416	9,815
2007 Total	1,197	1,265	13	2,146	161	306	906	193	3,308	9,496
2008 January	73	140	(s)	195	13	21	79	19	294	833
February	58	135	1	176	12	20	61	14	278	754
March	61	138	1	176	14	21	77	17	252	756
April	72	124	(s)	146	14	21	75	19	232	702
May	95	114	(s)	150	14	22	74	19	243	730
June	114	73	(s)	150	13	21	67	17	233	688
July	114	66	(s)	157	13	22	88	18	221	699
August	106	65	(s)	155	15	22	75	13	223	674
September	106	88	(s)	112	9	19	51	12	178	576
October	96	142	(s)	149	14	21	74	16	262	774
November	63	107	(s)	149	9	20	67	13	269	697
December	56	75	1	157	10	21	82	21	254	676
Total	1,012	1,267	4	1,870	150	250	868	198	2,940	8,559
2009 January	47	160	1	173	11	20	68	18	231	730
February	50	121	1	147	9	19	60	13	202	621
March	69	111	(s)	162	11	21	64	17	194	650
April	52	75	(s)	145	12	20	78	19	193	595
May	81	81	(s)	140	10	21	81	15	178	608
June	104	85	(s)	129	13	21	84	16	161	613
July	85	69	(s)	149	11	22	56	8	239	639
August	110	55	(s)	151	14	22	64	13	197	625
September	92	71	(s)	145	12	20	73	9	218	640
October	76	109	(s)	171	12	21	57	14	217	678
November	57	101	1	192	10	20	60	12	222	675
December	42	125	1	199	12	21	55	17	244	715
Total	866	1,162	5	1,904	136	249	801	169	2,496	7,788
2010 January	44	124	(s)	204	10	20	37	17	247	703
February	46	126	1	177	11	18	44	14	228	666
2-Month Total	90	250	1	381	21	38	81	30	476	1,369
2009 2-Month Total	98	281	2	320	19	39	128	31	433	1,350
2008 2-Month Total	131	275	1	370	25	40	140	33	572	1,588

^a Industrial sector fuel use, including that at industrial combined-heat-and-power (CHP) and industrial electricity-only plants.

^b Finished motor gasoline. Beginning in 1993, also includes fuel ethanol blended into motor gasoline.

^c Pentanes plus, petrochemical feedstocks, special naphthas, still gas (refinery gas), waxes, and miscellaneous products. Beginning in 1981, also includes negative barrels per day of distillate and residual fuel oil reclassified as unfinished oils, and other products (from both primary and secondary supply) reclassified as gasoline blending components. Beginning in 1983, also includes crude oil burned as fuel. Beginning in 2005, also includes naphtha-type jet fuel.

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

Notes: • Data are estimates. • For total heat content of petroleum consumption by all sectors, see data for heat content of petroleum products supplied in Table 3.6. Petroleum products supplied is an approximation of petroleum consumption and is synonymous with the term "petroleum consumption" in Tables 3.7a-c and 3.8a-c. • See Note 7, "Petroleum Products Supplied and Petroleum Consumption," 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: See <http://www.eia.doe.gov/emeu/mer/petro.html> for all available data beginning in 1973.

Sources: Tables 3.7b, A1, and A3.

Table 3.8c Heat Content of Petroleum Consumption: Transportation and Electric Power Sectors (Trillion Btu)

	Transportation Sector							Electric Power Sector ^a				
	Aviation Gasoline	Distillate Fuel Oil ^b	Jet Fuel ^c	Liquefied Petroleum Gases	Lubricants	Motor Gasoline ^d	Residual Fuel Oil	Total	Distillate Fuel Oil ^e	Petroleum Coke	Residual Fuel Oil ^f	Total
1973 Total	83	2,222	2,131	48	163	12,455	727	17,831	273	15	3,226	3,515
1975 Total	71	2,121	2,029	42	155	12,485	711	17,614	226	2	2,937	3,166
1980 Total	64	2,795	2,179	17	172	12,383	1,398	19,009	169	5	2,459	2,634
1985 Total	50	3,170	2,497	28	156	12,784	786	19,471	85	7	998	1,090
1990 Total	45	3,661	3,129	22	176	13,575	1,016	21,625	97	30	1,163	1,289
1995 Total	40	4,195	3,132	17	168	14,607	911	23,069	108	81	566	755
1996 Total	37	4,469	3,274	15	163	14,837	851	23,647	109	80	628	817
1997 Total	40	4,672	3,308	13	172	14,999	712	23,917	111	102	715	927
1998 Total	35	4,812	3,357	17	180	15,463	674	24,537	136	124	1,047	1,306
1999 Total	39	5,001	3,462	13	182	15,855	665	25,218	140	112	959	1,211
2000 Total	36	5,165	3,580	11	179	15,960	888	25,820	175	99	871	1,144
2001 Total	35	5,292	3,426	13	164	16,041	586	25,556	171	103	1,003	1,277
2002 Total	34	5,392	3,340	13	162	16,465	677	26,084	127	175	659	961
2003 Total	30	5,666	3,265	16	150	16,597	571	26,296	161	175	869	1,205
2004 Total	31	5,932	3,383	18	152	16,962	740	27,218	111	222	879	1,212
2005 Total	35	6,076	3,475	27	151	17,043	837	27,644	115	243	876	1,235
2006 Total	33	6,414	3,379	26	147	17,197	906	28,103	74	214	361	648
2007 Total	32	6,457	3,358	21	152	17,321	994	28,334	89	171	397	657
2008 January	2	463	278	4	13	1,401	83	2,243	9	15	21	44
February	2	442	255	3	11	1,319	58	2,090	7	14	17	37
March	2	503	273	3	13	1,441	76	2,311	5	11	15	31
April	3	508	276	3	13	1,402	92	2,296	5	12	17	34
May	3	532	279	3	13	1,471	91	2,391	5	12	18	35
June	2	515	276	3	12	1,401	78	2,288	8	14	30	52
July	2	534	277	3	13	1,455	87	2,370	6	13	24	43
August	3	536	288	3	14	1,452	62	2,359	5	13	21	39
September	2	504	251	2	9	1,307	57	2,133	5	13	25	42
October	2	543	249	3	13	1,435	80	2,325	4	13	15	33
November	2	486	245	3	8	1,370	63	2,176	5	12	17	34
December	2	475	245	3	9	1,419	94	2,247	8	12	24	44
Total	28	6,039	3,193	37	141	16,872	920	27,230	73	154	240	468
2009 January	3	440	239	3	10	1,381	73	2,149	10	12	37	60
February	1	404	213	3	8	1,266	54	1,949	6	11	15	33
March	2	454	253	3	10	1,409	82	2,214	7	14	13	34
April	3	448	242	3	12	1,377	93	2,176	4	12	11	28
May	2	477	235	3	9	1,445	63	2,234	6	13	14	32
June	3	480	239	3	12	1,419	79	2,234	6	12	15	33
July	3	493	268	3	10	1,478	37	2,294	5	13	16	34
August	2	490	255	3	13	1,471	60	2,294	6	13	19	37
September	3	458	239	3	11	1,369	39	2,121	4	12	12	29
October	2	488	240	3	11	1,427	69	2,240	5	8	13	26
November	1	447	226	4	10	1,365	56	2,108	5	8	8	20
December	2	462	241	4	11	1,413	79	2,213	6	10	8	24
Total	26	5,541	2,889	38	128	16,820	785	26,227	71	139	181	390
2010 January	2	423	240	4	10	1,355	80	2,113	15	13	18	45
February	1	406	213	3	10	1,242	64	1,941	5	12	7	23
2-Month Total	3	829	453	8	20	2,597	144	4,054	19	25	25	69
2009 2-Month Total	4	844	451	6	18	2,647	128	4,098	17	23	52	92
2008 2-Month Total	4	905	533	7	24	2,719	141	4,333	16	28	37	81

^a Electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public. Through 1988, data are for electric utilities only; beginning in 1989, data are for electric utilities and independent power producers.

^b Beginning in 2009, includes renewable diesel fuel (including biodiesel) blended into distillate fuel oil.

^c Through 2004, includes kerosene-type and naphtha-type jet fuel. Beginning in 2005, includes kerosene-type jet fuel only; naphtha-type jet fuel is included in "Industrial Sector Other" on Table 3.8b.

^d Finished motor gasoline. Beginning in 1993, also includes fuel ethanol blended into motor gasoline.

^e Fuel oil nos. 1, 2, and 4. Through 2000, electric utility data also include small amounts of kerosene and jet fuel.

^f Fuel oil nos. 5 and 6. Through 2000, electric utility data also include a small

amount of fuel oil no. 4.

R=Revised.

Notes: • Transportation sector data are estimates. • For total heat content of petroleum consumption by all sectors, see data for heat content of petroleum products supplied in Table 3.6. Petroleum products supplied is an approximation of petroleum consumption and is synonymous with the term "petroleum consumption" in Tables 3.7a-c and 3.8a-c. • See Note 7, "Petroleum Products Supplied and Petroleum Consumption," 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: See <http://www.eia.doe.gov/emeu/mer/petro.html> for all available data beginning in 1973.

Sources: Tables 3.7c, A1, and A3.

Petroleum

Note 1. Petroleum Survey Respondents. The U.S. 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 & 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, communications 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, 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, 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 *Petroleum Supply Monthly (PSM)*, Appendix B, "Frame."

Note 2. Motor Gasoline. Beginning in January 1981, 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, EIA made adjustments to the product supplied series for finished motor gasoline. It was recognized that motor gasoline statistics published by 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 prepared a table of 1992 data adjusted according to the 1993 basis. See *Petroleum Supply Monthly*, March 1993, Table H3.

Note 3. Distillate and Residual Fuel Oils. The requirement to report crude oil in pipelines or burned on leases as

either distillate or residual fuel oil was 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, EIA modified its survey forms to account for redesignated product and discontinued the above-mentioned adjustment.

Prior to 1983, crude oil burned on leases and used at pipeline pump stations was reported as either distillate or residual fuel oil and was included as product supplied for these products.

Note 4. Petroleum 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 (Non-SPR).

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

Jet Fuel (Total): 1974—30; 1980—42; and 1982—39.

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

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

Motor Gasoline (Total): 1974—225; 1980—263; 1982—244.

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

Total Petroleum: 1974—1,121; 1980—1,425; and 1982—1,461.

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 is now reported on a component basis (ethane, propane, normal butane, isobutane, and pentanes plus). This change affects stocks reported and stock change calculations. Under the new basis, 1983 end-of-year stocks, in million barrels, would have been 108 for liquefied petroleum gases, and 55 for propane and propylene.

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

Note 5. Stocks of Alaskan Crude Oil. Stocks of Alaskan crude oil in transit were included for the first time in January 1981. The major impact of this change is on the

reporting of stock change calculations. Using the expanded coverage (new basis), 1980 end-of-year stocks, in million barrels, would have been 488 (Total) and 380 (Non-SPR).

Note 6. Petroleum 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. The corresponding PSA/PSM values, in thousand barrels per day, are: Natural Gas Plant Liquids Production, 1976: 1,603; Total Exports, 1979: 472; Petroleum Products Exports, 1979: 237; and SPR Crude Oil Imports, 1978: 162.

Note 7. Petroleum Products Supplied and Petroleum Consumption. Total petroleum products supplied is the sum of the products supplied for each petroleum product, crude oil, unfinished oils, and gasoline blending components. For each of these, except crude oil, product supplied is calculated by adding refinery production, natural gas plant liquids production, new supply of other liquids, imports, and stock withdrawals, and subtracting stock additions, refinery inputs, and exports. Crude oil product supplied is the sum of crude oil burned on leases and at pipeline pump stations as reported on Form EIA-813, "Monthly Crude Oil Report." Prior to 1983, crude oil burned on leases and used at pipeline pump stations was reported as either distillate or residual fuel oil and was included as product supplied for these products. Petroleum product supplied (see Tables 3.5 and 3.6) is an approximation of petroleum consumption and is synonymous with the term "Petroleum Consumption" in Tables 3.7a-c and 3.8a-c.

Tables 3.7a–3.7c Sources

Petroleum consumption data in these tables are derived from data for "petroleum products supplied" from the following sources:

1973–1975: U.S. Department of the Interior, Bureau of Mines, *Mineral Industry Surveys*, "Petroleum Statement, Annual."

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

1981–2008: EIA, *Petroleum Supply Annual*.

2009 and 2010: EIA, *Petroleum Supply Monthly*.

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

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

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

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

Distillate Fuel Oil Consumed by the Electric Power Sector—See sources for Table 7.4b. For 1973–1979, electric utility consumption of distillate fuel oil 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 1980–2000, electric utility consumption of distillate fuel oil is assumed to be the amount of light oil (fuel oil nos. 1 and 2, plus small amounts of kerosene and jet fuel) consumed.

Distillate Fuel Oil Consumed by the End-Use Sectors, Annually—The aggregate end-use amount is total distillate fuel oil supplied minus the amount consumed by the electric power sector. The end-use total consumed annually is allocated into the individual end-use sectors (residential, commercial, industrial, and transportation) in proportion to each sector's share of sales as reported in EIA's *Fuel Oil and Kerosene Sales (Sales)* report series (DOE/EIA-0535), which is based primarily on data collected by Form EIA-821, "Annual Fuel Oil and Kerosene Sales Report" (previously Form EIA-172). Shares for the current year are based on the most recent Sales report.

Following are notes on the individual sector groupings:

Since 1979, the residential sector 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 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 sales total is the sum of the 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 sales total is the sum of the sales for railroad, vessel bunkering, on-highway diesel, and military uses for all years.

Distillate Fuel Oil Consumed by the End-Use Sectors, Monthly—Residential sector and commercial sector 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. (For each month of the current year, the residential and commercial consumption increase

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

The transportation highway use portion is allocated into the months in proportion to each month's share of the year's total sales for highway use as reported by the Federal Highway Administration's Table MF-25, "Private and Commercial Highway Use of Special Fuels by Months." After 1993, the sales-for-highway-use data are no longer available as a monthly series; the 1993 data are used for allocating succeeding year's totals into months.

A distillate fuel oil "balance" is calculated as total distillate fuel oil supplied minus the amount consumed by the electric power sector, residential sector, commercial sector, and for highway use.

Industrial sector monthly consumption is estimated by multiplying each month's distillate fuel oil "balance" by the annual industrial consumption share of the annual distillate fuel oil "balance."

Total transportation sector monthly consumption is estimated as total distillate fuel oil supplied minus the amount consumed by the residential, commercial, industrial, and electric power sectors.

Jet Fuel—Through 1982, small amounts of kerosene-type jet fuel were consumed by the electric power sector. Kerosene-type jet fuel deliveries to the electric power sector as reported on Form FERC-423 (formerly Form FPC-423) were used as estimates of this consumption. Through 2004, all remaining jet fuel (kerosene-type and naphtha-type) is consumed by the transportation sector. Beginning in 2005, kerosene-type jet fuel is consumed by the transportation sector, while naphtha-type jet fuel is classified under "Other Petroleum Products," which is assigned to the industrial sector.

Kerosene—Kerosene product supplied is allocated into the individual end-use sectors (residential, commercial, and industrial) in proportion to each sector's share of sales as reported in EIA's *Fuel Oil and Kerosene Sales (Sales)* report series (DOE/EIA-0535), which is based primarily on data collected by Form EIA-821, "Annual Fuel Oil and Kerosene Sales Report" (previously Form EIA-172).

Since 1979, the residential sector sales total is directly from the Sales reports. Prior to 1979, each year's sales category

called "heating" is split into residential, commercial, and industrial in proportion to the 1979 shares.

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

Since 1979, the industrial sector sales total is the sum of the sales for industrial, farm, and all other uses. Prior to 1979, each year's sales category called "heating" is split into residential, commercial and industrial in proportion to the 1979 shares, and this estimated industrial (including farm) portion is added to all other uses.

Liquefied Petroleum Gases (LPG)—The annual shares of LPG's total consumption that are estimated to be used by each sector are applied to each month's total LPG consumption to create monthly sector consumption estimates. The annual sector shares are calculated as described below.

Sales of LPG to the residential and commercial sectors combined are converted from thousand gallons per year to thousand barrels per year and are assumed to be the annual consumption of LPG by the combined sectors. Since 2003, residential sector LPG consumption is assumed to equal propane retail sales, with the remainder of the combined residential and commercial LPG consumption being assigned to the commercial sector. Prior to 2003, residential sector LPG consumption is based on the average of the State residential shares for 2003-2008, with the remainder of the combined residential and commercial LPG consumption being assigned to the commercial sector.

The quantity of LPG sold each year for consumption in internal combustion engines is allocated between the transportation and industrial sectors on the basis of data for special fuels used on highways published by the U.S. Department of Transportation, Federal Highway Administration, in *Highway Statistics*. The allocations of LPG sold for internal combustion engine use to the transportation sector range from a low of 20 percent (in 2001) to a high of 78 percent (in 2008).

LPG consumed annually by the industrial sector is estimated as the difference between LPG total product supplied and the sum of the estimated LPG consumption by the residential, commercial, and transportation sectors. 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, "Sales of Liquefied Petroleum Gases."

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—Portions of petroleum coke are consumed by the electric power sector (see sources for Table 7.4b) and the commercial sector (see sources for Table 7.4c). The remaining petroleum coke is assigned to the industrial sector.

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

Residual Fuel Oil Consumed by the Electric Power Sector—See sources for Table 7.4b. For 1973–1979, electric utility consumption of residual fuel oil is assumed to be the amount of petroleum consumed in steam-electric power plants. For 1980–2000, electric utility consumption of residual fuel oil is assumed to be the amount of heavy oil (fuel oil nos. 4, 5, and 6) consumed.

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

Following are notes on the individual sector groupings:

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

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

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

Residual Fuel Oil Consumed by the End-Use Sectors, Monthly—Commercial sector 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. (For each month of the current year, the consumption increase from the same month in the previous year is based on the percent increase in that month's No. 2 heating oil sales from the same month in the previous year.) The years' No. 2 heating oil sales totals are from the following sources: for 1973–1980, the Ethyl Corporation, *Monthly Report of Heating Oil Sales*; for 1981 and 1982, the American Petroleum Institute, *Monthly Report of Heating Oil Sales*; and for 1983 forward, EIA, Form EIA-782A, "Refiners'/Gas Plant Operators' Monthly Petroleum Product Sales Report," No. 2 Fuel Oil Sales to End Users and for Resale.

A residual fuel oil "balance" is calculated as total residual fuel oil supplied minus the amount consumed by the electric power sector, commercial sector, and by industrial combined-heat-and-power plants (see sources for Table 7.4c).

Transportation sector monthly consumption is estimated by multiplying each month's residual fuel oil "balance" by the annual transportation consumption share of the annual residual fuel oil "balance."

Total industrial sector monthly consumption is estimated as

total residual fuel oil supplied minus the amount consumed by the commercial, transportation, and electric power sectors.

Other Petroleum Products—Consumption of all remaining petroleum products is assigned to the industrial sector. Other petroleum products include pentanes plus, petrochemical feedstocks, special naphthas, still gas (refinery

gas), waxes, and miscellaneous products. Beginning in 1981, also includes negative barrels per day of distillate and residual fuel oil reclassified as unfinished oils, and other products (from both primary and secondary supply) reclassified as gasoline blending components. Beginning in 1983, also includes crude oil burned as fuel. Beginning in 2005, also includes naphtha-type jet fuel.

4

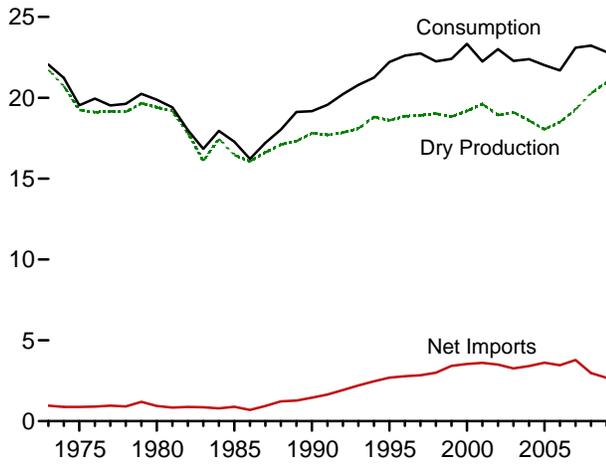
Natural Gas



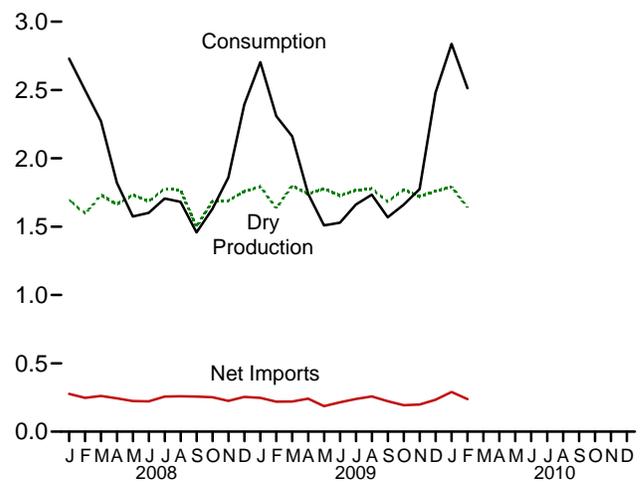
Natural gas pipeline, El Paso County, Texas. Source: U.S. Department of Energy.

Figure 4.1 Natural Gas
(Trillion Cubic Feet)

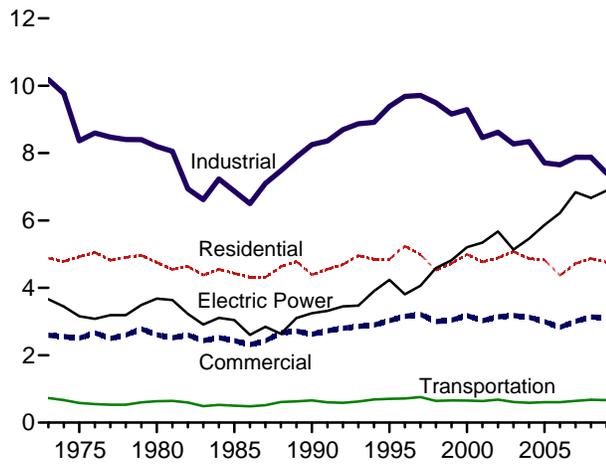
Overview, 1973-2009



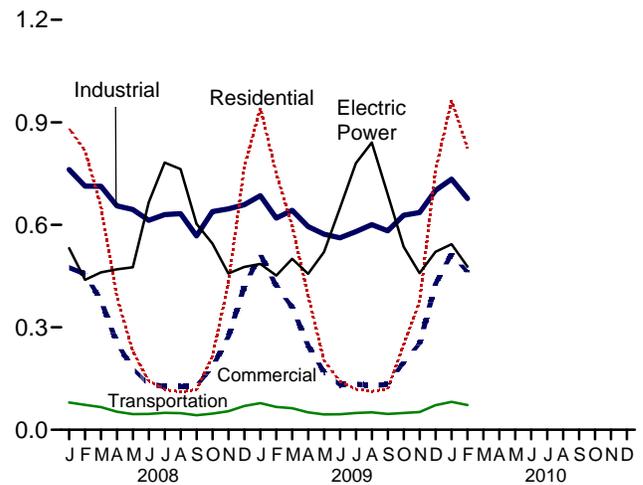
Overview, Monthly



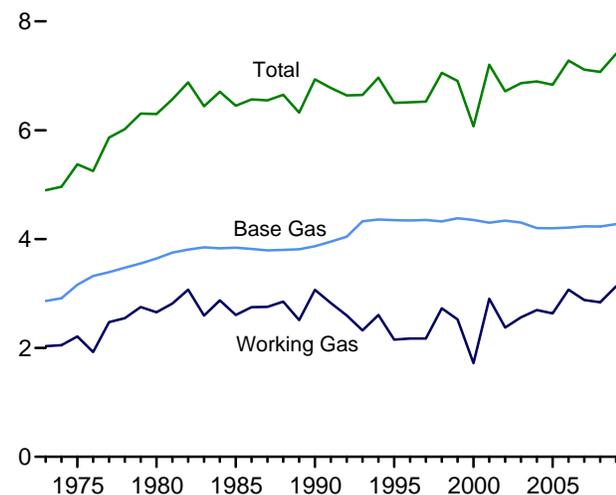
Consumption by Sector, 1973-2009



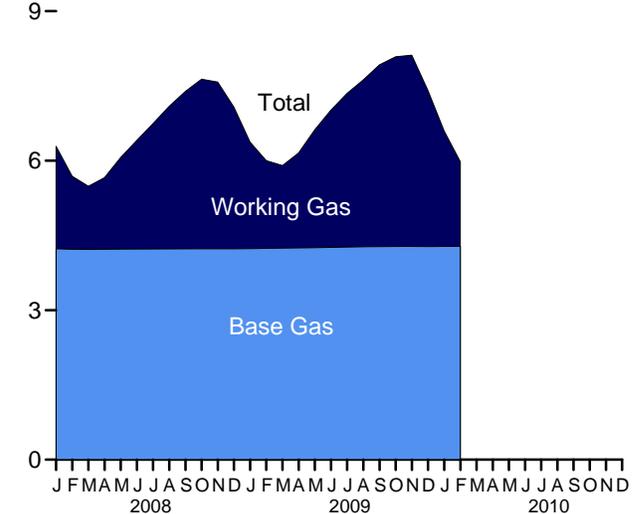
Consumption by Sector, Monthly



Underground Storage, End of Year, 1973-2009



Underground Storage, End of Month



Web Page: <http://www.eia.doe.gov/emeu/mer/natgas.html>.
Sources: Tables 4.1, 4.3, and 4.4.

Table 4.1 Natural Gas Overview
(Billion Cubic Feet)

	Gross Withdrawals ^a	Marketed Production (Wet) ^b	Extraction Loss ^c	Dry Gas Production ^d	Supplemental Gaseous Fuels ^e	Trade			Net Storage Withdrawals ^f	Balancing Item ^g	Consumption ^h
						Imports	Exports	Net Imports			
1973 Total	24,067	22,648	917	21,731	NA	1,033	77	956	-442	-196	22,049
1975 Total	21,104	20,109	872	19,236	NA	953	73	880	-344	-235	19,538
1980 Total	21,870	20,180	777	19,403	155	985	49	936	23	-640	19,877
1985 Total	19,607	17,270	816	16,454	126	950	55	894	235	-428	17,281
1990 Total	21,523	18,594	784	17,810	123	1,532	86	1,447	-513	307	19,174
1995 Total	23,744	19,506	908	18,599	110	2,841	154	2,687	415	396	22,207
1996 Total	24,114	19,812	958	18,854	109	2,937	153	2,784	2	860	22,609
1997 Total	24,213	19,866	964	18,902	103	2,994	157	2,837	24	871	22,737
1998 Total	24,108	19,961	938	19,024	102	3,152	159	2,993	-530	657	22,246
1999 Total	23,823	19,805	973	18,832	98	3,586	163	3,422	172	-119	22,405
2000 Total	24,174	20,198	1,016	19,182	90	3,782	244	3,538	829	-305	23,333
2001 Total	24,501	20,570	954	19,616	86	3,977	373	3,604	-1,166	99	22,239
2002 Total	23,941	19,885	957	18,928	68	4,015	516	3,499	468	44	23,007
2003 Total	24,119	19,974	876	19,099	68	3,944	680	3,264	-197	44	22,277
2004 Total	23,970	19,517	927	18,591	60	4,259	854	3,404	-114	448	22,389
2005 Total	23,457	18,927	876	18,051	64	4,341	729	3,612	52	232	22,011
2006 Total	23,535	19,410	906	18,504	66	4,186	724	3,462	-436	89	21,685
2007 Total	24,664	20,196	930	19,266	63	4,608	822	3,785	192	-209	23,097
2008											
January	2,164	1,775	80	1,695	1	390	113	277	837	-82	2,729
February	2,049	1,672	75	1,597	5	350	103	247	603	47	2,499
March	2,213	1,814	81	1,732	6	367	105	262	225	47	2,271
April	2,114	1,742	78	1,664	5	322	79	243	-195	104	1,822
May	2,169	1,815	81	1,733	5	297	73	224	-412	25	1,575
June	2,122	1,764	79	1,685	6	287	65	222	-349	38	1,602
July	2,212	1,861	84	1,777	4	323	66	257	-348	16	1,706
August	2,217	1,851	83	1,768	5	329	70	259	-357	6	1,681
September	1,929	1,569	70	1,499	5	314	58	256	-306	4	1,458
October	2,165	1,767	79	1,687	6	321	69	252	-248	-67	1,631
November	2,160	1,769	79	1,690	6	320	95	226	61	-122	1,860
December	2,240	1,841	83	1,759	6	365	110	254	523	-149	2,393
Total	25,754	21,240	953	20,286	61	3,984	1,006	2,979	34	-133	23,227
2009											
January	R 2,250	RE 1,867	74	RE 1,793	6	360	113	247	698	R -41	2,704
February	R 2,070	RE 1,704	68	RE 1,636	5	322	103	219	371	R 78	2,309
March	R 2,281	RE 1,879	78	RE 1,801	6	324	104	221	98	R 36	2,162
April	R 2,183	RE 1,814	76	RE 1,739	5	322	80	242	-246	R 2	R 1,741
May	R 2,231	RE 1,860	81	RE 1,779	5	264	77	187	-467	R 4	R 1,509
June	R 2,140	RE 1,804	77	RE 1,727	2	281	66	215	-387	R -28	R 1,529
July	R 2,176	RE 1,846	79	RE 1,767	5	316	76	239	-330	R -20	1,662
August	R 2,167	RE 1,859	80	RE 1,779	6	336	79	257	-268	R -40	1,734
September	R 2,099	RE 1,761	79	RE 1,683	5	306	84	222	-288	R -53	R 1,569
October	R 2,212	RE 1,853	82	RE 1,771	6	R 272	R 78	R 194	-161	R -150	R 1,661
November	R 2,163	RE 1,800	81	RE 1,720	6	R 295	96	R 199	-31	R -118	R 1,775
December	R 2,205	RE 1,845	84	RE 1,760	6	R 349	115	R 234	699	R -218	R 2,481
Total	R 26,177	RE 21,893	938	RE 20,955	64	R 3,748	R 1,071	R 2,677	-313	R -549	R 22,834
2010											
January	R 2,239	RE 1,872	R 80	RE 1,792	6	R 382	R 92	R 290	812	R -63	2,838
February	2,064	E 1,717	77	E 1,640	5	E 322	E 84	E 238	620	9	2,513
2-Month Total	4,303	E 3,590	158	E 3,432	11	E 704	E 176	E 528	1,432	-54	5,350
2009 2-Month Total	4,320	E 3,571	142	E 3,429	11	682	216	466	1,070	37	5,013
2008 2-Month Total	4,213	3,447	155	3,292	7	739	216	524	1,440	-35	5,228

^a Gas withdrawn from natural gas and crude oil wells; excludes lease condensate.

^b Gross withdrawals minus repressuring, nonhydrocarbon gases removed, and vented and flared. See Note 1, "Natural Gas Production," at end of section.

^c See Note 2, "Natural Gas Extraction Loss," at end of section.

^d Marketed production (wet) minus extraction loss.

^e See Note 3, "Supplemental Gaseous Fuels," at end of section.

^f Net withdrawals from underground storage. For 1980-2008, also includes net withdrawals of liquefied natural gas in above-ground tanks. See Note 4, "Natural Gas Storage," at end of section.

^g See Note 5, "Natural Gas Balancing Item," at end of section. Since 1980, excludes transit shipments that cross the U.S.-Canada border (i.e., natural gas delivered to its destination via the other country).

^h See Note 6, "Natural Gas Consumption," at end of section.

ⁱ May include unknown quantities of nonhydrocarbon gases.

^j For 1989-1992, a small amount of consumption at independent power producers may be counted in both "Other Industrial" and "Electric Power Sector" on Table 4.3. See Note 7, "Natural Gas Consumption, 1989-1992," at end of section.

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

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

Web Page: See <http://www.eia.doe.gov/emeu/mer/natgas.html> for all available data beginning in 1973.

Sources: • **Imports and Exports:** Table 4.2. • **Consumption:** Table 4.3.

• **Balancing Item:** Calculated as consumption minus dry gas production, supplemental gaseous fuels, net imports, and net storage withdrawals. • **All Other Data:** 1973-2004—U.S. Energy Information Administration (EIA), *Natural Gas Annual*, annual reports. 2005 forward—EIA, *Natural Gas Monthly*, April 2010, Table 1.

Table 4.2 Natural Gas Trade by Country
(Billion Cubic Feet)

	Imports										Exports			
	Algeria ^a	Canada ^b	Egypt ^a	Mexico ^b	Nigeria ^a	Oman ^a	Qatar ^a	Trinidad and Tobago ^a	Other ^{a,c}	Total	Canada ^b	Japan ^a	Mexico ^b	Total
1973 Total	3	1,028	0	2	0	0	0	0	0	1,033	15	48	14	77
1975 Total	5	948	0	0	0	0	0	0	0	953	10	53	9	73
1980 Total	86	797	0	102	0	0	0	0	0	985	(s)	45	4	49
1985 Total	24	926	0	0	0	0	0	0	0	950	(s)	53	2	55
1990 Total	84	1,448	0	0	0	0	0	0	0	1,532	17	53	16	86
1995 Total	18	2,816	0	7	0	0	0	0	0	2,841	28	65	61	154
1996 Total	35	2,883	0	14	0	0	0	0	5	2,937	52	68	34	153
1997 Total	66	2,899	0	17	0	0	0	0	12	2,994	56	62	38	157
1998 Total	69	3,052	0	15	0	0	0	0	17	3,152	40	66	53	159
1999 Total	76	3,368	0	55	0	0	20	51	17	3,586	39	64	61	163
2000 Total	47	3,544	0	12	13	10	46	99	11	3,782	73	66	106	244
2001 Total	65	3,729	0	10	38	12	23	98	2	3,977	167	66	141	373
2002 Total	27	3,785	0	2	8	3	35	151	5	4,015	189	63	263	516
2003 Total	53	3,437	0	0	50	9	14	378	3	3,944	271	66	343	680
2004 Total	120	3,607	0	0	12	9	12	462	36	4,259	395	62	397	854
2005 Total	97	3,700	73	9	8	2	3	439	9	4,341	358	65	305	729
2006 Total	17	3,590	120	13	57	0	0	389	0	4,186	341	61	322	724
2007 Total	77	3,783	115	54	95	0	18	448	18	4,608	482	47	292	^d 822
2008														
January	0	360	3	1	0	0	0	25	0	390	70	3	40	113
February	0	326	0	0	0	0	0	21	3	350	63	3	37	103
March	0	342	0	1	0	0	0	21	3	367	70	4	31	105
April	0	290	3	(s)	3	0	0	26	0	322	47	4	28	79
May	0	261	3	4	0	0	0	25	3	297	43	5	25	73
June	0	251	6	3	3	0	3	21	0	287	30	5	30	65
July	0	288	6	4	0	0	0	25	0	323	31	5	30	66
August	0	289	3	4	3	0	0	26	3	329	29	6	35	70
September	0	276	9	7	3	0	0	20	0	314	27	4	27	58
October	0	288	3	6	0	0	0	24	0	321	37	4	28	69
November	0	292	9	6	0	0	0	14	0	320	65	4	26	95
December	0	327	9	7	0	0	0	19	3	365	79	4	28	110
Total	0	3,589	55	43	12	0	3	267	15	3,984	590	50	365	1,006
2009														
January	0	328	5	6	0	0	0	19	3	360	84	2	28	113
February	0	294	6	(s)	0	0	0	16	6	322	75	3	25	103
March	0	292	12	1	0	0	0	17	3	324	77	3	24	104
April	0	259	22	7	8	0	0	20	6	322	55	2	23	80
May	0	214	15	1	0	0	0	31	3	264	46	2	29	77
June	0	229	14	1	0	0	0	34	3	281	37	2	28	66
July	0	269	14	2	3	0	0	21	6	316	42	4	31	76
August	0	298	17	3	0	0	0	17	0	336	45	2	32	79
September	0	274	14	1	2	0	0	15	0	306	47	4	33	84
October	0	^R 243	15	2	0	0	0	13	0	^R 272	^R 47	2	29	^R 78
November	0	^R 258	12	(s)	0	0	8	17	0	^R 295	65	2	29	96
December	0	310	14	3	0	0	4	17	0	^R 349	80	4	28	^e 115
Total	0	^R 3,268	160	28	13	0	13	236	29	^R 3,748	^R 700	31	338	^e R 1,071
2010														
January	0	^R 325	17	1	0	0	12	22	6	^R 382	^R 67	2	^R 23	^R 92
February	0	^E 275	12	^E 1	0	0	6	16	12	^E 322	^E 55	2	^E 23	^E 84
2-Month Total	0	^E 600	28	^E 2	0	0	18	38	18	^E 704	^E 122	4	^E 46	^E 176
2009 2-Month Total	0	621	11	6	0	0	0	35	9	682	159	5	53	216
2008 2-Month Total	0	686	3	1	0	0	0	46	3	739	133	6	77	216

^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 8, "Natural Gas Imports and Exports," at end of section.

^c Australia in 1997-2001 and 2004; Brunei in 2002; Equatorial Guinea in 2007; Indonesia in 1986 and 2000; Malaysia in 1999 and 2002-2005; Norway in 2008 forward; United Arab Emirates in 1996-2000; Yemen in 2010; and Other (unassigned) in 2004.

^d Includes 2 billion cubic feet to Russia in October 2007.

^e Includes 3 billion cubic feet to South Korea.

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

Notes: • See Note 8, "Natural Gas Imports and Exports," at end of section.

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

Web Page: See <http://www.eia.doe.gov/emeu/mer/natgas.html> for all available data beginning in 1973.

Sources: • **1973-1987:** U.S. Energy Information Administration (EIA), Form FPC-14, "Annual Report for Importers and Exporters of Natural Gas." • **1988-2007:** EIA, *Natural Gas Annual*, annual reports. • **2008 forward:** EIA, *Natural Gas Monthly*, April 2010, Table 4; and U.S. Department of Energy, Office of Fossil Energy, "Natural Gas Imports and Exports."

Table 4.3 Natural Gas Consumption by Sector
(Billion Cubic Feet)

	End-Use Sectors										Electric Power Sector ^{f,9}	Total
	Residential	Commercial ^a	Lease and Plant Fuel	Industrial			Total	Transportation				
				Other Industrial				Pipelines ^d and Distribution ^e	Vehicle Fuel	Total		
				CHP ^b	Non-CHP ^c	Total						
1973 Total	4,879	2,597	1,496	(h)	8,689	8,689	10,185	728	NA	728	3,660	22,049
1975 Total	4,924	2,508	1,396	(h)	6,968	6,968	8,365	583	NA	583	3,158	19,538
1980 Total	4,752	2,611	1,026	(h)	7,172	7,172	8,198	635	NA	635	3,682	19,877
1985 Total	4,433	2,432	966	(h)	5,901	5,901	6,867	504	NA	504	3,044	17,281
1990 Total	4,391	2,623	1,236	1,055	5,963	7,018	8,255	660	(s)	660	3,245	19,174
1995 Total	4,850	3,031	1,220	1,258	6,906	8,164	9,384	700	5	705	4,237	22,207
1996 Total	5,241	3,158	1,250	1,289	7,146	8,435	9,685	711	6	718	3,807	22,609
1997 Total	4,984	3,215	1,203	1,282	7,229	8,511	9,714	751	8	760	4,065	22,737
1998 Total	4,520	2,999	1,173	1,355	6,965	8,320	9,493	635	9	645	4,588	22,246
1999 Total	4,726	3,045	1,079	1,401	6,678	8,079	9,158	645	12	657	4,820	22,405
2000 Total	4,996	3,182	1,151	1,386	6,757	8,142	9,293	642	13	655	5,206	23,333
2001 Total	4,771	3,023	1,119	1,310	6,035	7,344	8,463	625	15	640	5,342	22,239
2002 Total	4,889	3,144	1,113	1,240	6,267	7,507	8,620	667	15	682	5,672	23,007
2003 Total	5,079	3,179	1,122	1,144	6,007	7,150	8,273	591	18	610	5,135	22,277
2004 Total	4,869	3,129	1,098	1,191	6,052	7,243	8,341	566	21	587	5,464	22,389
2005 Total	4,827	2,999	1,112	1,084	5,514	6,597	7,709	584	23	607	5,869	22,011
2006 Total	4,368	2,832	1,142	1,115	5,398	6,512	7,654	584	24	608	6,222	21,685
2007 Total	4,722	3,013	1,226	1,050	5,598	6,648	7,874	621	25	646	6,841	23,097
2008 January	882	475	103	87	572	659	761	77	2	80	531	2,729
February	817	457	97	78	538	616	713	71	2	73	439	2,499
March	654	378	105	80	527	608	713	64	2	66	461	2,271
April	389	254	100	75	480	555	656	51	2	53	470	1,822
May	230	179	104	79	462	541	645	43	2	46	475	1,575
June	143	133	101	80	432	512	613	44	2	47	665	1,602
July	118	127	106	88	436	524	630	47	2	50	782	1,706
August	111	126	106	89	438	527	632	46	2	49	763	1,681
September	117	129	91	71	405	476	567	40	2	43	603	1,458
October	215	184	103	80	456	536	638	45	2	47	545	1,631
November	428	273	102	74	470	544	647	52	2	54	458	1,860
December	768	420	106	75	477	552	659	67	2	70	476	2,393
Total	4,872	3,136	1,224	955	5,695	6,650	7,874	648	28	676	6,668	23,227
2009 January	942	513	E 108	80	498	578	R 685	E 75	E 3	E 78	485	2,704
February	750	421	E 98	72	449	521	R 619	E 64	E 2	E 67	452	2,309
March	597	359	RE 108	80	454	534	643	E 60	E 3	E 63	500	2,162
April	392	247	E 105	77	413	490	595	E 49	E 3	E 51	456	R 1,741
May	203	168	RE 107	77	R 389	R 466	573	E 42	E 3	E 45	521	R 1,509
June	R 142	R 131	RE 104	79	379	458	562	E 43	E 3	E 45	649	R 1,529
July	R 119	134	RE 106	82	R 392	R 474	580	E 46	E 3	E 49	780	1,662
August	R 112	130	RE 107	83	R 410	R 493	R 601	E 48	E 3	E 51	841	1,734
September	119	132	RE 101	81	400	481	R 582	E 44	E 3	E 46	689	R 1,569
October	250	198	RE 107	82	439	521	R 628	E 46	E 3	E 49	536	R 1,661
November	375	253	RE 104	82	451	R 532	R 636	E 50	E 3	E 52	459	R 1,775
December	760	427	RE 106	89	506	594	R 701	E 69	E 3	E 72	521	R 2,481
Total	R 4,761	R 3,113	RE 1,261	964	R 5,179	R 6,142	R 7,404	E 637	E 32	E 669	6,888	R 22,834
2010 January	964	R 515	RE 108	88	R 538	R 626	734	E 79	E 3	E 82	543	2,838
February	825	461	E 99	77	501	578	677	E 70	E 3	E 73	478	2,513
2-Month Total	1,789	976	E 207	165	1,039	1,204	1,411	E 149	E 5	E 155	1,021	5,350
2009 2-Month Total	1,692	934	E 206	152	947	1,099	1,305	E 140	E 5	E 145	937	5,013
2008 2-Month Total	1,699	931	200	165	1,110	1,275	1,475	148	5	153	970	5,228

^a All commercial sector fuel use, including that at commercial combined-heat-and-power (CHP) and commercial electricity-only plants. See Table 7.4c for CHP fuel use.

^b Industrial combined-heat-and-power (CHP) and a small number of industrial electricity-only plants.

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

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

^e Natural gas used as fuel in the delivery of natural gas to consumers.

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

⁹ Through 1988, data are for electric utilities only. Beginning in 1989, data are for electric utilities and independent power producers.

^h Included in "Non-CHP."

ⁱ For 1989-1992, a small amount of consumption at independent power producers may be counted in both "Other Industrial" and "Electric Power Sector." See Note 7, "Natural Gas Consumption, 1989-1992," at end of section.

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

Notes: • Data are for natural gas, plus a small amount of supplemental gaseous fuels. • See Note, "Classification of Power Plants Into Energy-Use Sectors," at end of Section 7. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/natgas.html> for all available data beginning in 1973.

Sources: • Residential, Commercial, Lease and Plant Fuel, Other Industrial Total and Pipelines and Distribution: 1973-2004—U.S. Energy Information Administration (EIA), *Natural Gas Annual (NGA)*, annual reports. 2005 forward—EIA, *Natural Gas Monthly (NGM)*, April 2010, Table 2. • Industrial CHP: Table 7.4c. • Vehicle Fuel: 1990 and 1991—EIA, NGA 2000, (November 2001), Table 95. 1992-1998—"Alternatives to Traditional Transportation Fuels 1999" (October 1999), Table 10, and "Alternatives to Traditional Transportation Fuels 2003" (February 2004), Table 10. Data for compressed natural gas and liquefied natural gas in gasoline-equivalent gallons were converted to cubic feet by multiplying by the motor gasoline conversion factor (see Table A3) and dividing by the natural gas end-use sectors conversion factor (see Table A4). 1999-2004—EIA, NGA, annual reports. 2005 forward—EIA, NGM, April 2010, Table 2. • Electric Power Sector: Table 7.4b.

Table 4.4 Natural Gas in Underground Storage
(Volumes in Billion Cubic Feet)

	Natural Gas in Underground Storage, End of Period			Change in Working Gas From Same Period Previous Year		Storage Activity		
	Base Gas	Working Gas	Total ^a	Volume	Percent	Withdrawals	Injections	Net ^{b,c}
1973 Total	2,864	2,034	4,898	305	17.6	1,533	1,974	-442
1975 Total	3,162	2,212	5,374	162	7.9	1,760	2,104	-344
1980 Total	3,642	2,655	6,297	-99	-3.6	1,910	1,896	14
1985 Total	3,842	2,607	6,448	-270	-9.4	2,359	2,128	231
1990 Total	3,868	3,068	6,936	555	22.1	1,934	2,433	-499
1995 Total	4,349	2,153	6,503	-453	-17.4	2,974	2,566	408
1996 Total	4,341	2,173	6,513	19	.9	2,911	2,906	6
1997 Total	4,350	2,175	6,525	2	.1	2,824	2,800	24
1998 Total	4,326	2,730	7,056	554	25.5	2,379	2,905	-526
1999 Total	4,383	2,523	6,906	-207	-7.6	2,772	2,598	174
2000 Total	4,352	1,719	6,071	-806	-31.9	3,498	2,684	814
2001 Total	4,301	2,904	7,204	1,185	68.9	2,309	3,464	-1,156
2002 Total	4,340	2,375	6,715	-528	-18.2	3,138	2,670	468
2003 Total	4,303	2,563	6,866	187	7.9	3,099	3,292	-193
2004 Total	4,201	2,696	6,897	133	5.2	3,037	3,150	-113
2005 Total	4,200	2,635	6,835	-61	-2.3	3,057	3,002	55
2006 Total	4,211	3,070	7,281	435	16.5	2,493	2,924	-431
2007 Total	4,234	2,879	7,113	-191	-6.2	3,325	3,133	192
2008								
January	4,232	2,056	6,288	-327	-13.7	891	67	824
February	4,222	1,465	5,686	-187	-11.3	648	56	593
March	4,221	1,266	5,487	-337	-21.0	350	131	219
April	4,222	1,436	5,659	-286	-16.6	106	296	-190
May	4,225	1,840	6,065	-342	-15.7	56	461	-405
June	4,230	2,178	6,407	-405	-15.7	81	423	-342
July	4,228	2,517	6,745	-379	-13.1	88	430	-342
August	4,228	2,866	7,094	-155	-5.1	92	442	-350
September	4,230	3,161	7,391	-155	-4.7	98	398	-300
October	4,235	3,399	7,634	-166	-4.7	91	334	-242
November	4,232	3,346	7,577	-96	-2.8	250	193	57
December	4,232	2,840	7,073	-39	-1.4	622	110	513
Total	4,232	2,840	7,073	-39	-1.4	3,374	3,340	34
2009								
January	4,236	^R 2,137	^R 6,373	^R 81	^R 4.0	778	79	698
February	4,242	^R 1,757	^R 5,999	^R 293	^R 20.0	472	100	371
March	4,246	1,656	5,902	408	32.7	296	199	98
April	4,252	1,903	6,155	467	32.5	107	354	-246
May	4,253	2,367	6,620	531	28.9	45	512	-467
June	4,260	2,752	7,012	575	26.4	62	449	-387
July	4,266	3,086	7,352	570	22.7	83	413	-330
August	4,268	^R 3,353	^R 7,621	^R 487	^R 17.0	88	356	-268
September	4,278	3,643	7,921	^R 482	^R 15.3	57	346	-288
October	4,279	3,807	8,087	408	12.0	97	258	-161
November	4,284	3,833	8,117	487	14.6	140	171	-31
December	4,276	3,131	7,407	290	10.2	743	44	699
Total	4,276	3,131	7,407	290	10.2	2,968	3,281	-313
2010								
January	4,278	2,319	6,597	178	8.3	877	65	812
February	4,281	1,696	5,978	-61	-3.5	660	40	620
2-Month Total	--	--	--	--	--	1,538	105	1,432
2009 2-Month Total	--	--	--	--	--	1,249	180	1,070
2008 2-Month Total	--	--	--	--	--	1,539	123	1,416

^a For total underground storage capacity at the end of each calendar year, see Note 4, "Natural Gas Storage," at end of section.

^b For 1980-2008, data differ from those shown on Table 4.1, which includes liquefied natural gas storage for that period.

^c Positive numbers indicate that withdrawals are greater than injections. Negative numbers indicate that injections are greater than withdrawals. Net withdrawals or injections may not equal the difference between applicable ending stocks. See Note 4, "Natural Gas Storage," at end of section.

R=Revised. -- =Not applicable.

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: See <http://www.eia.doe.gov/emeu/mer/natgas.html> for all available data beginning in 1973.

Sources: • **Storage Activity: 1973-1975**—U.S. 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.

1996-2004—EIA, *Natural Gas Monthly (NGM)*, monthly issues. **2005**

forward—EIA, NGM, April 2010, Table 6. • **All 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-0, "Underground

Gas Storage Report," and Federal Power Commission (FPC), Form FPC-8,

"Underground Gas Storage Report." **1977 and 1978**—EIA, Form FEA-G318-M-0,

"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." **1996-2006**—EIA, NGM, monthly issues. **2007**

forward—EIA, NGM, April 2010, Table 6.

Natural Gas

Note 1. Natural Gas Production.

Annual data—Final annual data are from the U.S. Energy Information Administration (EIA) *Natural Gas Annual (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 *Natural Gas Monthly (NGM)*.

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

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

Note 2. Natural Gas Extraction Loss. Extraction loss is the reduction in volume of natural gas resulting from the removal of natural gas liquid constituents at natural gas processing plants.

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

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

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

Note 3. Supplemental Gaseous Fuels. Supplemental gaseous fuels are any substances that, introduced into or commingled with natural gas, increase 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.

Although the total amount of supplemental gaseous fuels consumed is known for 1980 forward, EIA estimates the amount consumed by each energy-use sector. It is assumed that supplemental gaseous fuels are commingled with natural gas consumed by the residential, commercial, other industrial, and electric power sectors, but are not commingled with natural gas used for lease and plant fuel, pipelines and distribution, or vehicle fuel. The estimated consumption of supplemental gaseous fuels by each sector (residential, commercial, other industrial, and electric power) is calculated as that sector's natural gas consumption (see Table 4.3) divided by the sum of natural gas consumption by the residential, commercial, other industrial, and electric power sectors (see Table 4.3), and then multiplied by total supplemental gaseous fuels consumption (see Table 4.1). For estimated sectoral consumption of supplemental gaseous fuels in Btu, the residential, commercial, and other industrial values in cubic feet are multiplied by the "End-Use Sectors" conversion factors (see Table A4), and the electric power values in cubic feet are multiplied by the "Electric Power Sector" conversion factors (see Table A4). Total supplemental gaseous fuels consumption in Btu is calculated as the sum of the Btu values for the sectors.

Note 4. Natural Gas Storage. Natural 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	1987 ... 8,124	1999 ... 8,229
1976 ... 6,544	1988 ... 8,124	2000 ... 8,241
1977 ... 6,678	1989 ... 8,120	2001 ... 8,415
1978 ... 6,890	1990 ... 7,794	2002 ... 8,207
1979 ... 6,929	1991 ... 7,993	2003 ... 8,206
1980 ... 7,434	1992 ... 7,932	2004 ... 8,255
1981 ... 7,805	1993 ... 7,989	2005 ... 8,268
1982 ... 7,915	1994 ... 8,043	2006 ... 8,330
1983 ... 7,985	1995 ... 7,953	2007 ... 8,402
1984 ... 8,043	1996 ... 7,980	2008 ... 8,499
1985 ... 8,087	1997 ... 8,332	2009 ... 8,569*
1986 ... 8,145	1998 ... 8,179	

* Preliminary

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 1980–2008 include both underground and liquefied natural gas (LNG) storage. Annual data on LNG additions and withdrawals are from Form EIA-176. Monthly data are estimated by computing the ratio of each month's underground storage additions and withdrawals to annual underground storage additions and withdrawals and applying the ratio to the annual LNG data.

Note 5. Natural Gas 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 that 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 EIA NGM, which was published in July 1985.

Note 6. Natural Gas Consumption. Consumption includes use for lease and plant fuel, pipelines and distribution, vehicle fuel, and electric power plants, as well as deliveries to residential, commercial, and other industrial customers.

Final data for series other than “Other Industrial CHP” and “Electric Power Sector” are from the EIA NGA. Monthly data are considered preliminary until after publication of the EIA NGA. For more detailed information on the methods of estimating preliminary and final monthly data, see the EIA NGM.

Note 7. Natural Gas Consumption, 1989-1992. Prior to 1993, deliveries to nonutility generators were not separately collected from natural gas companies on Form EIA-176, “Annual Report of Natural and Supplemental Gas Supply and Disposition.” As a result, for 1989 through 1992, those volumes are probably included in both the industrial and electric power sectors and double-counted in total consumption. In 1993, 0.28 trillion cubic feet was reported as delivered to nonutility generators.

Note 8. Natural Gas 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, Brunei, Egypt, Equatorial Guinea, Indonesia, Malaysia, Nigeria, Norway, 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*.

5

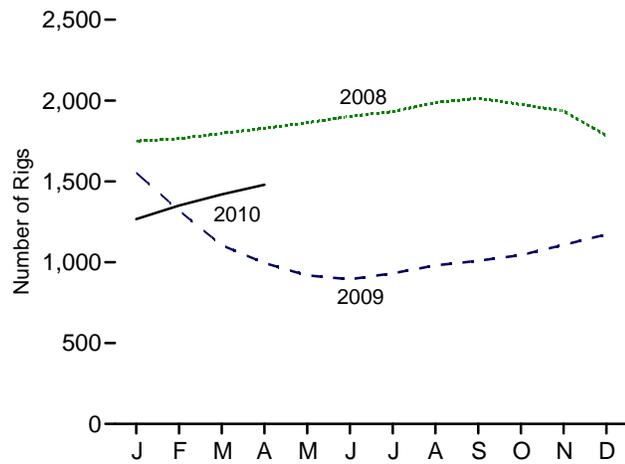
Crude Oil and Natural Gas Resource Development



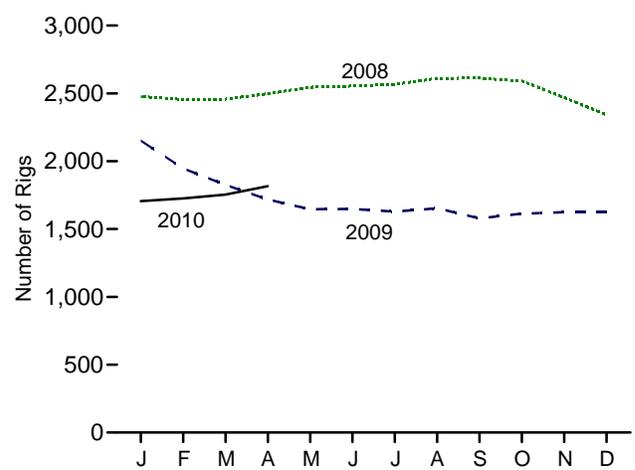
Semisubmersible drilling rig in the Gulf of Mexico. Source: U.S. Department of Energy.

Figure 5.1 Crude Oil and Natural Gas Resource Development Indicators

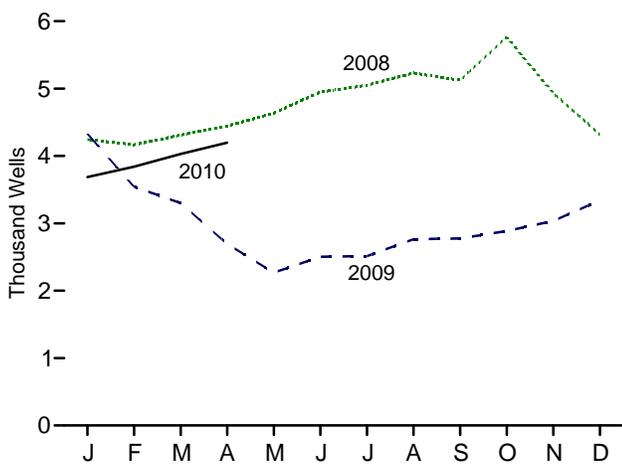
Rotary Rigs in Operation, Monthly



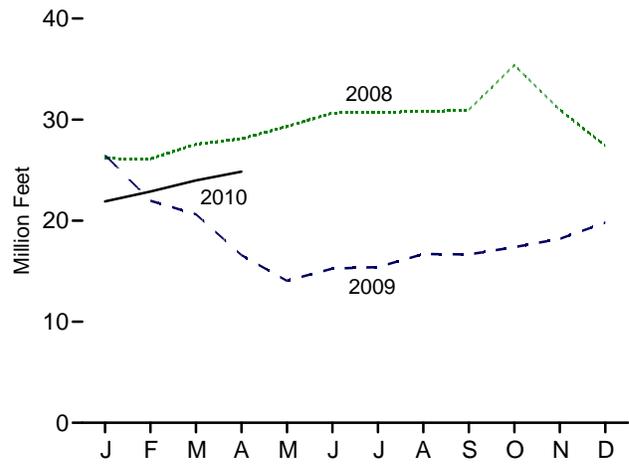
Active Well Service Rig Count, Monthly



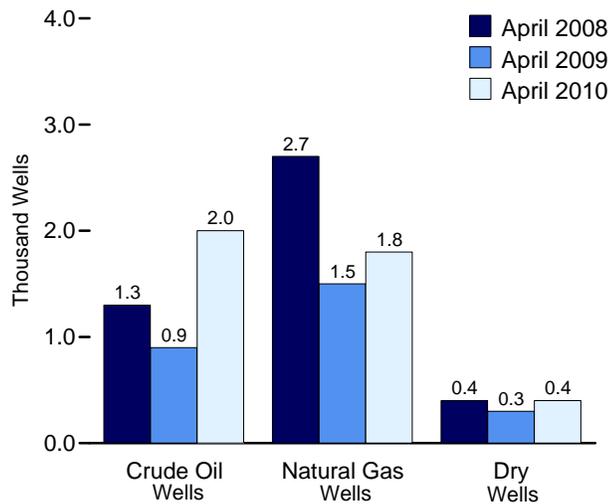
Wells Drilled, Monthly



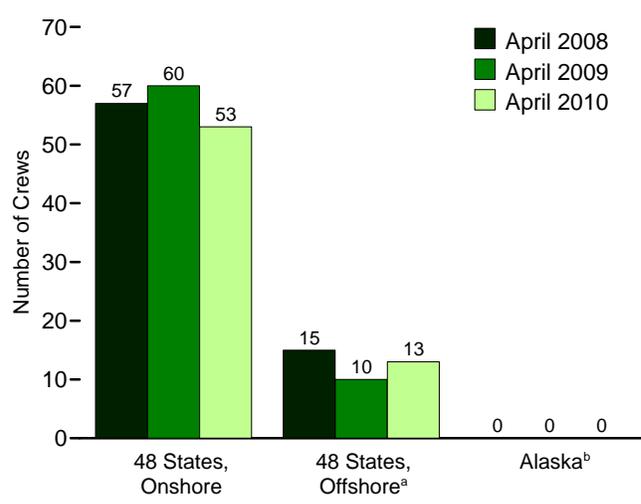
Footage Drilled, Monthly



Wells Drilled by Type



Maximum U.S. Active Seismic Crew Counts



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

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

Table 5.1 Crude Oil and Natural Gas Drilling Activity Measurements
(Number of Rigs)

	Rotary Rigs in Operation ^a					Active Well Service Rig Count ^c
	By Site		By Type		Total ^b	
	Onshore	Offshore	Crude Oil	Natural Gas		
1973 Average	1,110	84	NA	NA	1,194	2,008
1975 Average	1,554	106	NA	NA	1,660	2,486
1980 Average	2,678	231	NA	NA	2,909	4,089
1985 Average	1,774	206	NA	NA	1,980	4,716
1990 Average	902	108	532	464	1,010	3,658
1995 Average	622	101	323	385	723	3,041
1996 Average	671	108	306	464	779	3,445
1997 Average	821	122	376	564	943	3,499
1998 Average	703	123	264	560	827	3,014
1999 Average	519	106	128	496	625	2,232
2000 Average	778	140	197	720	918	2,692
2001 Average	1,003	153	217	939	1,156	2,267
2002 Average	717	113	137	691	830	1,830
2003 Average	924	108	157	872	1,032	1,967
2004 Average	1,095	97	165	1,025	1,192	2,064
2005 Average	1,287	94	194	1,184	1,381	2,222
2006 Average	1,559	90	274	1,372	1,649	2,364
2007 Average	1,695	72	297	1,466	1,768	2,388
2008 January	1,690	60	321	1,421	1,749	2,476
February	1,709	56	331	1,426	1,765	2,455
March	1,737	60	343	1,444	1,797	2,457
April	1,765	64	358	1,461	1,829	2,498
May	1,794	68	375	1,478	1,863	2,546
June	1,834	67	383	1,510	1,902	2,554
July	1,865	67	380	1,543	1,932	2,567
August	1,920	67	397	1,581	1,987	2,611
September	1,942	72	417	1,585	2,014	2,612
October	1,903	73	422	1,542	1,976	2,591
November	1,872	63	426	1,498	1,935	2,469
December	1,716	66	391	1,380	1,782	2,342
Average	1,814	65	379	1,491	1,879	2,515
2009 January	1,487	66	328	1,215	1,553	2,152
February	1,263	57	271	1,037	1,320	1,947
March	1,059	46	225	867	1,105	1,825
April	947	48	209	775	995	1,718
May	864	54	187	723	918	1,646
June	848	47	194	691	895	1,648
July	893	38	245	675	931	1,629
August	949	31	279	691	980	1,653
September	976	33	293	704	1,009	1,579
October	1,011	33	312	722	1,044	1,613
November	1,071	36	362	734	1,107	1,625
December	1,136	37	404	758	1,172	1,625
Average	1,046	44	278	801	1,089	1,722
2010 January	1,225	42	433	822	1,267	1,706
February	1,305	45	446	892	1,350	1,726
March	1,368	51	471	933	1,419	1,754
April	1,426	53	508	959	1,479	1,816
4-Month Average	1,337	48	467	905	1,385	1,751
2009 4-Month Average	1,207	55	262	988	1,262	1,911
2008 4-Month Average	1,724	60	338	1,437	1,784	2,472

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

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

^c The number of rigs doing true workovers (where tubing is pulled from the well), or doing rod string and pump repair operations, and that are, on average, crewed

and working every day of the month.

NA=Not available.

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

Web Page: See <http://www.eia.doe.gov/emeu/mer/resource.html> for all available data beginning in 1973.

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. • **Active Well Service Rig Count**: Cameron International Corporation, Houston, Texas.

Table 5.2 Crude Oil and Natural Gas Exploratory and Development Wells

	Wells Drilled												Total Footage Drilled Thousand Feet
	Exploratory				Development				Total				
	Crude Oil	Natural Gas	Dry	Total	Crude Oil	Natural Gas	Dry	Total	Crude Oil	Natural Gas	Dry	Total	
	Number												
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	138,223
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	180,494
1980 Total	1,777	2,099	9,081	12,957	31,182	15,362	11,704	58,248	32,959	17,461	20,785	71,205	316,943
1985 Total	1,680	1,200	8,954	11,834	33,581	13,124	12,257	58,962	35,261	14,324	21,211	70,796	314,409
1990 Total	778	811	3,651	5,240	12,040	10,416	4,587	27,043	12,818	11,227	8,238	32,283	156,284
1995 Total	570	557	2,023	3,150	7,668	7,524	2,790	17,982	8,238	8,081	4,813	21,132	117,497
1996 Total	489	576	1,956	3,021	8,341	8,439	2,934	19,714	8,830	9,015	4,890	22,735	126,693
1997 Total	491	561	2,113	3,165	10,703	10,933	3,761	25,397	11,194	11,494	5,874	28,562	161,775
1998 Total	327	566	1,590	2,483	7,340	11,051	3,173	21,564	7,667	11,617	4,763	24,047	137,569
1999 Total	197	568	1,157	1,922	4,567	11,417	2,397	18,381	4,764	11,985	3,554	20,303	102,915
2000 Total	287	655	1,338	2,280	7,806	16,334	2,797	26,937	8,093	16,989	4,135	29,217	144,374
2001 Total	358	1,052	1,724	3,134	8,526	20,983	2,842	32,351	8,884	22,035	4,566	35,485	180,164
2002 Total	257	843	1,279	2,379	6,506	16,454	2,455	25,415	6,763	17,297	3,734	27,794	145,165
2003 Total	353	999	1,300	2,652	7,757	19,689	2,676	30,122	8,110	20,688	3,976	32,774	177,549
2004 Total	385	1,666	1,351	3,402	8,379	22,451	2,703	33,533	8,764	24,117	4,054	36,935	204,326
2005 Total	537	2,143	1,474	4,154	10,162	26,372	3,184	39,718	10,699	28,515	4,658	43,872	240,598
2006 Total	660	2,464	1,534	4,658	12,631	30,414	3,649	46,694	13,291	32,878	5,183	51,352	284,233
2007 Total	832	2,878	1,613	5,323	12,742	30,254	3,497	46,493	13,574	33,132	5,110	51,816	308,460
2008													
January	91	221	154	466	1,122	2,382	275	3,779	1,213	2,603	429	4,245	26,160
February	85	244	111	440	1,109	2,364	254	3,727	1,194	2,608	365	4,167	26,118
March	70	241	139	450	1,119	2,459	282	3,860	1,189	2,700	421	4,310	27,550
April	69	227	131	427	1,243	2,481	292	4,016	1,312	2,708	423	4,443	28,112
May	95	229	137	461	1,348	2,580	248	4,176	1,443	2,809	385	4,637	29,318
June	64	213	158	435	1,498	2,706	312	4,516	1,562	2,919	470	4,951	30,654
July	77	175	186	438	1,494	2,764	353	4,611	1,571	2,939	539	5,049	30,735
August	72	192	153	417	1,511	2,902	401	4,814	1,583	3,094	554	5,231	30,782
September	55	191	179	425	1,532	2,799	369	4,700	1,587	2,990	548	5,125	30,972
October	93	290	187	570	1,748	3,070	377	5,195	1,841	3,360	564	5,765	35,384
November	107	236	177	520	1,410	2,649	356	4,415	1,517	2,885	533	4,935	30,971
December	70	193	146	409	1,265	2,299	346	3,910	1,335	2,492	492	4,319	27,400
Total	948	2,652	1,858	5,458	16,399	31,455	3,865	51,719	17,347	34,107	5,723	57,177	354,156
2009													
January	92	190	111	393	1,334	2,340	263	3,937	1,426	2,530	374	4,330	26,485
February	68	158	98	324	1,064	1,920	235	3,219	1,132	2,078	333	3,543	21,963
March	65	167	107	339	904	1,851	208	2,963	969	2,018	315	3,302	20,629
April	41	84	102	227	817	1,429	223	2,469	858	1,513	325	2,696	16,600
May	58	104	91	253	649	1,195	170	2,014	707	1,299	261	2,267	14,054
June	52	95	75	222	858	1,228	195	2,281	910	1,323	270	2,503	15,256
July	44	94	103	241	822	1,275	176	2,273	866	1,369	279	2,514	15,404
August	51	89	99	239	1,050	1,294	180	2,524	1,101	1,383	279	2,763	16,698
September	54	84	105	243	1,110	1,238	185	2,533	1,164	1,322	290	2,776	16,659
October	70	87	84	241	1,157	1,298	191	2,646	1,227	1,385	275	2,887	17,370
November	74	111	87	272	1,238	1,328	198	2,764	1,312	1,439	285	3,036	18,208
December	89	122	94	305	1,494	1,334	209	3,037	1,583	1,456	303	3,342	19,808
Total	758	1,385	1,156	3,299	12,497	17,730	2,433	32,660	13,255	19,115	3,589	35,959	219,134
2010													
January	95	127	103	325	1,627	1,505	231	3,363	1,722	1,632	334	3,688	21,908
February	97	128	109	334	1,648	1,603	255	3,506	1,745	1,731	364	3,840	22,874
March	101	141	114	356	1,735	1,671	267	3,673	1,836	1,812	381	4,029	23,981
April	108	142	119	369	1,873	1,672	282	3,827	1,981	1,814	401	4,196	24,841
4-Month Total	401	538	445	1,384	6,883	6,451	1,035	14,369	7,284	6,989	1,480	15,753	93,604
2009 4-Month Total	266	599	418	1,283	4,119	7,540	929	12,588	4,385	8,139	1,347	13,871	85,677
2008 4-Month Total	315	933	535	1,783	4,593	9,686	1,103	15,382	4,908	10,619	1,638	17,165	107,940

R=Revised.

Notes: • Prior to 1990, 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. After 1990, a new well is defined as the first hole in the ground whether it is lateral or not. 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 Note,

"Crude Oil and Natural Gas Exploratory and Development Wells," at end of section.

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

Web Page: See <http://www.eia.doe.gov/emeu/mer/resource.html> for all available data beginning in 1973.

Sources: • **1973-1989:** U.S. Energy Information Administration (EIA) computations based on well reports submitted to the American Petroleum Institute.

• **1990 forward:** EIA computations based on well reports submitted to IHS, Inc., Denver, CO.

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

	48 States, Onshore				48 States, Offshore ^a				Alaska ^b				Total
	Dimensions ^c			Total ^d	Dimensions ^c			Total ^d	Dimensions ^c			Total ^d	
	2	3	4		2	3	4		2	3	4		
2000 April	4	36	1	41	7	11	0	19	1	2	0	3	63
2001 April	7	39	1	47	9	9	0	18	0	0	0	0	65
2002 April	7	25	0	32	9	7	0	16	1	1	0	2	50
2003 April	7	20	0	27	7	4	0	11	1	1	0	2	40
2004 April	9	27	0	36	5	4	0	9	0	0	0	0	45
2005 April	8	30	0	38	6	6	0	12	0	0	0	0	50
2006 April	4	42	0	46	5	6	0	11	0	1	0	1	58
2007 January	3	51	0	54	3	5	0	8	0	1	0	1	63
February	3	51	0	54	3	5	0	8	0	1	0	1	63
March	4	55	0	59	3	5	0	8	0	1	0	1	68
April	4	55	0	59	4	6	1	11	0	1	0	1	71
May	3	55	0	58	4	6	1	11	0	1	0	1	70
June	3	55	0	58	3	6	1	10	0	1	0	1	69
July	2	57	0	59	3	6	1	10	0	0	0	0	69
August	2	56	0	58	4	8	1	13	0	0	0	0	71
September	3	58	0	61	3	8	1	12	0	0	0	0	73
October	4	60	0	65	3	8	1	12	0	0	0	0	77
November	4	60	0	65	3	10	1	14	0	0	0	0	79
December	5	54	0	60	4	10	1	15	0	0	0	0	75
2008 January	6	55	0	61	4	10	1	15	0	0	0	0	76
February	6	55	0	61	4	11	1	16	0	0	0	0	77
March	6	54	0	60	3	11	1	15	0	0	0	0	75
April	4	53	0	57	3	11	1	15	0	0	0	0	72
May	4	54	0	58	3	11	1	15	0	0	0	0	73
June	2	56	0	58	3	11	1	15	0	0	0	0	73
July	2	58	0	60	3	8	1	12	0	0	0	0	72
August	2	58	0	60	3	8	1	12	0	0	0	0	72
September	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
October	4	60	0	65	3	8	1	12	0	0	0	0	77
November	2	61	0	63	1	7	1	9	0	0	0	0	72
December	2	62	0	64	2	7	0	9	0	0	0	0	73
2009 January	2	63	0	65	2	8	0	10	0	0	0	0	75
February	3	62	0	65	2	9	0	11	0	0	0	0	76
March	3	59	0	62	2	8	0	10	0	0	0	0	72
April	3	57	0	60	2	8	0	10	0	0	0	0	70
May	2	54	0	56	2	7	0	9	0	0	0	0	65
June	2	50	0	52	2	6	0	8	0	0	0	0	60
July	2	51	0	53	2	6	0	8	0	0	0	0	61
August	2	49	0	51	3	6	0	9	0	0	0	0	60
September	1	49	0	50	4	6	0	10	0	0	0	0	60
October	1	50	0	51	5	7	0	12	0	0	0	0	63
November	0	49	0	49	5	8	0	13	0	0	0	0	62
December	0	50	0	50	5	8	0	13	0	0	0	0	63
2010 January	0	51	0	51	5	8	0	13	0	0	0	0	64
February	0	52	0	52	5	8	0	13	0	0	0	0	65
March	0	49	0	49	5	8	0	13	0	1	0	1	63
April	1	52	0	53	5	8	0	13	0	0	0	0	66

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

^b All onshore.

^c In **two-dimensional** (2D) reflection seismic surveying both the sound source and the sound detectors (numbering up to a hundred or more per shot) are moved along a straight line. The resultant product can be thought of as a vertical sonic cross-section of the subsurface beneath the survey line. It is constructed by summing many compressional (pressure) wave reflections from the various sound source and sound detector locations at the halfway sound path points beneath each location (common depth point stacking). In **three-dimensional** (3D) reflection seismic surveying the sound detectors (numbering up to a thousand or more) are spread out over an area and the sound source is moved from location to location through the area. The resultant product can be thought of as a cube of common depth point stacked reflections. Advantages over 2D include the additional dimension, the fact that many more reflections are available for stacking at each point, which provides greatly improved resolution of subsurface features, and elimination of the "ghost" or "side swipe" reflections from nearby offline features that 2D surveys are prone to (except, of course, along the outer faces of the cube). **Four dimensional** (4D)

reflection seismic surveying is the exact repetition of a 3D survey at two or more time intervals. The primary application of 4D is mapping the movement of fluid interfaces in producing oil and gas reservoirs.

^d Includes crews with unknown survey dimension.

NA=Not available.

Notes: • A "seismic crew" is a group of people, of varying number, engaged in a seismic surveying job. • "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: See <http://www.eia.doe.gov/emeu/mer/resource.html> for all available data beginning in March 2000.

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

Crude Oil and Natural Gas Resource Development

Note. Crude Oil and Natural Gas Exploratory and Development Wells. 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. If a lateral is drilled at the same time as the original hole it is not counted separately, but its footage is included.

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 U.S. 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,” a feature article published in the March 1985 MER.

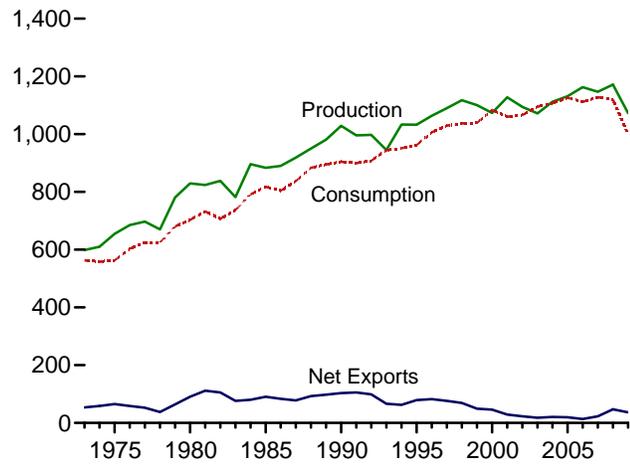
Coal



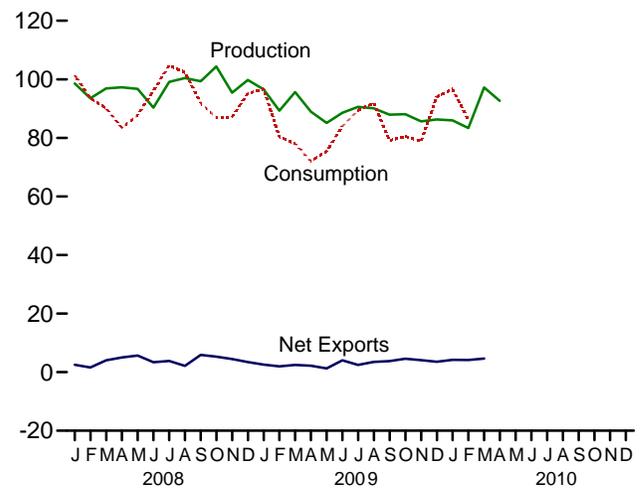
Coal yard, Curtis Bay, Maryland. Source: U.S. Department of Energy.

Figure 6.1 Coal
(Million Short Tons)

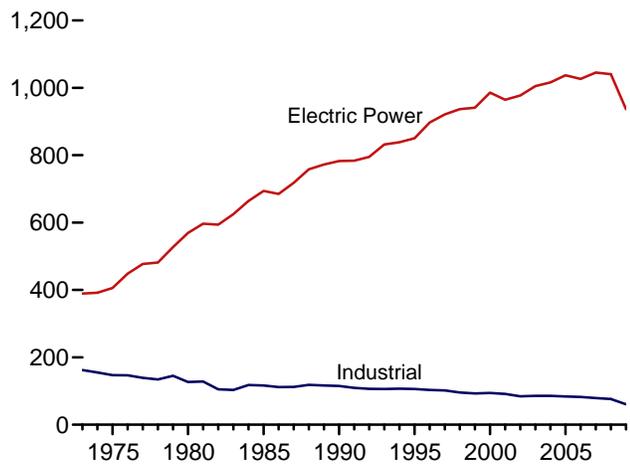
Overview, 1973-2009



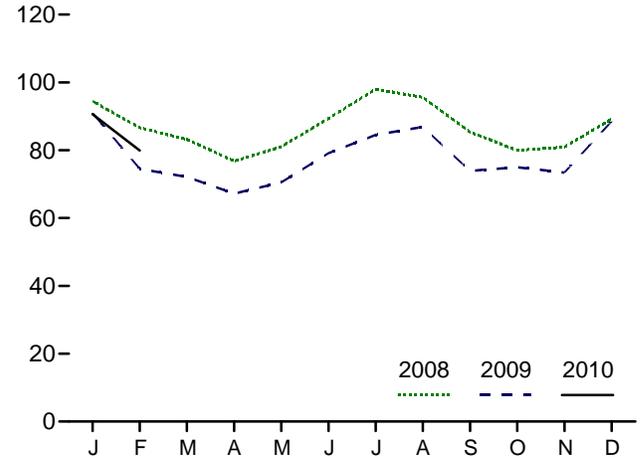
Overview, Monthly



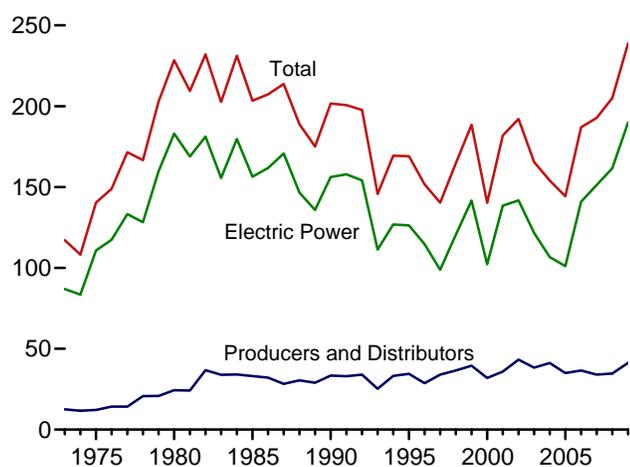
Consumption by Sector, 1973-2009



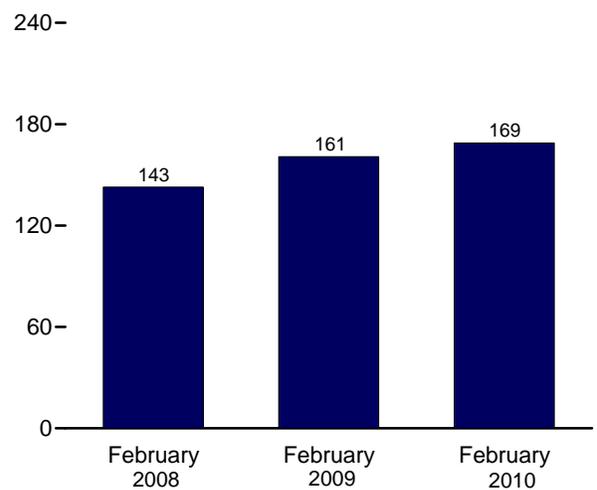
Electric Power Sector Consumption, Monthly



Stocks, End of Year, 1973-2009



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)

	Production ^a	Waste Coal Supplied ^b	Trade			Stock Change ^d	Losses and Unaccounted for ^e	Consumption
			Imports	Exports	Net Imports ^c			
1973 Total	598,568	NA	127	53,587	-53,460	(^f)	^f-17,476	562,584
1975 Total	654,641	NA	940	66,309	-65,369	32,154	-5,522	562,640
1980 Total	829,700	NA	1,194	91,742	-90,548	25,595	10,827	702,730
1985 Total	883,638	NA	1,952	92,680	-90,727	-27,934	2,796	818,049
1990 Total	1,029,076	3,339	2,699	105,804	-103,104	26,542	-1,730	904,498
1995 Total	1,032,974	8,561	9,473	88,547	-79,074	-275	632	962,104
1996 Total	1,063,856	8,778	8,115	90,473	-82,357	-17,456	1,411	1,006,321
1997 Total	1,089,932	8,096	7,487	83,545	-76,058	-11,253	3,678	1,029,544
1998 Total	1,117,535	8,690	8,724	78,048	-69,324	24,228	-4,430	1,037,103
1999 Total	1,100,431	8,683	9,089	58,476	-49,387	23,988	-2,906	1,038,647
2000 Total	1,073,612	9,089	12,513	58,489	-45,976	-48,309	938	1,084,095
2001 Total	1,127,689	10,085	19,787	48,666	-28,879	41,630	7,120	1,060,146
2002 Total	1,094,283	9,052	16,875	39,601	-22,726	10,215	4,040	1,066,355
2003 Total	1,071,753	10,016	25,044	43,014	-17,970	-26,659	-4,403	1,094,861
2004 Total	1,112,099	11,299	27,280	47,998	-20,718	-11,462	6,887	1,107,255
2005 Total	1,131,498	13,352	30,460	49,942	-19,482	-9,702	9,092	1,125,978
2006 Total	1,162,750	14,409	36,246	49,647	-13,401	42,642	8,824	1,112,292
2007 Total	1,146,635	14,076	36,347	59,163	-22,816	5,812	4,085	1,127,998
2008 January	98,587	1,301	2,381	4,915	-2,535	-3,937	-98	101,389
February	93,525	1,138	2,619	4,205	-1,586	-3,763	3,399	93,442
March	96,903	1,014	2,640	6,682	-4,041	3,043	679	90,154
April	97,287	1,086	2,985	7,979	-4,994	9,314	604	83,462
May	96,725	1,175	2,702	8,394	-5,692	3,271	1,129	87,807
June	90,319	1,160	3,295	6,695	-3,401	-8,840	882	96,036
July	99,132	1,295	2,569	6,404	-3,835	-10,205	2,073	104,724
August	100,428	1,214	3,144	5,264	-2,120	-4,738	1,870	102,390
September	99,351	1,163	2,772	8,653	-5,881	6,047	-3,323	91,909
October	104,390	1,145	2,921	8,233	-5,312	13,226	69	86,927
November	95,405	1,153	2,988	7,460	-4,472	9,224	-4,287	87,149
December	99,758	1,303	3,192	6,636	-3,444	-289	2,744	95,162
Total	1,171,809	14,146	34,208	81,519	-47,311	12,354	5,740	1,120,548
2009 January	96,568	1,258	2,329	4,907	-2,578	-1,985	506	96,727
February	89,266	881	1,855	3,822	-1,968	7,923	-119	80,375
March	95,610	965	2,141	4,605	-2,464	12,417	3,679	78,014
April	88,944	944	1,303	3,513	-2,210	13,460	2,123	72,095
May	85,122	854	2,283	3,552	-1,269	7,523	1,799	75,384
June	88,582	999	1,840	5,886	-4,045	2,793	-1,257	83,999
July	90,606	1,107	2,018	4,477	-2,459	-872	742	89,383
August	90,069	1,089	1,568	5,056	-3,488	-5,046	768	91,948
September	87,945	1,013	1,854	5,625	-3,771	4,749	1,353	79,085
October	88,086	1,050	1,762	6,364	-4,603	4,362	-358	80,528
November	85,645	1,090	1,506	5,586	-4,080	2,605	1,214	78,836
December	86,310	1,186	2,179	5,703	-3,524	-14,219	4,142	94,049
Total	1,072,752	12,435	22,639	59,097	-36,458	33,711	14,594	1,000,424
2010 January	85,961	^F 1,069	1,665	5,866	-4,202	^R -13,334	^R -497	^R 96,659
February	83,331	^{RF} 1,069	^R 1,239	^R 5,386	^R -4,146	^R -7,776	^R 1,980	^R 86,050
March	97,232	NA	^R 1,899	^R 6,554	^R -4,655	NA	NA	NA
April	92,667	NA	NA	NA	NA	NA	NA	NA
4-Month Total	359,191	NA	NA	NA	NA	NA	NA	NA
2009 4-Month Total	370,388	4,048	7,627	16,848	-9,220	31,815	6,190	327,211
2008 4-Month Total	386,302	4,539	10,626	23,781	-13,155	4,657	4,583	368,446

^a Beginning in 2001, includes a small amount of refuse recovery (coal recaptured from a refuse mine and cleaned to reduce the concentration of noncombustible materials).

^b Waste coal (including fine coal, coal obtained from a refuse bank or slurry dam, anthracite culm, bituminous gob, and lignite waste) consumed by the electric power and industrial sectors. Beginning in 1989, waste coal supplied is counted as a supply-side item to balance the same amount of waste coal included in "Consumption."

^c Net imports equal imports minus exports. A minus sign indicates exports are greater than imports.

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

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

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

^f In 1973, stock change is included in "Losses and Unaccounted for."

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

Notes: • For methodology used to calculate production, consumption, and stocks, see Note 1, "Coal Production," Note 2, "Coal Consumption," and Note 3, "Coal Stocks," at end of section. • Data values preceded by "F" are derived from the U.S. Energy Information Administration's Short-Term Integrated Forecasting System. See Note 4, "Coal Forecast Values," 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: See <http://www.eia.doe.gov/emeu/mer/coal.html> for all available data beginning in 1973.

Sources: See end of section.

Table 6.2 Coal Consumption by Sector
(Thousand Short Tons)

	End-Use Sectors										Electric Power Sector ^{e,f}	Total
	Residential	Commercial			Coke Plants	Industrial			Transportation			
		CHP ^a	Other ^b	Total		Other Industrial	Total	Total				
					CHP ^c	Non-CHP ^d	Total	Total				
1973 Total	4,113	(^g)	7,004	7,004	94,101	(^h)	68,038	68,038	162,139	116	389,212	562,584
1975 Total	2,823	(^g)	6,587	6,587	83,598	(^h)	63,646	63,646	147,244	24	405,962	562,640
1980 Total	1,355	(^g)	5,097	5,097	66,657	(^h)	60,347	60,347	127,004	(^h)	569,274	702,730
1985 Total	1,711	(^g)	6,068	6,068	41,056	(^h)	75,372	75,372	116,429	(^h)	693,841	818,049
1990 Total	1,345	1,191	4,189	5,379	38,877	27,781	48,549	76,330	115,207	(^h)	782,567	904,498
1995 Total	755	1,419	3,633	5,052	33,011	29,363	43,693	73,055	106,067	(^h)	850,230	962,104
1996 Total	721	1,660	3,625	5,285	31,706	29,434	42,254	71,689	103,395	(^h)	896,921	1,006,321
1997 Total	711	1,738	4,015	5,752	30,203	29,853	41,661	71,515	101,718	(^h)	921,364	1,029,544
1998 Total	534	1,443	2,879	4,322	28,189	28,553	38,887	67,439	95,628	(^h)	936,619	1,037,103
1999 Total	585	1,490	2,803	4,293	28,108	27,763	36,975	64,738	92,846	(^h)	940,922	1,038,647
2000 Total	454	1,547	2,126	3,673	28,939	28,031	37,177	65,208	94,147	(^h)	985,821	1,084,095
2001 Total	481	1,448	2,441	3,888	26,075	25,755	39,514	65,268	91,344	(^h)	964,433	1,060,146
2002 Total	533	1,405	2,506	3,912	23,656	26,232	34,515	60,747	84,403	(^h)	977,507	1,066,355
2003 Total	551	1,816	1,869	3,685	24,248	24,846	36,415	61,261	85,509	(^h)	1,005,116	1,094,861
2004 Total	512	1,917	2,693	4,610	23,670	26,613	35,582	62,195	85,865	(^h)	1,016,268	1,107,255
2005 Total	378	1,922	2,420	4,342	23,434	25,875	34,465	60,340	83,774	(^h)	1,037,485	1,125,978
2006 Total	290	1,886	1,050	2,936	22,957	25,262	34,210	59,472	82,429	(^h)	1,026,636	1,112,292
2007 Total	353	1,927	1,247	3,173	22,715	22,537	34,078	56,615	79,331	(^h)	1,045,141	1,127,998
2008												
January	40	197	159	356	1,834	1,954	2,746	4,700	6,534	(^h)	94,459	101,389
February	36	181	146	327	1,792	1,850	2,811	4,661	6,452	(^h)	86,626	93,442
March	35	176	142	317	1,910	1,879	2,797	4,676	6,586	(^h)	83,215	90,154
April	23	144	63	207	1,864	1,803	2,812	4,615	6,478	(^h)	76,753	83,462
May	23	145	64	208	1,911	1,857	2,751	4,609	6,520	(^h)	81,056	87,807
June	28	177	78	255	1,805	1,772	2,828	4,600	6,406	(^h)	89,347	96,036
July	25	169	53	222	1,915	1,871	2,659	4,530	6,445	(^h)	98,032	104,724
August	25	168	53	221	2,034	1,841	2,680	4,521	6,555	(^h)	95,590	102,390
September	23	155	49	203	1,818	1,783	2,706	4,489	6,307	(^h)	85,376	91,909
October	27	150	96	246	2,208	1,787	2,676	4,463	6,671	(^h)	79,982	86,927
November	30	166	107	272	1,626	1,721	2,616	4,337	5,963	(^h)	80,883	87,149
December	36	195	125	320	1,353	1,784	2,409	4,194	5,547	(^h)	89,259	95,162
Total	351	2,021	1,134	3,155	22,070	21,902	32,491	54,393	76,463	(^h)	1,040,580	1,120,548
2009												
January	39	196	158	354	1,390	1,762	2,259	4,022	5,412	(^h)	90,921	96,727
February	35	172	139	311	1,449	1,662	2,417	4,078	5,527	(^h)	74,503	80,375
March	33	164	133	297	1,559	1,738	2,246	3,984	5,543	(^h)	72,141	78,014
April	22	129	69	198	1,150	1,514	2,011	3,525	4,676	(^h)	67,199	72,095
May	21	124	67	191	1,118	1,564	1,956	3,520	4,638	(^h)	70,534	75,384
June	23	136	73	208	1,134	1,606	1,900	3,506	4,640	(^h)	79,128	83,999
July	21	137	49	187	1,032	1,696	1,957	3,653	4,685	(^h)	84,491	89,383
August	21	142	51	193	1,168	1,660	2,053	3,713	4,882	(^h)	86,852	91,948
September	20	131	47	178	1,250	1,574	2,175	3,750	5,000	(^h)	73,887	79,085
October	25	134	91	226	1,431	1,611	2,233	3,844	5,275	(^h)	75,002	80,528
November	28	152	103	255	1,274	1,551	2,331	3,881	5,156	(^h)	73,397	78,836
December	32	173	118	291	1,371	1,722	2,153	3,874	5,245	(^h)	88,481	94,049
Total	321	1,790	1,099	2,889	15,326	19,660	25,691	45,352	60,678	(^h)	936,536	1,000,424
2010												
January	F 36	193	RF 127	RF 320	RF 1,793	2,036	RF 1,888	RF 3,924	RF 5,717	(^h)	90,587	R 96,659
February	F 31	169	F 113	F 282	F 1,842	1,937	F 2,063	F 3,999	F 5,841	(^h)	79,896	86,050
2-Month Total	F 67	361	F 240	F 602	F 3,635	3,973	F 3,950	F 7,923	F 11,558	(^h)	170,482	182,709
2009 2-Month Total	74	367	297	665	2,839	3,424	4,676	8,100	10,939	(^h)	165,425	177,102
2008 2-Month Total	76	378	305	683	3,626	3,803	5,557	9,360	12,986	(^h)	181,085	194,830

^a Commercial combined-heat-and-power (CHP) and a small number of commercial electricity-only plants, such as those at hospitals and universities. See Note, "Classification of Power Plants Into Energy-Use Sectors," at end of Section 7.

^b All commercial sector fuel use other than that in "Commercial CHP."

^c Industrial combined-heat-and-power (CHP) and a small number of industrial electricity-only plants. See Note, "Classification of Power Plants Into Energy-Use Sectors," at end of Section 7.

^d All industrial sector fuel use other than that in "Coke Plants" and "Industrial CHP."

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

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

^g Included in "Commercial Other."

^h Included in "Industrial Non-CHP."

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

Notes: • CHP monthly values are from Table 7.4c; electric power sector monthly values are from Table 7.4b; all other monthly values are estimates derived from collected quarterly and annual data. See Note 2, "Coal Consumption," at end of section. • Data values preceded by "F" are derived from the U.S. Energy Information Administration's Short-Term Integrated Forecasting System. See Note 4, "Coal Forecast Values," 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: See <http://www.eia.doe.gov/emeu/mer/coal.html> for all available data beginning in 1973.

Sources: See end of section.

Table 6.3 Coal Stocks by Sector
(Thousand Short Tons)

	Producers and Distributors	End-Use Sectors				Total	Electric Power Sector ^{b,c}	Total
		Residential and Commercial	Industrial		Total			
			Coke Plants	Other ^a				
1973 Year	12,530	290	6,998	10,370	17,368	17,658	86,967	117,155
1975 Year	12,108	233	8,797	8,529	17,326	17,559	110,724	140,391
1980 Year	24,379	NA	9,067	11,951	21,018	21,018	183,010	228,407
1985 Year	33,133	NA	3,420	10,438	13,857	13,857	156,376	203,367
1990 Year	33,418	NA	3,329	8,716	12,044	12,044	156,166	201,629
1995 Year	34,444	NA	2,632	5,702	8,334	8,334	126,304	169,083
1996 Year	28,648	NA	2,667	5,688	8,355	8,355	114,623	151,627
1997 Year	33,973	NA	1,978	5,597	7,576	7,576	98,826	140,374
1998 Year	36,530	NA	2,026	5,545	7,571	7,571	120,501	164,602
1999 Year	39,475	NA	1,943	5,569	7,511	7,511	^c 141,604	188,590
2000 Year	31,905	NA	1,494	4,587	6,081	6,081	102,296	140,282
2001 Year	35,900	NA	1,510	6,006	7,516	7,516	138,496	181,912
2002 Year	43,257	NA	1,364	5,792	7,156	7,156	141,714	192,127
2003 Year	38,277	NA	905	4,718	5,623	5,623	121,567	165,468
2004 Year	41,151	NA	1,344	4,842	6,186	6,186	106,669	154,006
2005 Year	34,971	NA	2,615	5,582	8,196	8,196	101,137	144,304
2006 Year	36,548	NA	2,928	6,506	9,434	9,434	140,964	186,946
2007 Year	33,977	NA	1,936	5,624	7,560	7,560	151,221	192,758
2008 January	34,252	F 463	1,778	5,355	7,133	7,596	146,973	188,821
February	35,114	F 456	1,620	5,087	6,707	7,162	142,782	185,058
March	34,876	448	1,462	4,818	6,280	6,728	146,497	188,101
April	36,494	458	1,560	4,873	6,433	6,891	154,029	197,414
May	34,223	468	1,658	4,928	6,586	7,055	159,408	200,686
June	32,086	478	1,756	4,983	6,740	7,218	152,542	191,846
July	31,693	490	1,828	5,058	6,886	7,376	142,572	181,642
August	30,017	502	1,899	5,133	7,033	7,535	139,352	176,904
September	31,354	514	1,971	5,208	7,179	7,693	143,903	182,950
October	32,444	508	2,091	5,475	7,565	8,074	155,659	196,177
November	33,556	503	2,211	5,741	7,952	8,455	163,390	205,401
December	34,688	498	2,331	6,007	8,338	8,836	161,589	205,112
2009 January	38,394	490	2,260	5,788	8,049	8,539	156,194	203,127
February	42,066	483	2,190	5,570	7,760	8,243	160,741	211,050
March	41,257	475	2,119	5,352	7,471	7,946	174,264	223,468
April	43,195	477	2,000	5,266	7,266	7,744	185,989	236,928
May	41,622	480	1,880	5,181	7,061	7,541	195,288	244,451
June	44,018	482	1,760	5,096	6,856	7,338	195,887	247,244
July	45,372	496	1,703	5,099	6,802	7,298	193,702	246,372
August	42,457	510	1,647	5,101	6,748	7,259	191,611	241,326
September	41,690	524	1,590	5,104	6,695	7,219	197,167	246,075
October	43,882	526	1,686	5,106	6,792	7,318	199,238	250,437
November	42,217	527	1,781	5,108	6,889	7,416	203,409	253,042
December	41,257	529	1,957	5,109	7,066	7,595	189,971	238,823
2010 January	F 42,393	RF 514	RF 1,941	RF 4,826	RF 6,767	RF 7,281	175,815	R 225,489
February	F 41,825	F 512	F 1,928	F 4,546	F 6,474	F 6,986	168,902	217,713

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

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

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

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

Notes: • Stocks are at end of period. • Electric power sector monthly values

are from Table 7.5; producers and distributors monthly values are estimates derived from collected annual data; all other monthly values are estimates derived from collected quarterly values. • Data values preceded by "F" are derived from the U.S. Energy Information Administration's Short-Term Integrated Forecasting System. See Note 4, "Coal Forecast Values," 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: See <http://www.eia.doe.gov/emeu/mer/coal.html> for all available data beginning in 1973.

Sources: See end of section.

Coal

Note 1. Coal Production. Preliminary monthly estimates of national coal production are the sum of weekly estimates developed by the U.S. Energy Information Administration (EIA) and published in the *Weekly Coal Production* report. When a week extends into a new month, production is allocated on a daily basis and added to the appropriate month. Weekly estimates are based on Association of American Railroads (AAR) data showing the number of railcars loaded with coal during the week by Class I and certain other railroads.

Prior to 2002, the weekly coal production model converted AAR data into short tons of coal by using the average number of short tons of coal per railcar loaded reported in the “Quarterly Freight Commodity Statistics” from the Surface Transportation Board. If an average coal tonnage per railcar loaded was not available for a specific railroad, the national average was used. To derive the estimate of total weekly production, the total rail tonnage for the week was divided by the ratio of quarterly production shipped by rail and total quarterly production. Data for the corresponding quarter of previous years were used to derive this ratio. This method ensured that the seasonal variations were preserved in the production estimates.

Beginning in 2002, the weekly coal production model uses statistical autoregressive methods to estimate national coal production as a function of railcar loadings of coal, and heating degree-days and cooling degree-days. On Thursday of each week, EIA receives from the AAR data for the previous week. The latest weekly national data for heating degree-days and cooling degree-days are obtained from the National Oceanic and Atmospheric Administration’s Climate Prediction Center. The weekly coal model is run and a national level coal production estimate is obtained. The weekly coal model is refit every quarter after preliminary coal data are available.

When preliminary quarterly data become available, the monthly and weekly estimates are adjusted to conform to the quarterly figures. 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 nine months (three quarters) and weekly/monthly estimates for the fourth quarter. The fourth quarter estimates may or may not be revised when preliminary data become available in March of the following year, depending on the magnitude of the difference between the estimates and the preliminary data. In any event, all quarterly, monthly, and weekly production figures are adjusted to conform to the final annual production data published in the *Monthly Energy Review* in the fall of the following year.

Note 2. Coal Consumption. Coal consumption data are reported by major end-use sector. Forecast data (designated

by an “F”) are derived from forecasted values shown in the U.S. Energy Information Administration (EIA) *Short-Term Energy Outlook* (DOE/EIA-0202) table titled “U.S. Coal Supply and Demand: Base Case.” The monthly estimates are based on the quarterly values, which are released in March, June, September, and December. The estimates are revised quarterly as collected data become available from the data sources. Sector-specific information follows:

Residential and Commercial—Coal consumption by the residential and commercial sectors is reported to EIA for the two sectors combined; EIA estimates the amount consumed by the sectors individually. To create the estimates, it is first assumed that an occupied coal-heated housing unit consumes fuel at the same Btu rate as an oil-heated housing unit. Then, for the years in which data are available on the number of occupied housing units by heating source (1973–1981 and subsequent odd-numbered years), residential consumption of coal is estimated by the following steps: a ratio is created of the number of occupied housing units heated by coal to the number of occupied housing units heated by oil; that ratio is then multiplied by the Btu quantity of oil consumed by the residential sector to derive an estimate of the Btu quantity of coal consumed by the residential sector; and, finally, the amount estimated as the residential sector consumption is subtracted from the residential and commercial sectors’ combined consumption to derive the commercial sector’s estimated consumption. The 2007 share is applied to 2008 forward, and the other missing years’ shares are interpolated.

Industrial Coke Plants—Prior to 1980, monthly coke plant consumption data were taken directly from reported data. For 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. For 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. Beginning 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; non-metallic 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. Prior to 2008, quarterly consumption data for the other industrial sector were derived by adding beginning stocks at manufacturing plants to current receipts and subtracting ending stocks at manufacturing plants. In this calculation, current receipts are 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, and construction consumption data were included where appropriate. Beginning in 2008, quarterly consumption totals for other industrial coal include data for manufacturing and mining only. Over time, surveyed coal consumption data for agriculture, forestry, fishing, and construction dwindled to about 20,000 to 30,000 tons annually. Therefore, in 2008, EIA consolidated its programs by eliminating agriculture, forestry, fishing, and construction as surveyed sectors.

Electric Power Sector—Monthly consumption data for electric power plants are taken directly from reported data.

Note 3. Coal 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 U.S. Energy Information Administration (EIA) *Short-Term Energy Outlook* (DOE/EIA-0202) table titled “U.S. Coal Supply and Demand: Base Case.” The monthly estimates are based on the quarterly values (released in March, June, September, and December) or annual values. The estimates are revised as collected data become available from the data sources. Sector-specific information follows.

Producers and Distributors—Prior to 1998, quarterly stocks at producers and distributors were taken directly from reported data. Monthly data were estimated by using one-third of the current quarterly change to indicate the monthly change in stocks. Beginning in 1998, end-of-year stocks are taken from reported data. Monthly stocks are estimated by a model.

Residential and Commercial—Prior to 1980, stock estimates for the residential and commercial sector were taken directly from reported data. For 1980–2007, stock estimates were not collected. Beginning in 2008, quarterly stocks data are collected on Form EIA-3 (data for “Commercial and Institutional Coal Users”).

Industrial Coke Plants—Prior to 1980, monthly stocks at coke plants were taken directly from reported data. Beginning in 1980, 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. Beginning in 1983, other industrial coal stocks are estimated as indicated above for coke plants. Quarterly stocks are taken directly from data reported on Form EIA-3 and therefore include only manufacturing industries; data for agriculture, forestry, fishing, mining, and construction stocks are not available.

Electric Power Sector—Monthly stocks data at electric power plants are taken directly from reported data.

Note 4. Coal Forecast Values. Data values preceded by “F” in this section are forecast values. They are derived from EIA’s Short-Term Integrated Forecasting System (STIFS). The model is driven primarily by data and assumptions about key macroeconomic variables, the world oil price, and weather. The coal forecast relies on other variables as well, such as alternative fuel prices (natural gas and oil) and power generation by sources other than fossil fuels, including nuclear and hydroelectric power. Each month, EIA staff review the model output and make adjustments, if appropriate, based on their knowledge of developments in the coal industry.

The STIFS model results are published monthly in EIA’s *Short-Term Energy Outlook*, which is accessible on the Web at <http://www.eia.doe.gov/emeu/steo/pub/contents.html>.

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

Table 6.1 Sources

Production

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

October 1977 forward: U.S. Energy Information Administration (EIA), *Weekly Coal Production*.

Waste Coal Supplied

1989–1997: EIA, Form EIA-867, “Annual Nonutility Power Producer Report.”

1998–2000: EIA, Form EIA-860B, “Annual Electric Generator Report—Nonutility.”

2001–2003: EIA, Form EIA-906, “Power Plant Report,” and Form EIA-3, “Quarterly Coal Consumption and Quality Report—Manufacturing Plants.”

2004–2007: EIA, Form EIA-906, “Power Plant Report,” Form EIA-920, “Combined Heat and Power Plant Report,” and Form EIA-3, “Quarterly Coal Consumption and Quality Report—Manufacturing Plants.”

2008 forward: EIA, Form EIA-923, “Power Plant Operations Report,” and Form EIA-3, “Quarterly Coal Consumption and Quality Report, Manufacturing and Transformation/Processing Coal Plants and Commercial and Institutional Coal Users”; and, for forecast values, EIA, Short-Term Integrated Forecasting System.

Imports and Exports

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

Stock Change

Calculated from data in Table 6.3.

Losses and Unaccounted for

Calculated as the sum of production, imports, and waste coal supplied, minus exports, stock change, and consumption.

Consumption

Table 6.2.

Table 6.2 Sources

Residential and Commercial Total

Coal consumption by the residential and commercial sectors combined is reported to the U.S. Energy Information Administration (EIA). EIA estimates the sectors individually using the method described in Note 2, “Consumption,” at the end of Section 6. Data for the residential and commercial sectors combined are from:

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.”

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

1998–2007: DOI, Mine Safety and Health Administration, Form 7000-2, “Quarterly Mine Employment and Coal Production.”

2008 forward: EIA, Form EIA-3, “Quarterly Coal Consumption and Quality Report, Manufacturing and Transformation/Processing Coal Plants and Commercial and Institutional Coal Users” (data for “Commercial and Institutional Coal Users”); and, for forecast values, EIA, Short-Term Integrated Forecasting System.

Commercial CHP

Table 7.4c.

Commercial Other

Calculated as “Commercial Total” minus “Commercial CHP.”

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”; and, for forecast values, EIA, Short-Term Integrated Forecasting System.

Other Industrial Total

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

October 1977–1979: EIA, Form EIA-3, “Monthly Coal Consumption Report—Manufacturing Plants.”

1980–1997: EIA, Form EIA-3, “Quarterly Coal Consumption Report—Manufacturing Plants,” and Form EIA-6, “Coal Distribution Report,” quarterly.

1998–2007: EIA, Form EIA-3, “Quarterly Coal Consumption Report—Manufacturing Plants,” Form EIA-6A, “Coal Distribution Report,” annual, and Form EIA-7A, “Coal Production Report,” annual.

2008 forward: EIA, Form EIA-3, “Quarterly Coal Consumption and Quality Report, Manufacturing and Transformation/Processing Coal Plants and Commercial and Institutional Coal Users,” and Form EIA-7A, “Coal Production Report,” annual; and, for forecast values, EIA, Short-Term Integrated Forecasting System.

Other Industrial CHP

Table 7.4c.

Other Industrial Non-CHP

Calculated as “Other Industrial Total” minus “Other Industrial CHP.”

Transportation

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

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

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

Electric Power

Table 7.4b.

Table 6.3 Sources

Producers and Distributors

1973–1979: U.S. Department of the Interior (DOI), Bureau of Mines (BOM), Form 6-1419Q, “Distribution of Bituminous Coal and Lignite Shipments.”

1980–1997: U.S. Energy Information Administration

(EIA), Form EIA-6, "Coal Distribution Report," quarterly.
1998-2007: EIA, Form EIA-6A, "Coal Distribution Report," annual.
2008 forward: EIA, Form EIA-7A, "Coal Production Report," annual, and Form EIA-8A, "Coal Stocks Report," annual; and, for forecast values, EIA, Short-Term Integrated Forecasting System.

Residential and Commercial

1973-1976: DOI, 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."
2008 forward: EIA, Form EIA-3, "Quarterly Coal Consumption and Quality Report, Manufacturing and Transformation/Processing Coal Plants and Commercial and Institutional Coal Users" (data for "Commercial and Institutional Coal Users"); and, for forecast values, EIA, Short-Term Integrated Forecasting System.

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."
1981-1984: EIA, Form EIA 5/5A, "Coke Plant Report—Quarterly/Annual Supplement."
1985 forward: EIA, Form EIA-5, "Coke Plant Report—Quarterly"; and, for forecast values, EIA, Short-Term Integrated Forecasting System.

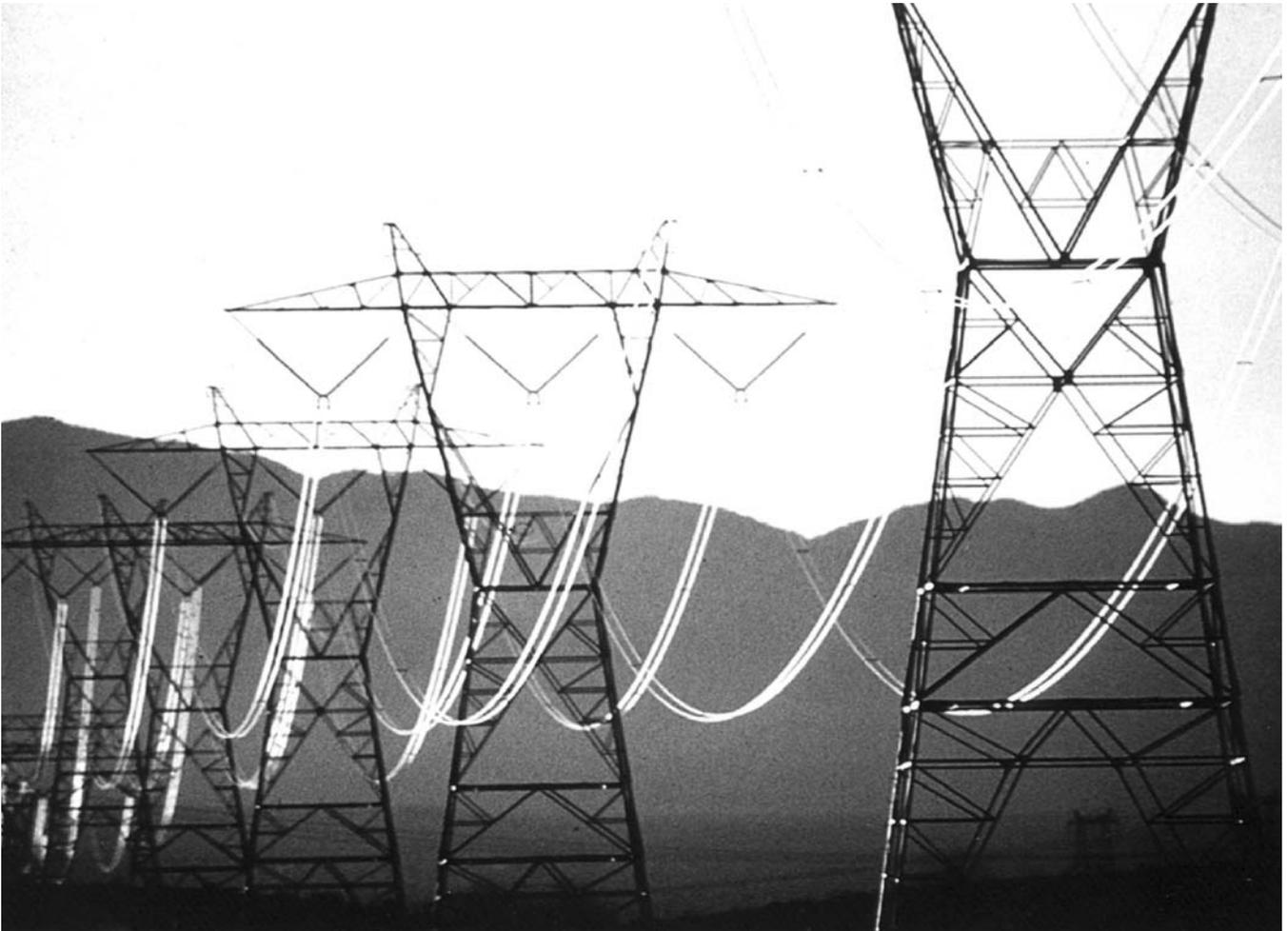
Industrial Other

1973-September 1977: DOI, BOM, *Minerals Yearbook* and *Minerals Industry Surveys*.
October 1977-1979: EIA, Form EIA-3, "Monthly Coal Consumption Report—Manufacturing Plants."
1998-2007: EIA, Form EIA-3, "Quarterly Coal Consumption Report—Manufacturing Plants."
2008 forward: EIA, Form EIA-3, "Quarterly Coal Consumption and Quality Report, Manufacturing and Transformation/Processing Coal Plants and Commercial and Institutional Coal Users"; and, for forecast values, EIA, Short-Term Integrated Forecasting System.

Electric Power

Table 7.5.

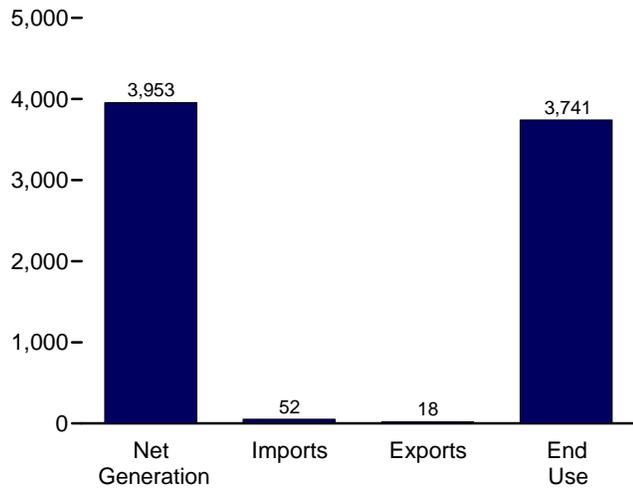
Electricity



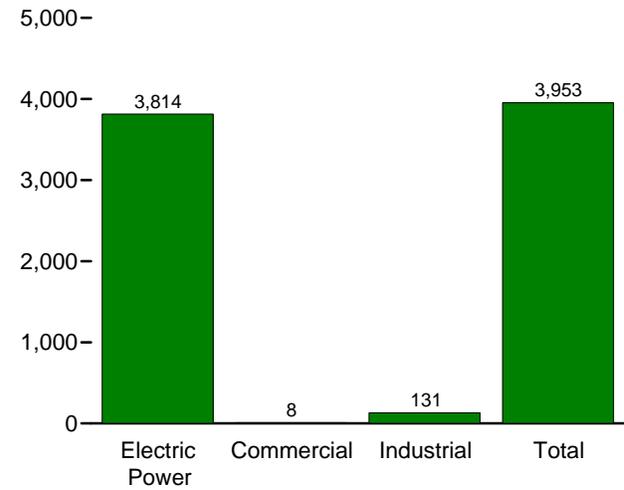
High-tension power lines and towers. Source: U.S. Department of Energy.

Figure 7.1 Electricity Overview
(Billion Kilowatthours)

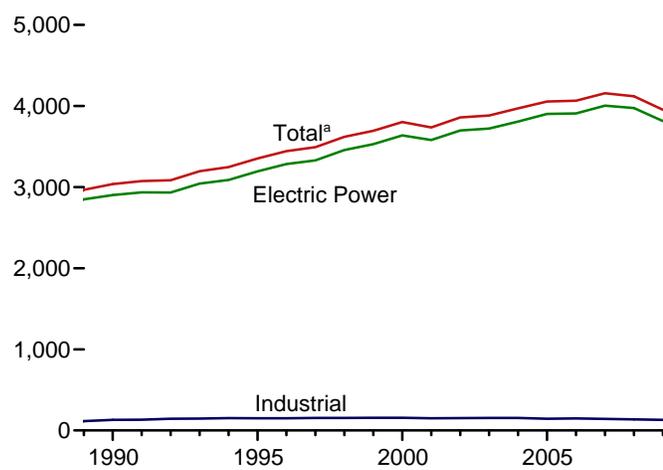
Overview, 2009



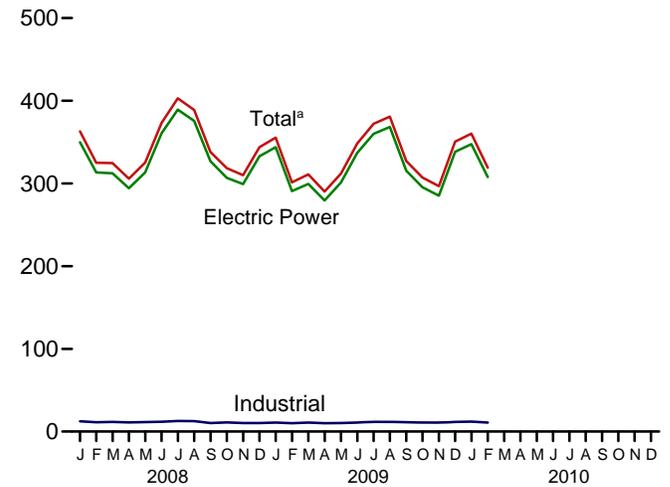
Net Generation, 2009



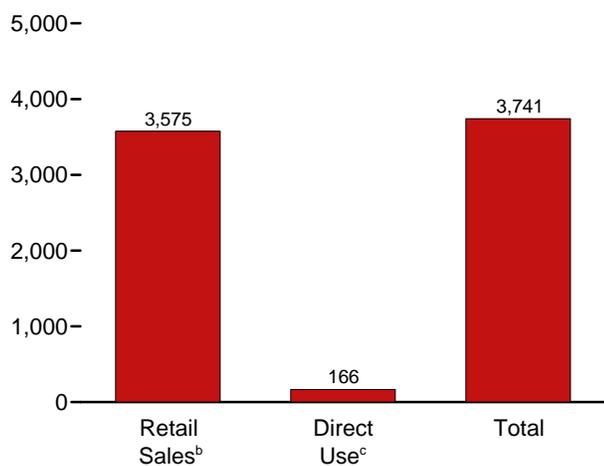
Net Generation by Sector, 1989-2009



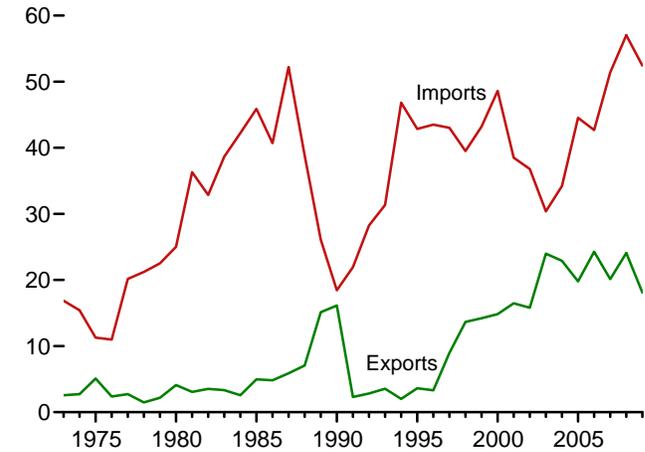
Net Generation by Sector, Monthly



End Use, 2009



Trade, 1973-2009



^aIncludes commercial sector.

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

^cSee "Direct Use" in Glossary.

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

Source: Table 7.1.

Table 7.1 Electricity Overview
(Billion Kilowatthours)

	Net Generation				Trade			T&D Losses ^e and Unaccounted for ^f	End Use		
	Electric Power Sector ^a	Com- mercial Sector ^b	Indus- trial ^c	Total	Imports ^d	Exports ^d	Net Imports ^d		Retail Sales ^g	Direct Use ^h	Total
1973 Total	1,861	NA	3	1,864	17	3	14	165	1,713	NA	1,713
1975 Total	1,918	NA	3	1,921	11	5	6	180	1,747	NA	1,747
1980 Total	2,286	NA	3	2,290	25	4	21	216	2,094	NA	2,094
1985 Total	2,470	NA	3	2,473	46	5	41	190	2,324	NA	2,324
1990 Total	2,901	6	131	3,038	18	16	2	203	2,713	125	2,837
1995 Total	3,194	8	151	3,353	43	4	39	229	3,013	151	3,164
1996 Total	3,284	9	151	3,444	43	3	40	231	3,101	153	3,254
1997 Total	3,329	9	154	3,492	43	9	34	224	3,146	156	3,302
1998 Total	3,457	9	154	3,620	40	14	26	221	3,264	161	3,425
1999 Total	3,530	9	156	3,695	43	14	29	240	3,312	172	3,484
2000 Total	3,638	8	157	3,802	49	15	34	244	3,421	171	3,592
2001 Total	3,580	7	149	3,737	39	16	22	202	3,394	163	3,557
2002 Total	3,698	7	153	3,858	37	16	21	248	3,465	166	3,632
2003 Total	3,721	7	155	3,883	30	24	6	228	3,494	168	3,662
2004 Total	3,808	8	154	3,971	34	23	11	266	3,547	168	3,716
2005 Total	3,902	8	145	4,055	45	20	25	269	3,661	150	3,811
2006 Total	3,908	8	148	4,065	43	24	18	266	3,670	147	3,817
2007 Total	4,005	8	143	4,157	51	20	31	264	3,765	159	3,924
2008 January	350	1	12	363	5	2	3	24	326	E 16	342
February	313	1	11	325	5	2	3	9	305	E 14	319
March	312	1	12	325	5	3	2	18	295	E 15	309
April	294	1	11	306	4	1	3	17	278	E 14	292
May	313	1	11	325	5	3	2	25	288	E 14	303
June	361	1	12	373	6	3	3	33	328	E 15	343
July	389	1	13	403	6	2	4	31	360	E 16	377
August	376	1	13	389	6	1	4	25	352	E 16	368
September	327	1	10	338	5	2	3	5	322	E 13	336
October	307	1	11	319	4	2	2	14	292	E 14	306
November	299	1	10	310	3	2	1	20	278	E 13	291
December	333	1	10	344	3	1	2	25	308	E 13	321
Total	3,974	8	137	4,119	57	24	33	246	3,733	173	3,906
2009 January	344	1	11	355	4	2	2	24	320	E 14	334
February	291	1	10	301	4	2	2	6	285	E 13	298
March	299	1	11	311	3	2	1	16	282	E 14	296
April	279	1	10	290	3	1	2	15	264	E 13	277
May	301	1	10	312	4	1	3	28	273	E 13	286
June	337	1	11	348	5	2	3	34	303	E 14	317
July	360	1	12	372	6	1	4	26	336	E 15	351
August	368	1	12	381	6	1	5	27	343	E 15	358
September	315	1	11	327	4	1	3	7	309	E 14	323
October	295	1	11	307	5	1	3	11	285	E 14	299
November	285	1	11	297	4	1	R 3	R 20	266	E 14	280
December	338	1	12	351	5	1	3	32	308	E 15	322
Total	3,814	8	131	3,953	52	18	34	246	3,575	E 166	3,741
2010 January	348	1	12	360	5	1	4	18	331	E 15	346
February	308	1	11	319	4	1	3	11	297	E 14	311
2-Month Total	655	1	23	679	10	2	8	30	628	E 29	657
2009 2-Month Total	635	1	21	657	8	4	4	29	605	E 27	632
2008 2-Month Total	663	1	24	688	10	3	6	33	631	E 30	661

^a Electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public. Through 1988, data are for electric utilities only; beginning in 1989, data are for electric utilities and independent power producers.

^b Commercial combined-heat-and-power (CHP) and commercial electricity-only plants.

^c Industrial combined-heat-and-power (CHP) and industrial electricity-only plants. Through 1988, data are for industrial hydroelectric power only.

^d Electricity transmitted across U.S. borders. Net imports equal imports minus exports.

^e Transmission and distribution losses (electricity losses that occur between the point of generation and delivery to the customer). See Note 2, "Electrical System Energy Losses," at end of Section 2.

^f Data collection frame differences and nonsampling error.

^g Electricity retail sales to ultimate customers by electric utilities and, beginning in 1996, other energy service providers.

^h Use of electricity that is 1) self-generated, 2) produced by either the same entity that consumes the power or an affiliate, and 3) used in direct support of a service or industrial process located within the same facility or group of facilities that house the generating equipment. Direct use is exclusive of station use.

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

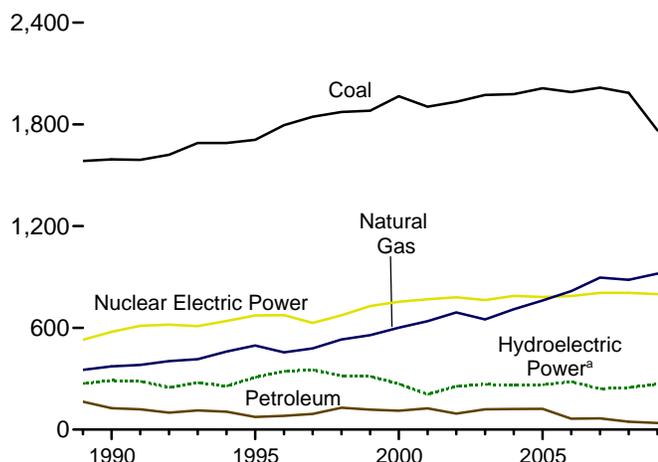
Notes: • See Note, "Classification of Power Plants Into Energy-Use Sectors," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/elect.html> for all available data beginning in 1973.

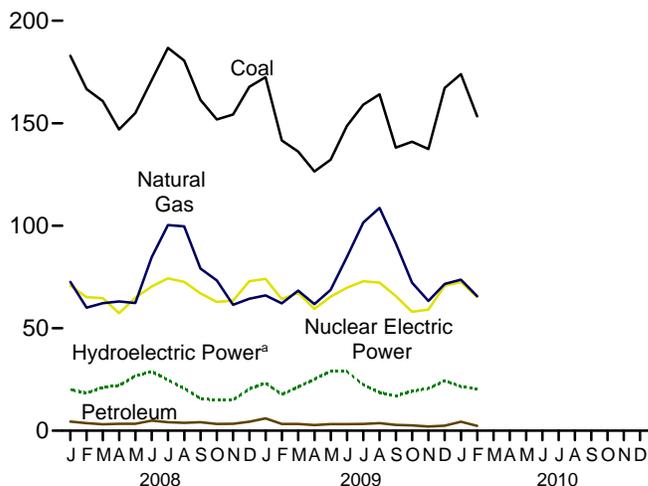
Sources: See end of section.

Figure 7.2 Electricity Net Generation
(Billion Kilowatthours)

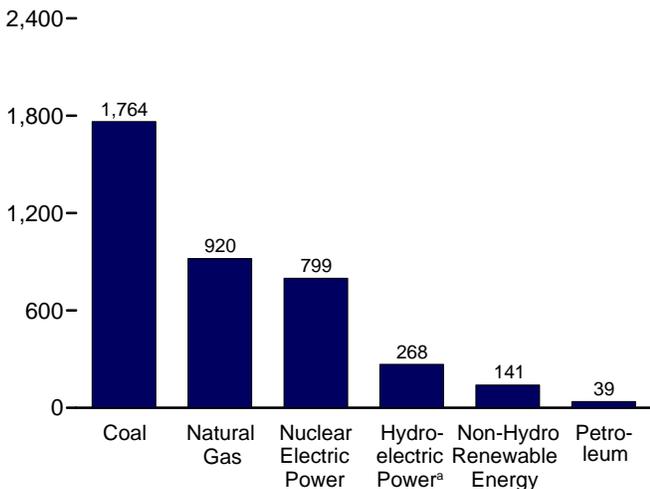
Total (All Sectors), Major Sources, 1989-2009



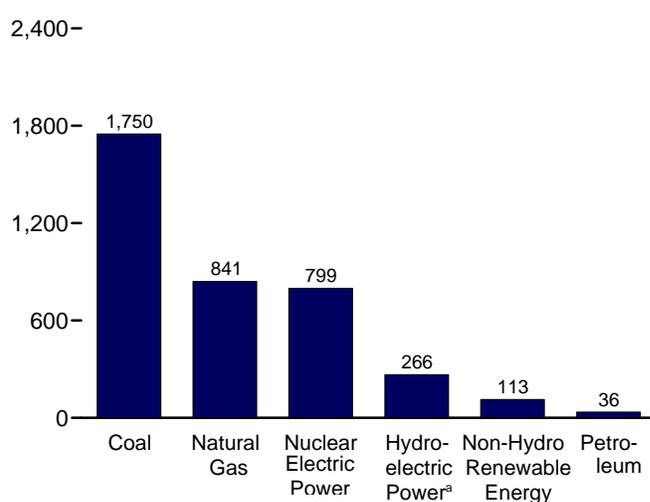
Total (All Sectors), Major Sources, Monthly



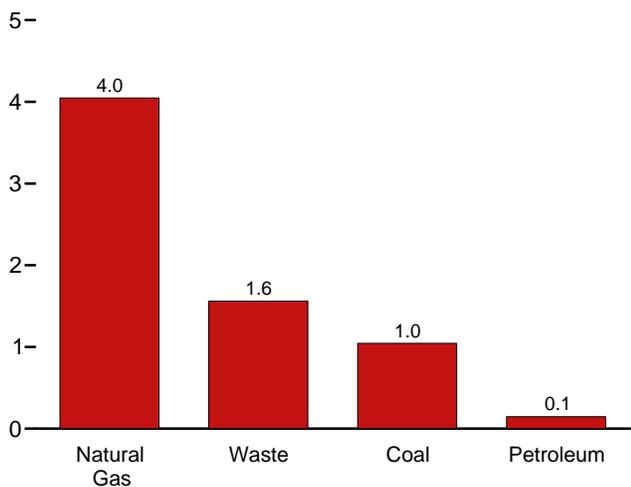
Total (All Sectors), Major Sources, 2009



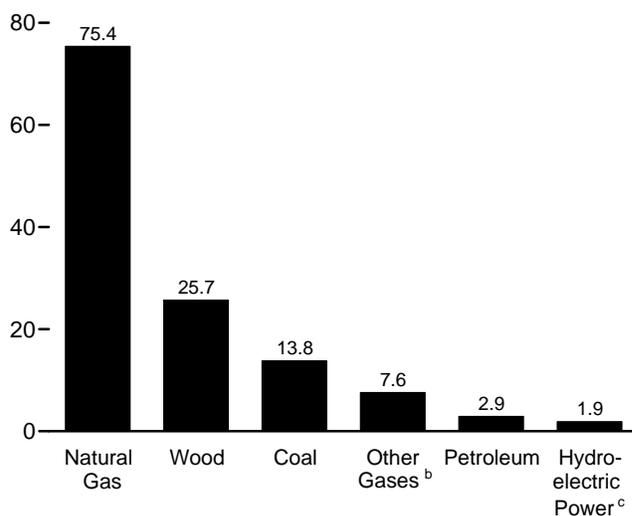
Electric Power Sector, Major Sources, 2009



Commercial Sector, Major Sources, 2009



Industrial Sector, Major Sources, 2009



^aConventional and pumped storage hydroelectric power.

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

^cConventional hydroelectric power.

Web Page: <http://www.eia.doe.gov/emeu/mer/elect.html>.
Sources: Tables 7.2a, 7.2b, and 7.2c.

Table 7.2a Electricity Net Generation: Total (All Sectors)
(Sum of Tables 7.2b and 7.2c; Million Kilowatthours)

	Fossil Fuels				Nuclear Electric Power	Hydroelectric Pumped Storage ^e	Renewable Energy					Total ^j	
	Coal ^a	Petroleum ^b	Natural Gas ^c	Other Gases ^d			Conventional Hydroelectric Power ^f	Biomass		Geo-thermal	Solar/PV ⁱ		Wind
								Wood ^g	Waste ^h				
1973 Total	847,651	314,343	340,858	NA	83,479	(f)	275,431	130	198	1,966	NA	NA	1,864,057
1975 Total	852,786	289,095	299,778	NA	172,505	(f)	303,153	18	174	3,246	NA	NA	1,920,755
1980 Total	1,161,562	245,994	346,240	NA	251,116	(f)	279,182	275	158	5,073	NA	NA	2,289,600
1985 Total	1,402,128	100,202	291,946	NA	383,691	(f)	284,311	743	640	9,325	11	6	2,473,002
1990 Total ^k	1,594,011	126,460	372,765	10,383	576,862	-3,508	292,866	32,522	13,260	15,434	367	2,789	3,037,827
1995 Total	1,709,426	74,554	496,058	13,870	673,402	-2,725	310,833	36,521	20,405	13,378	497	3,164	3,353,487
1996 Total	1,795,196	81,411	455,056	14,356	674,729	-3,088	347,162	36,800	20,911	14,329	521	3,234	3,444,188
1997 Total	1,845,016	92,555	479,399	13,351	628,644	-4,040	356,453	36,948	21,709	14,726	511	3,288	3,492,172
1998 Total	1,873,516	128,800	531,257	13,492	673,702	-4,467	323,336	36,338	22,448	14,774	502	3,026	3,620,295
1999 Total	1,881,087	118,061	556,396	14,126	728,254	-6,097	319,536	37,041	22,572	14,827	495	4,488	3,694,810
2000 Total	1,966,265	111,221	601,038	13,955	753,893	-5,539	275,573	37,595	23,131	14,093	493	5,593	3,802,105
2001 Total	1,903,956	124,880	639,129	9,039	768,826	-8,823	216,961	35,200	14,548	13,741	543	6,737	3,736,644
2002 Total	1,933,130	94,567	691,006	11,463	780,064	-8,743	264,329	38,665	15,044	14,491	555	10,354	3,858,452
2003 Total	1,973,737	119,406	649,908	15,600	763,733	-8,535	275,806	37,529	15,812	14,424	534	11,187	3,833,185
2004 Total	1,978,301	121,145	710,100	15,252	788,528	-8,488	268,417	38,117	15,421	14,811	575	14,144	3,970,555
2005 Total	2,012,873	122,225	760,960	13,464	781,966	-6,558	270,321	38,856	15,420	14,692	550	17,811	4,055,423
2006 Total	2,012,511	64,166	816,441	14,177	787,219	-6,558	289,246	38,762	16,099	14,568	508	26,589	4,064,702
2007 Total	2,016,456	65,739	896,590	13,453	806,425	-6,896	247,510	39,014	16,525	14,637	612	34,450	4,156,745
2008 January	182,876	4,498	72,600	1,063	70,735	-746	20,779	3,338	1,407	1,213	16	4,273	362,998
February	166,666	3,669	60,042	972	65,130	-451	18,789	3,010	1,364	1,090	36	3,852	325,106
March	160,743	3,151	62,171	1,049	64,716	-553	21,669	3,123	1,472	1,261	75	4,782	324,630
April	146,983	3,400	63,046	1,021	57,333	-132	22,234	2,930	1,504	1,229	94	5,225	305,865
May	154,916	3,398	62,270	1,044	64,826	-587	27,221	2,927	1,475	1,270	99	5,340	325,245
June	171,043	4,962	84,620	1,132	70,319	-372	29,177	3,114	1,502	1,270	128	5,140	373,109
July	186,733	4,157	100,321	1,174	74,318	-799	25,555	3,327	1,608	1,289	111	4,008	402,900
August	180,576	3,811	99,673	1,147	72,617	-648	21,229	3,342	1,529	1,283	105	3,264	388,987
September	161,356	4,171	79,136	823	67,054	-517	16,178	3,059	1,427	1,244	93	3,111	338,056
October	151,841	3,286	73,283	806	62,820	-497	15,470	3,064	1,490	1,287	60	4,756	318,547
November	154,281	3,345	61,454	721	63,408	-489	15,668	3,077	1,449	1,244	29	4,994	310,046
December	167,786	4,394	64,364	753	72,931	-498	20,861	2,988	1,506	1,272	19	6,616	343,898
Total	1,985,801	46,243	882,981	11,707	806,208	-6,288	254,831	37,300	17,734	14,951	864	55,363	4,119,388
2009 January	172,498	6,013	65,991	801	74,102	-501	23,829	3,067	1,442	1,313	5	6,018	355,379
February	141,574	3,284	62,104	774	64,227	-243	17,887	2,809	1,343	1,191	28	5,675	301,443
March	136,167	3,328	68,308	820	67,241	-315	21,692	2,889	1,547	1,334	71	6,938	310,941
April	126,461	2,785	61,770	753	59,408	-272	25,418	2,707	1,556	1,205	91	7,294	290,120
May	132,204	3,228	68,697	763	65,375	-349	29,419	2,744	1,498	1,257	101	6,094	311,996
June	148,679	3,248	84,703	872	69,735	-226	29,130	3,020	1,543	1,227	97	5,405	348,379
July	159,099	3,337	101,570	966	72,949	-491	22,930	3,218	1,593	1,265	111	4,700	372,249
August	164,078	3,649	108,724	1,036	72,245	-613	19,215	3,333	1,608	1,261	105	5,243	380,890
September	138,087	2,859	91,413	1,037	65,662	-237	17,265	3,009	1,477	1,242	85	4,367	327,175
October	140,992	2,590	72,204	977	58,021	-385	19,650	3,057	1,485	1,269	61	6,326	307,156
November	137,407	2,087	63,325	935	59,069	-330	20,905	3,195	1,452	1,292	36	6,430	296,735
December	167,241	2,418	71,570	963	70,710	-383	24,792	3,195	1,549	1,352	17	6,270	350,647
Total	1,764,486	38,827	920,378	10,698	798,745	-4,346	272,131	36,243	18,093	15,210	808	70,761	3,953,111
2010 January	173,965	4,396	73,685	922	72,534	-537	22,071	3,227	1,432	1,350	8	6,355	360,302
February	153,388	2,360	65,587	823	65,247	-96	20,448	3,003	1,266	1,181	28	5,110	319,142
2-Month Total	327,352	6,757	139,272	1,745	137,781	-633	42,519	6,230	2,698	2,531	36	11,465	679,444
2009 2-Month Total	314,072	9,298	128,095	1,575	138,330	-745	41,716	5,876	2,785	2,505	33	11,693	656,822
2008 2-Month Total	349,542	8,167	132,642	2,036	135,865	-1,197	39,568	6,348	2,771	2,304	52	8,125	688,104

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

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

^c Natural gas, plus a small amount of supplemental gaseous fuels.

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

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

^f Through 1989, hydroelectric pumped storage is included in "Conventional Hydroelectric Power."

^g Wood and wood-derived fuels.

^h Municipal solid waste from biogenic sources, landfill gas, sludge waste, agricultural byproducts, and other biomass. Through 2000, also includes non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

ⁱ Solar thermal and photovoltaic (PV) energy.

^j Includes batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, miscellaneous technologies, and, beginning in 2001, non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

^k Through 1988, all data except hydroelectric are for electric utilities only; hydroelectric data through 1988 include industrial plants as well as electric utilities. Beginning in 1989, data are for electric utilities, independent power producers, commercial plants, and industrial plants.

R=Revised. NA=Not available.

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

Web Page: See <http://www.eia.doe.gov/emeu/mer/elect.html> for all available data beginning in 1973.

Sources: See sources for Tables 7.2b and 7.2c.

Table 7.2b Electricity Net Generation: Electric Power Sector
(Subset of Table 7.2a; Million Kilowatthours)

	Fossil Fuels				Nuclear Electric Power	Hydro-electric Pumped Storage ^e	Renewable Energy						Total ^j
	Coal ^a	Petroleum ^b	Natural Gas ^c	Other Gases ^d			Conventional Hydro-electric Power ^f	Biomass		Geo-thermal	Solar/PV ⁱ	Wind	
								Wood ^g	Waste ^h				
1973 Total	847,651	314,343	340,858	NA	83,479	{ f }	272,083	130	198	1,966	NA	NA	1,860,710
1975 Total	852,786	289,095	299,778	NA	172,505	{ f }	300,047	18	174	3,246	NA	NA	1,917,649
1980 Total	1,161,562	245,994	346,240	NA	251,116	{ f }	276,021	275	158	5,073	NA	NA	2,286,439
1985 Total	1,402,128	100,202	291,946	NA	383,691	{ f }	281,149	743	640	9,325	11	6	2,469,841
1990 Total ^k	1,572,109	118,864	309,486	621	576,862	-3,508	289,753	7,032	11,500	15,434	367	2,789	2,901,322
1995 Total	1,686,056	68,146	419,179	1,927	673,402	-2,725	305,410	7,597	17,986	13,378	497	3,164	3,194,230
1996 Total	1,771,973	74,783	378,757	1,341	674,729	-3,088	341,159	8,386	17,816	14,329	521	3,234	3,284,141
1997 Total	1,820,762	86,479	399,596	1,533	628,644	-4,040	350,648	8,680	18,485	14,726	511	3,288	3,329,375
1998 Total	1,850,193	122,211	449,293	2,315	673,702	-4,467	317,867	8,608	19,233	14,774	502	3,026	3,457,416
1999 Total	1,858,618	111,539	472,996	1,607	728,254	-6,097	314,663	8,961	19,493	14,827	495	4,488	3,529,982
2000 Total	1,943,111	105,192	517,978	2,028	753,893	-5,539	271,338	8,916	20,307	14,093	493	5,593	3,637,529
2001 Total	1,882,826	119,149	554,940	586	768,826	-8,823	213,749	8,294	12,944	13,741	543	6,737	3,580,053
2002 Total	1,910,613	89,733	607,683	1,970	780,064	-8,743	260,491	9,009	13,145	14,491	555	10,354	3,698,458
2003 Total	1,952,714	113,697	567,303	2,647	763,733	-8,535	271,512	9,528	13,808	14,424	534	11,187	3,721,159
2004 Total	1,957,188	114,678	627,172	3,568	788,528	-8,488	265,064	9,736	13,062	14,811	575	14,144	3,808,360
2005 Total	1,992,054	116,482	683,829	3,777	781,986	-6,558	267,040	10,570	13,031	14,692	550	17,811	3,902,192
2006 Total	1,969,737	59,708	734,417	4,254	787,219	-6,558	286,254	10,341	13,927	14,568	508	26,589	3,908,077
2007 Total	1,998,390	61,306	814,752	4,042	806,425	-6,896	245,843	10,711	14,294	14,637	612	34,450	4,005,343
2008 January	181,337	4,145	65,197	293	70,735	-746	20,611	960	1,229	1,213	16	4,273	349,836
February	165,343	3,377	53,460	247	65,130	-451	18,627	872	1,169	1,090	36	3,852	313,292
March	159,284	2,856	55,499	274	64,716	-553	21,485	885	1,285	1,261	75	4,782	312,410
April	145,587	3,141	56,765	280	57,333	-132	22,050	754	1,301	1,229	94	5,225	294,203
May	153,473	3,155	55,665	312	64,826	-587	27,046	753	1,283	1,270	99	5,340	313,216
June	169,600	4,676	77,685	325	70,319	-372	29,043	883	1,309	1,270	128	5,140	360,612
July	185,208	3,904	92,534	342	74,318	-799	25,429	988	1,384	1,289	111	4,008	389,318
August	179,082	3,554	92,025	316	72,617	-648	21,111	983	1,325	1,283	105	3,264	375,612
September	159,933	3,888	73,270	193	67,054	-517	16,081	894	1,246	1,244	93	3,111	327,021
October	150,464	3,030	66,624	221	62,820	-497	15,372	802	1,286	1,287	60	4,756	306,769
November	153,016	3,105	55,482	172	63,408	-489	15,546	911	1,253	1,244	29	4,994	299,222
December	166,512	4,050	58,166	224	72,931	-498	20,696	953	1,308	1,272	19	6,616	332,839
Total	1,968,838	42,881	802,372	3,200	806,208	-6,288	253,096	10,638	15,379	14,951	864	55,363	3,974,349
2009 January	171,125	5,649	59,500	224	74,102	-501	23,648	962	1,250	1,313	5	6,018	343,878
February	140,382	3,000	55,924	215	64,227	-243	17,738	897	1,195	1,191	28	5,675	290,761
March	134,933	3,066	61,709	242	67,241	-315	21,502	805	1,351	1,334	71	6,938	299,472
April	125,289	2,526	55,664	233	59,408	-272	25,224	705	1,373	1,205	91	7,294	279,350
May	131,022	2,960	62,502	234	65,375	-349	29,218	767	1,306	1,257	101	6,094	301,083
June	147,429	2,985	78,112	257	69,735	-226	28,943	956	1,345	1,227	97	5,405	336,868
July	157,805	3,098	94,529	295	72,949	-491	22,793	944	1,387	1,265	111	4,700	360,019
August	162,732	3,386	101,573	283	72,245	-613	19,083	1,013	1,390	1,261	105	5,243	368,336
September	136,856	2,617	84,725	303	65,662	-237	17,168	855	1,273	1,242	85	4,367	315,490
October	139,730	2,399	65,535	286	58,021	-385	19,509	819	1,297	1,269	61	6,326	295,438
November	136,342	1,893	56,782	263	59,069	-330	20,771	843	1,252	1,292	36	6,430	285,206
December	165,980	2,214	64,390	272	70,710	-383	24,605	999	1,356	1,352	17	6,270	338,398
Total	1,749,626	35,793	840,946	3,108	798,745	-4,346	270,202	10,565	15,776	15,210	808	70,761	3,814,298
2010 January	172,318	4,139	66,422	276	72,534	-537	21,898	1,003	1,246	1,350	8	6,355	347,584
February	151,840	2,153	59,129	249	65,247	-96	20,280	894	1,113	1,181	28	5,110	307,643
2-Month Total	324,157	6,292	125,551	526	137,781	-633	42,178	1,897	2,359	2,531	36	11,465	655,227
2009 2-Month Total	311,507	8,649	115,425	439	138,330	-745	41,386	1,859	2,445	2,505	33	11,693	634,639
2008 2-Month Total	346,680	7,522	118,656	540	135,865	-1,197	39,238	1,832	2,398	2,304	52	8,125	663,128

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

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

^c Natural gas, plus a small amount of supplemental gaseous fuels.

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

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

^f Through 1989, hydroelectric pumped storage is included in "Conventional Hydroelectric Power."

^g Wood and wood-derived fuels.

^h Municipal solid waste from biogenic sources, landfill gas, sludge waste, agricultural byproducts, and other biomass. Through 2000, also includes non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

ⁱ Solar thermal and photovoltaic (PV) energy.

^j Includes batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, miscellaneous technologies, and, beginning in 2001, non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

^k Through 1988, data are for electric utilities only. Beginning in 1989, data are for electric utilities and independent power producers.

R=Revised. NA=Not available.

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

Web Page: See <http://www.eia.doe.gov/emeu/mer/elect.html> for all available data beginning in 1973.

Sources: See end of section.

Table 7.2c Electricity Net Generation: Commercial and Industrial Sectors
(Subset of Table 7.2a; Million Kilowatthours)

	Commercial Sector ^a					Industrial Sector ^b							
	Coal ^c	Petroleum ^d	Natural Gas ^e	Biomass	Total ^g	Coal ^c	Petroleum ^d	Natural Gas ^e	Other Gases ^h	Hydroelectric Power ⁱ	Biomass		Total ^k
				Waste ^f							Wood ^j	Waste ^f	
1973 Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	3,347	NA	NA	3,347
1975 Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	3,106	NA	NA	3,106
1980 Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	3,161	NA	NA	3,161
1985 Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	3,161	NA	NA	3,161
1990 Total	796	589	3,272	812	5,837	21,107	7,008	60,007	9,641	2,975	25,379	949	130,830
1995 Total	998	379	5,162	1,519	8,232	22,372	6,030	71,717	11,943	5,304	28,868	900	151,025
1996 Total	1,051	369	5,249	2,176	9,030	22,172	6,260	71,049	13,015	5,878	28,354	919	151,017
1997 Total	1,040	427	4,725	2,342	8,701	23,214	5,649	75,078	11,814	5,685	28,225	882	154,097
1998 Total	985	383	4,879	2,335	8,748	22,337	6,206	77,085	11,170	5,349	27,693	880	154,132
1999 Total	995	434	4,607	2,393	8,563	21,474	6,088	78,793	12,519	4,758	28,060	686	156,264
2000 Total	1,097	432	4,262	1,985	7,903	22,056	5,597	78,798	11,927	4,135	28,652	839	156,673
2001 Total	995	438	4,434	1,007	7,416	20,135	5,293	79,755	8,454	3,145	26,888	596	149,175
2002 Total	992	431	4,310	1,053	7,415	21,525	4,403	79,013	9,493	3,825	29,643	846	152,580
2003 Total	1,206	423	3,899	1,289	7,496	19,817	5,285	78,705	12,953	4,222	27,988	715	154,530
2004 Total	1,340	499	3,969	1,562	8,270	19,773	5,967	78,959	11,684	3,248	28,367	797	153,925
2005 Total	1,353	375	4,249	1,657	8,492	19,466	5,368	72,882	9,687	3,195	28,271	733	144,739
2006 Total	1,310	235	4,355	1,599	8,371	19,464	4,223	77,669	9,923	2,899	28,400	572	148,254
2007 Total	1,371	189	4,257	1,599	8,273	16,694	4,243	77,580	9,411	1,590	28,287	631	143,128
2008 January	117	20	395	117	709	1,422	333	7,008	770	163	2,376	61	12,453
February	107	14	346	114	636	1,217	278	6,236	725	158	2,136	82	11,178
March	79	9	352	117	619	1,380	286	6,319	775	174	2,237	70	11,601
April	88	8	307	135	614	1,308	251	5,974	741	174	2,174	67	11,049
May	96	8	292	137	609	1,347	235	6,314	732	170	2,173	55	11,420
June	116	12	330	139	675	1,327	273	6,605	807	128	2,229	55	11,822
July	122	17	384	134	728	1,403	236	7,402	832	122	2,337	91	12,855
August	117	9	390	132	715	1,378	248	7,258	831	117	2,358	72	12,660
September	106	7	366	129	675	1,317	276	5,500	630	96	2,163	52	10,360
October	101	8	344	126	642	1,276	248	6,315	585	95	2,261	77	11,137
November	99	11	320	128	623	1,166	229	5,653	549	119	2,165	68	10,201
December	112	18	360	127	681	1,161	326	5,838	529	160	2,033	71	10,378
Total	1,261	142	4,188	1,534	7,926	15,703	3,219	76,421	8,507	1,676	26,641	821	137,113
2009 January	108	30	357	125	681	1,265	335	6,134	577	172	2,104	66	10,821
February	85	12	333	98	580	1,107	273	5,847	559	142	1,910	50	10,102
March	85	10	346	132	648	1,148	252	6,253	578	180	2,082	64	10,820
April	75	11	338	122	621	1,096	248	5,768	520	185	2,001	62	10,149
May	75	13	321	136	624	1,107	255	5,874	529	192	1,976	56	10,289
June	76	9	328	137	627	1,174	253	6,264	614	179	2,062	60	10,884
July	88	10	356	138	662	1,206	229	6,685	671	136	2,273	69	11,568
August	101	14	364	146	698	1,245	249	6,787	754	132	2,318	72	11,856
September	85	10	316	135	613	1,146	232	6,372	734	96	2,152	68	11,071
October	80	11	328	127	614	1,181	180	6,341	691	138	2,236	61	11,104
November	85	8	308	136	611	979	186	6,234	672	129	2,350	64	10,918
December	102	9	354	127	657	1,159	195	6,826	692	180	2,194	67	11,592
Total	1,044	148	4,047	1,560	7,638	13,816	2,886	75,385	7,590	1,860	25,658	758	131,174
2010 January	114	10	353	123	664	1,534	247	6,910	645	167	2,222	63	12,055
February	99	8	313	95	568	1,448	200	6,146	574	162	2,107	58	10,931
2-Month Total	213	18	665	218	1,231	2,982	447	13,056	1,219	328	4,329	120	22,986
2009 2-Month Total	193	42	689	223	1,261	2,372	607	11,981	1,136	315	4,013	116	20,923
2008 2-Month Total	224	34	742	231	1,345	2,639	611	13,244	1,495	321	4,512	143	23,631

^a Commercial combined-heat-and-power (CHP) and commercial electricity-only plants.

^b Industrial combined-heat-and-power (CHP) and industrial electricity-only plants.

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

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

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

^f Municipal solid waste from biogenic sources, landfill gas, sludge waste, agricultural byproducts, and other biomass. Through 2000, also includes non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

^g Includes a small amount of conventional hydroelectric power, other gases, photovoltaic (PV) energy, wood, and other, which are not separately displayed.

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

ⁱ Conventional hydroelectric power.

^j Wood and wood-derived fuels.

^k Includes batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, miscellaneous technologies, and, beginning in 2001, non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

R=Revised. NA=Not available.

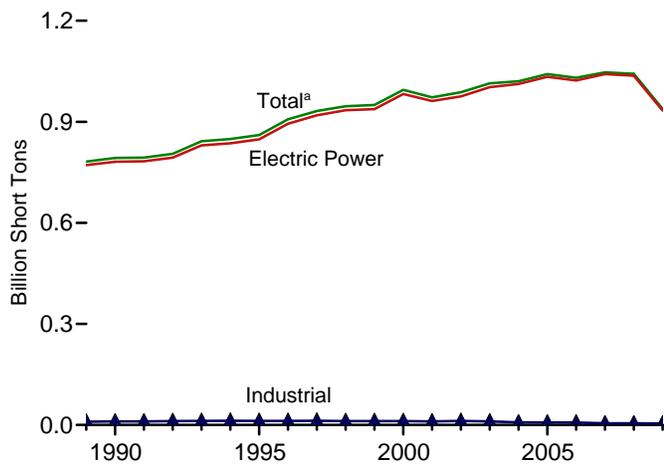
Notes: • See Note, "Classification of Power Plants Into Energy-Use Sectors," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/elect.html> for all available data beginning in 1973.

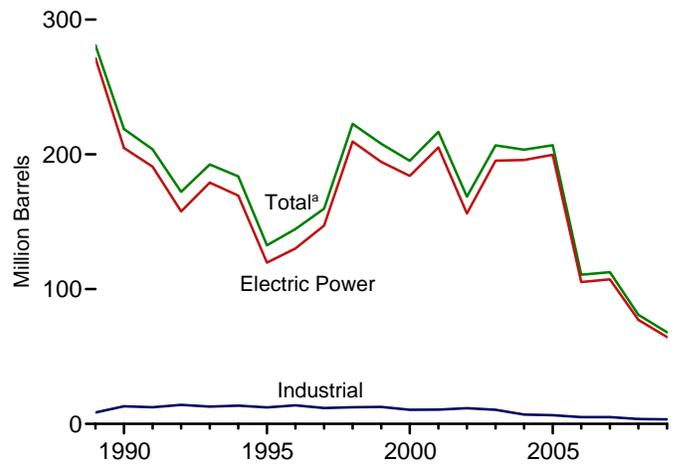
Sources: See end of section.

Figure 7.3 Consumption of Selected Combustible Fuels for Electricity Generation

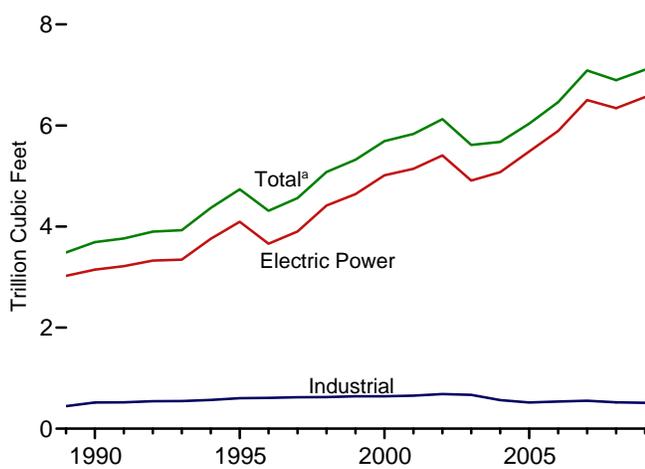
Coal by Sector, 1989-2009



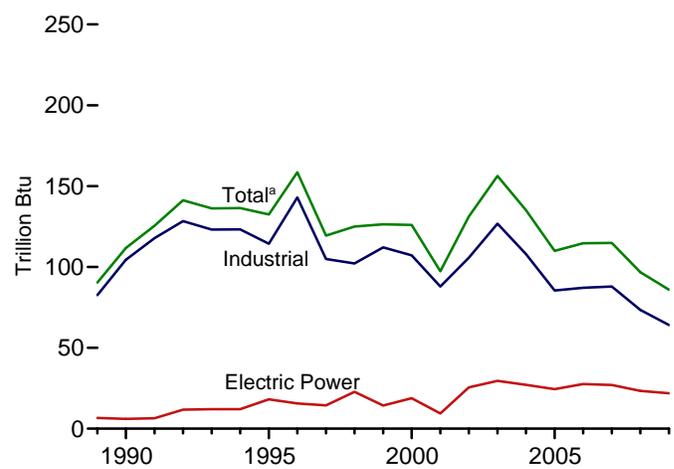
Petroleum by Sector, 1989-2009



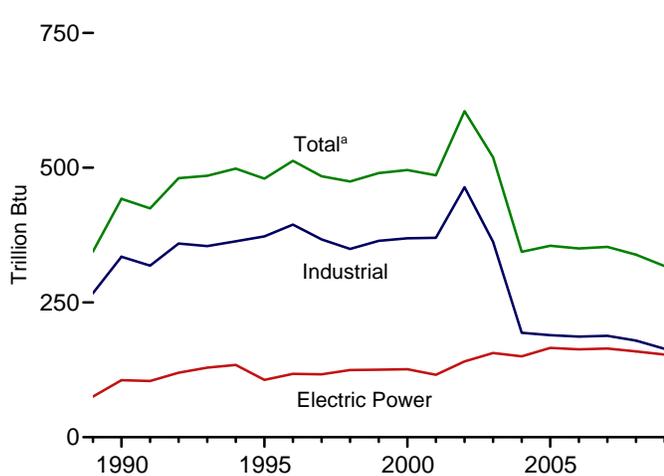
Natural Gas by Sector, 1989-2009



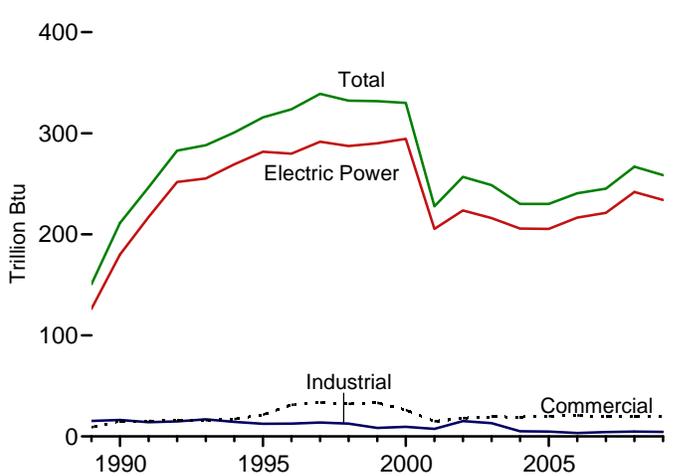
Other Gases^b by Sector, 1989-2009



Wood by Sector, 1989-2009



Waste by Sector, 1989-2009



^aIncludes commercial sector.

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

Web Page: <http://www.eia.doe.gov/emeu/mer/elect.html>.
Sources: Tables 7.3a, 7.3b, and 7.3c.

**Table 7.3a Consumption of Combustible Fuels for Electricity Generation:
Total (All Sectors) (Sum of Tables 7.3b and 7.3c)**

	Coal ^a Thousand Short Tons	Petroleum					Natural Gas ^f Billion Cubic Feet	Other Gases ^g	Biomass		Other ^j
		Distillate Fuel Oil ^b Thousand Barrels	Residual Fuel Oil ^c Thousand Barrels	Other Liquids ^d Thousand Short Tons	Petroleum Coke ^e Thousand Barrels	Total ^e Thousand Barrels			Wood ^h Trillion Btu	Waste ⁱ Trillion Btu	
1973 Total	389,212	47,058	513,190	NA	507	562,781	3,660	NA	1	2	NA
1975 Total	405,962	38,907	467,221	NA	70	506,479	3,158	NA	(s)	2	NA
1980 Total	569,274	29,051	391,163	NA	179	421,110	3,682	NA	3	2	NA
1985 Total	693,841	14,635	158,779	NA	231	174,571	3,044	NA	8	7	NA
1990 Total ^k	792,457	18,143	190,652	437	1,914	218,800	3,692	112	442	211	36
1995 Total	860,594	19,615	95,507	680	3,355	132,578	4,738	133	480	316	42
1996 Total	907,209	20,252	106,055	1,712	3,322	144,626	4,312	159	513	324	37
1997 Total	931,949	20,309	118,741	237	4,086	159,715	4,565	119	484	339	36
1998 Total	946,295	25,062	172,728	549	4,860	222,640	5,081	125	475	332	36
1999 Total	949,802	25,951	158,187	974	4,552	207,871	5,322	126	490	332	41
2000 Total	994,933	31,675	143,381	1,450	3,744	195,228	5,691	126	496	330	46
2001 Total	972,691	31,150	165,312	855	3,871	216,672	5,832	97	486	228	160
2002 Total	987,583	23,286	109,235	1,894	6,836	168,597	6,126	131	605	257	191
2003 Total	1,014,058	29,672	142,518	2,947	6,303	206,653	5,616	156	519	249	193
2004 Total	1,020,523	20,163	142,088	2,856	7,677	203,494	5,675	135	344	230	183
2005 Total	1,041,448	20,651	141,518	2,968	8,330	206,785	6,036	110	355	230	173
2006 Total	1,030,556	13,174	58,473	2,174	7,363	110,634	6,462	115	350	241	172
2007 Total	1,046,795	15,683	63,833	2,917	6,036	112,615	7,089	115	353	245	168
2008 January	94,532	1,633	3,309	350	514	7,864	554	9	30	21	14
February	86,702	1,198	2,697	265	469	6,508	458	8	28	20	13
March	83,373	936	2,352	250	396	5,517	480	9	29	23	15
April	76,924	934	2,627	193	432	5,915	487	8	26	22	14
May	81,248	940	2,802	196	409	5,982	495	8	26	22	15
June	89,532	1,351	4,722	237	500	8,812	682	9	28	23	15
July	98,194	1,028	3,863	200	452	7,349	805	10	30	24	16
August	95,752	901	3,223	179	480	6,703	786	10	30	23	15
September	85,545	929	3,896	194	447	7,253	618	7	28	22	14
October	80,186	771	2,339	176	469	5,633	565	7	27	22	13
November	80,993	850	2,610	210	423	5,786	473	6	28	22	13
December	89,353	1,358	3,751	373	426	7,610	491	6	27	23	14
Total	1,042,335	12,832	38,191	2,822	5,417	80,932	6,896	97	339	267	170
2009 January	91,018	1,767	5,936	443	428	10,287	500	6	28	21	12
February	74,577	1,176	2,365	288	392	5,788	467	6	25	19	11
March	72,264	1,217	1,993	274	496	5,966	518	6	25	22	13
April	67,328	794	1,655	197	436	4,826	471	6	23	22	13
May	70,665	1,083	2,202	210	438	5,687	536	6	24	22	14
June	79,264	1,006	2,366	166	435	5,712	667	7	26	23	14
July	84,658	953	2,538	176	448	5,909	800	8	29	23	14
August	87,039	1,025	2,999	206	441	6,435	860	8	30	23	14
September	74,051	803	1,856	178	432	4,997	708	8	26	21	13
October	75,163	888	2,068	195	273	4,517	555	8	26	21	13
November	73,459	791	1,219	185	273	3,562	478	7	28	21	13
December	88,572	1,020	1,229	203	362	4,262	543	9	29	22	13
Total	938,059	12,523	28,426	2,723	4,855	67,948	7,105	86	318	259	159
2010 January	90,914	2,508	2,838	251	447	7,832	564	8	29	20	13
February	80,231	817	1,077	193	413	4,150	497	6	26	18	11
2-Month Total	171,145	3,325	3,915	443	860	11,982	1,061	14	55	38	24
2009 2-Month Total	165,595	2,943	8,301	731	820	16,075	968	12	52	40	23
2008 2-Month Total	181,234	2,832	6,006	614	984	14,371	1,012	17	58	42	27

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

^b Fuel oil nos. 1, 2, and 4. For 1973-1979, data are for gas turbine and internal combustion plant use of petroleum. For 1980-2000, electric utility data also include small amounts of kerosene and jet fuel.

^c Fuel oil nos. 5 and 6. For 1973-1979, data are for steam plant use of petroleum. For 1980-2000, electric utility data also include a small amount of fuel oil no. 4.

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

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

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

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

^h Wood and wood-derived fuels.

ⁱ Municipal solid waste from biogenic sources, landfill gas, sludge waste, agricultural byproducts, and other biomass. Through 2000, also includes non-renewable waste (municipal solid waste from non-biogenic sources, and

tire-derived fuels).

^j Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, miscellaneous technologies, and, beginning in 2001, non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

^k Through 1988, data are for electric utilities only. Beginning in 1989, data are for electric utilities, independent power producers, commercial plants, and industrial plants.

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

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

Web Page: See <http://www.eia.doe.gov/emeu/mer/elect.html> for all available data beginning in 1973.

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

Table 7.3b Consumption of Combustible Fuels for Electricity Generation: Electric Power Sector (Subset of Table 7.3a)

	Coal ^a	Petroleum					Natural Gas ^f	Other Gases ^g	Biomass		Other ⁱ
		Distillate Fuel Oil ^b	Residual Fuel Oil ^c	Other Liquids ^d	Petroleum Coke ^e	Total ^e			Wood ^h	Waste ⁱ	
		Thousand Short Tons	Thousand Barrels			Thousand Short Tons			Thousand Barrels	Billion Cubic Feet		Trillion Btu
1973 Total	389,212	47,058	513,190	NA	507	562,781	3,660	NA	1	2	NA
1975 Total	405,962	38,907	467,221	NA	70	506,479	3,158	NA	(s)	2	NA
1980 Total	569,274	29,051	391,163	NA	179	421,110	3,682	NA	3	2	NA
1985 Total	693,841	14,635	158,779	NA	231	174,571	3,044	NA	8	7	NA
1990 Total ^k	781,301	16,394	183,285	25	1,008	204,745	3,147	6	106	180	(s)
1995 Total	847,854	18,066	88,895	441	2,452	119,663	4,094	18	106	282	2
1996 Total	894,400	18,472	98,795	567	2,467	130,168	3,660	16	117	280	2
1997 Total	919,009	18,646	112,423	130	3,201	147,202	3,903	14	117	292	1
1998 Total	934,126	23,166	165,875	411	3,999	209,447	4,416	23	125	287	2
1999 Total	937,888	23,875	151,921	514	3,607	194,345	4,644	14	125	290	1
2000 Total	982,713	29,722	138,047	403	3,155	183,946	5,014	19	126	294	1
2001 Total	961,523	29,056	159,150	374	3,308	205,119	5,142	9	116	205	109
2002 Total	975,251	21,810	104,577	1,243	5,705	156,154	5,408	25	141	224	137
2003 Total	1,003,036	27,441	137,361	1,937	5,719	195,336	4,909	30	156	216	136
2004 Total	1,012,459	18,793	138,831	2,511	7,135	195,809	5,075	27	150	206	131
2005 Total	1,033,567	19,450	138,337	2,591	7,877	199,760	5,485	24	166	205	116
2006 Total	1,022,802	12,578	56,347	1,783	6,905	105,235	5,891	28	163	216	117
2007 Total	1,041,346	15,135	62,072	2,496	5,523	107,316	6,502	27	165	221	117
2008 January	94,085	1,573	3,175	336	476	7,467	503	2	14	20	10
February	86,301	1,155	2,584	252	437	6,177	413	2	13	18	9
March	82,904	905	2,248	224	363	5,192	434	2	14	21	11
April	76,465	910	2,547	182	398	5,631	444	2	11	20	10
May	80,763	911	2,731	185	376	5,707	450	2	12	20	10
June	89,057	1,320	4,648	226	461	8,500	634	2	13	20	10
July	97,694	971	3,806	189	414	7,035	752	2	15	22	11
August	95,263	857	3,171	171	441	6,405	734	2	15	21	11
September	85,078	849	3,845	174	412	6,930	578	1	13	20	10
October	79,729	747	2,281	158	433	5,352	519	2	12	20	10
November	80,601	815	2,548	202	393	5,531	432	1	13	20	10
December	88,952	1,307	3,637	309	394	7,220	449	2	14	21	10
Total	1,036,891	12,318	37,222	2,608	5,000	77,149	6,342	23	159	242	120
2009 January	90,589	1,691	5,794	424	394	9,879	456	1	14	19	10
February	74,201	1,073	2,291	270	362	5,446	425	1	13	17	9
March	71,854	1,179	1,932	233	461	5,650	473	2	12	20	10
April	66,938	746	1,605	170	402	4,531	430	2	10	20	10
May	70,259	991	2,148	199	404	5,358	494	2	11	20	10
June	78,847	938	2,316	148	401	5,410	622	2	13	21	10
July	84,227	885	2,496	169	414	5,620	752	2	14	21	11
August	86,591	951	2,950	190	406	6,122	811	2	15	21	11
September	73,644	744	1,811	165	399	4,715	662	2	12	19	10
October	74,743	850	2,026	187	248	4,303	509	2	12	19	9
November	73,128	757	1,180	177	245	3,340	433	2	13	18	9
December	88,177	985	1,173	194	333	4,018	494	2	15	20	10
Total	933,197	11,791	27,723	2,525	4,471	64,393	6,561	22	153	234	118
2010 January	90,260	2,464	2,779	240	412	7,541	514	2	15	18	9
February	79,591	789	1,029	188	382	3,913	453	2	13	16	8
2-Month Total	169,851	3,252	3,807	428	793	11,454	967	3	27	35	18
2009 2-Month Total	164,790	2,764	8,085	693	756	15,325	881	3	27	36	18
2008 2-Month Total	180,385	2,728	5,760	588	914	13,643	916	4	27	38	19

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

^b Fuel oil nos. 1, 2, and 4. For 1973-1979, data are for gas turbine and internal combustion plant use of petroleum. For 1980-2000, electric utility data also include small amounts of kerosene and jet fuel.

^c Fuel oil nos. 5 and 6. For 1973-1979, data are for steam plant use of petroleum. For 1980-2000, electric utility data also include a small amount of fuel oil no. 4.

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

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

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

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

^h Wood and wood-derived fuels.

ⁱ Municipal solid waste from biogenic sources, landfill gas, sludge waste, agricultural byproducts, and other biomass. Through 2000, also includes non-renewable waste (municipal solid waste from non-biogenic sources, and

tire-derived fuels).

^j Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, miscellaneous technologies, and, beginning in 2001, non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

^k Through 1988, data are for electric utilities only. Beginning in 1989, data are for electric utilities and independent power producers.

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

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

Web Page: See <http://www.eia.doe.gov/emeu/mer/elect.html> for all available data beginning in 1973.

Sources: See end of section.

Table 7.3c Consumption of Selected Combustible Fuels for Electricity Generation: Commercial and Industrial Sectors (Subset of Table 7.3a)

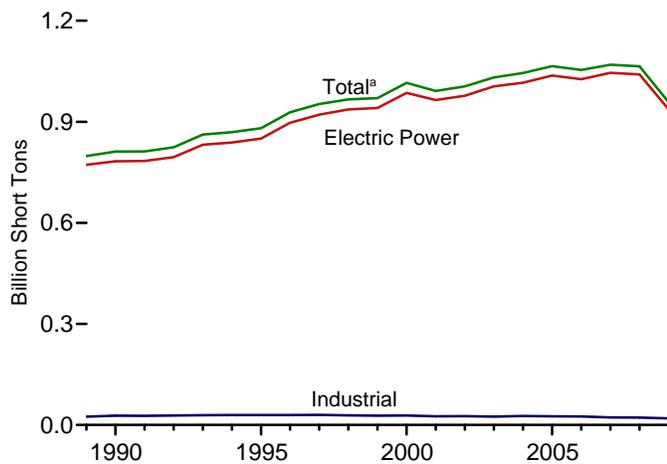
	Commercial Sector ^a				Industrial Sector ^b						
	Coal ^c	Petroleum ^d	Natural Gas ^e	Biomass	Coal ^c	Petroleum ^d	Natural Gas ^e	Other Gases ^g	Biomass		Other ⁱ
				Waste ^f					Wood ^h	Waste ^f	
Thousand Short Tons	Thousand Barrels	Billion Cubic Feet	Trillion Btu	Thousand Short Tons	Thousand Barrels	Billion Cubic Feet	Trillion Btu				
1989 Total	414	1,165	18	9	9,707	8,482	444	83	267	15	37
1990 Total	417	953	28	15	10,740	13,103	517	104	335	16	36
1995 Total	569	649	43	21	12,171	12,265	601	114	373	13	40
1996 Total	656	645	42	31	12,153	13,813	610	143	394	13	35
1997 Total	630	790	39	34	12,311	11,723	623	105	367	14	36
1998 Total	440	802	41	32	11,728	12,392	625	102	349	13	35
1999 Total	481	931	39	33	11,432	12,595	639	112	364	8	39
2000 Total	514	823	37	26	11,706	10,459	640	107	369	10	45
2001 Total	532	1,023	36	15	10,636	10,530	654	88	370	7	44
2002 Total	477	834	33	18	11,855	11,608	685	106	464	15	43
2003 Total	582	894	38	19	10,440	10,424	668	127	362	13	46
2004 Total	377	766	33	19	7,687	6,919	566	108	194	5	41
2005 Total	377	585	34	20	7,504	6,440	518	85	189	5	46
2006 Total	347	333	35	21	7,408	5,066	536	87	187	3	45
2007 Total	361	258	34	19	5,089	5,041	554	88	188	4	41
2008 January	33	22	3	2	414	375	48	6	16	(s)	3
February	31	18	3	2	371	313	42	6	14	1	3
March	25	10	3	2	444	315	43	7	15	(s)	3
April	25	9	2	2	433	274	41	6	15	(s)	3
May	28	9	2	2	457	266	43	6	15	(s)	4
June	35	13	3	2	441	299	45	7	15	(s)	4
July	36	18	3	2	464	296	50	7	16	1	4
August	34	11	3	2	455	287	49	8	16	(s)	4
September	32	8	3	2	435	315	37	6	14	(s)	3
October	28	10	3	2	428	271	43	5	15	(s)	3
November	29	14	3	2	362	242	39	5	15	(s)	2
December	32	24	3	2	369	365	39	5	13	(s)	2
Total	369	166	33	20	5,075	3,617	520	73	179	5	39
2009 January	33	31	3	2	396	377	42	5	13	(s)	2
February	28	13	3	1	347	330	39	5	12	(s)	2
March	25	11	3	2	385	304	42	5	13	(s)	3
April	23	13	3	2	367	282	39	4	13	(s)	3
May	22	15	3	2	383	314	40	4	13	(s)	3
June	23	11	3	2	394	291	42	5	13	(s)	3
July	26	12	3	2	405	276	45	6	15	(s)	3
August	29	17	3	2	420	296	46	6	15	(s)	3
September	25	13	3	2	383	268	44	6	14	(s)	3
October	24	13	3	2	396	201	43	6	14	(s)	3
November	25	10	2	2	307	211	43	6	15	(s)	3
December	29	11	3	2	366	233	47	7	14	(s)	3
Total	313	171	32	20	4,549	3,383	511	64	164	4	31
2010 January	33	11	3	2	621	280	48	6	14	(s)	3
February	29	11	3	1	611	225	42	5	14	(s)	2
2-Month Total	62	23	5	3	1,232	505	89	11	28	1	5
2009 2-Month Total	62	44	5	3	744	707	81	9	26	1	4
2008 2-Month Total	64	41	6	3	785	688	90	13	30	1	6

^a Commercial combined-heat-and-power (CHP) and commercial electricity-only plants.
^b Industrial combined-heat-and-power (CHP) and industrial electricity-only plants.
^c Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.
^d Distillate fuel oil, residual fuel oil, petroleum coke, jet fuel, kerosene, other petroleum, and waste oil.
^e Natural gas, plus a small amount of supplemental gaseous fuels.
^f Municipal solid waste from biogenic sources, landfill gas, sludge waste, agricultural byproducts, and other biomass. Through 2000, also includes non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).
^g Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.
^h Wood and wood-derived fuels.
ⁱ Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, miscellaneous

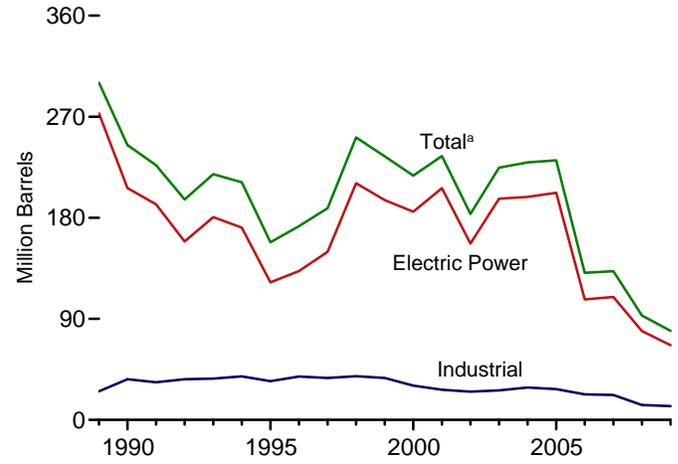
technologies, and, beginning in 2001, non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).
R=Revised. (s)=Less than 0.5 trillion Btu.
Notes: • Data are for fuels consumed to produce electricity. Through 1988, data are not available. • See Note, "Classification of Power Plants Into Energy-Use Sectors," 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: See <http://www.eia.doe.gov/emeu/mer/elect.html> for all available data beginning in 1989.
Sources: • **1989-1997:** U.S. Energy Information Administration (EIA), Form EIA-867, "Annual Nonutility Power Producer Report." • **1998-2000:** EIA, Form EIA-860B, "Annual Electric Generator Report—Nonutility." • **2001-2003:** EIA, Form EIA-906, "Power Plant Report." • **2004-2007:** EIA, Form EIA-906, "Power Plant Report," and Form EIA-920, "Combined Heat and Power Plant Report." • **2008 forward:** EIA, Form EIA-923, "Power Plant Operations Report."

Figure 7.4 Consumption of Selected Combustible Fuels for Electricity Generation and Useful Thermal Output

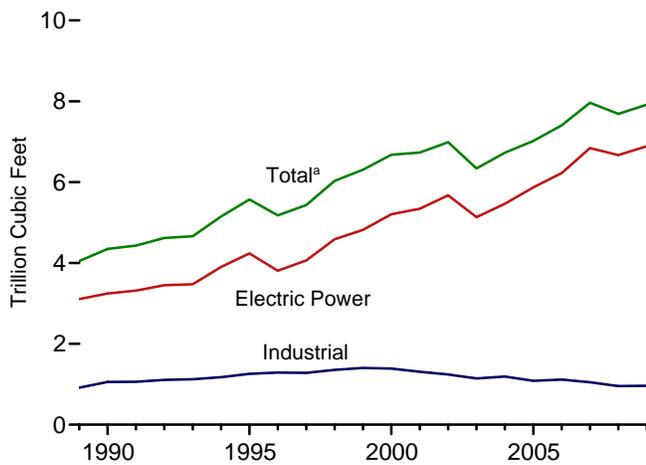
Coal by Sector, 1989-2009



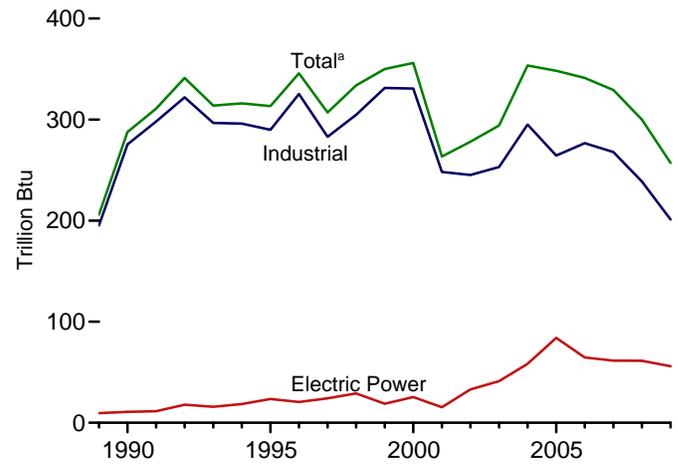
Petroleum by Sector, 1989-2009



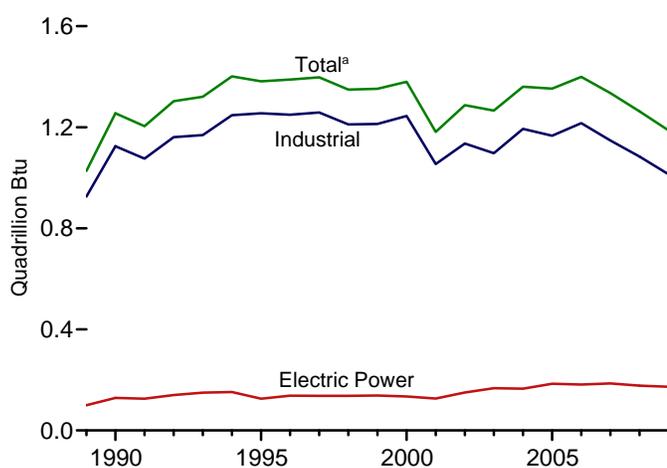
Natural Gas by Sector, 1989-2009



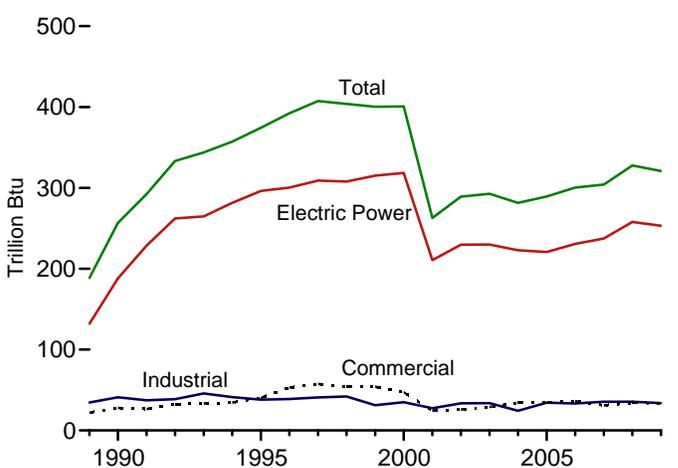
Other Gases^b by Sector, 1989-2009



Wood by Sector, 1989-2009



Waste by Sector, 1989-2009



^aIncludes commercial sector.

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

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

Sources: Tables 7.4a, 7.4b, and 7.4c.

Table 7.4a Consumption of Combustible Fuels for Electricity Generation and Useful Thermal Output: Total (All Sectors) (Sum of Tables 7.4b and 7.4c)

	Coal ^a	Petroleum					Natural Gas ^f	Other Gases ^g	Biomass		Other ⁱ
		Distillate Fuel Oil ^b	Residual Fuel Oil ^c	Other Liquids ^d	Petroleum Coke ^e	Total ^e			Wood ^h	Waste ⁱ	
		Thousand Short Tons	Thousand Barrels			Thousand Short Tons			Thousand Barrels	Billion Cubic Feet		Trillion Btu
1973 Total	389,212	47,058	513,190	NA	507	562,781	3,660	NA	1	2	NA
1975 Total	405,962	38,907	467,221	NA	70	506,479	3,158	NA	0	2	NA
1980 Total	569,274	29,051	391,163	NA	179	421,110	3,682	NA	3	2	NA
1985 Total	693,841	14,635	158,779	NA	231	174,571	3,044	NA	8	7	NA
1990 Total ^k	811,538	20,194	209,081	1,332	2,832	244,765	4,346	288	1,256	257	86
1995 Total	881,012	21,697	112,168	1,322	4,590	158,140	5,572	313	1,382	374	97
1996 Total	928,015	22,444	124,607	2,468	4,596	172,499	5,178	346	1,389	392	91
1997 Total	952,955	22,893	134,623	526	6,095	188,517	5,433	307	1,397	407	103
1998 Total	966,615	30,006	189,267	1,230	6,196	251,486	6,030	334	1,349	404	95
1999 Total	970,175	30,616	172,319	1,812	5,989	234,694	6,305	350	1,352	400	101
2000 Total	1,015,398	34,572	156,673	2,904	4,669	217,494	6,677	356	1,380	401	109
2001 Total	991,635	33,724	177,137	1,418	4,532	234,940	6,731	263	1,182	263	229
2002 Total	1,005,144	24,749	118,637	3,257	7,353	183,409	6,986	278	1,287	289	252
2003 Total	1,031,778	31,825	152,859	4,576	7,067	224,593	6,337	294	1,266	293	262
2004 Total	1,044,798	23,520	157,478	4,764	8,721	229,364	6,727	353	1,360	282	254
2005 Total	1,065,281	24,446	156,915	4,270	9,113	231,193	7,021	348	1,353	289	237
2006 Total	1,053,783	14,655	69,846	3,396	8,622	131,005	7,404	341	1,399	300	247
2007 Total	1,069,606	17,042	74,616	4,237	7,299	132,389	7,962	329	1,336	304	239
2008											
January	96,610	1,830	3,975	468	592	9,233	625	31	128	27	17
February	88,657	1,294	3,214	369	537	7,561	522	32	106	27	17
March	85,270	1,017	2,826	373	464	6,534	547	27	108	29	18
April	78,700	1,007	3,038	271	499	6,810	550	24	106	27	17
May	83,058	1,017	3,203	267	480	6,887	559	25	105	27	18
June	91,296	1,450	5,131	299	576	9,761	750	26	102	27	18
July	100,072	1,129	4,247	257	525	8,258	876	27	107	28	19
August	97,599	987	3,587	230	556	7,586	858	27	105	27	19
September	87,314	1,000	4,244	251	521	8,098	679	22	99	26	17
October	81,919	867	2,662	236	554	6,533	630	22	102	27	16
November	82,770	986	2,978	259	504	6,743	537	18	101	28	16
December	91,239	1,553	4,372	485	507	8,945	557	19	94	28	17
Total	1,064,503	14,137	43,477	3,765	6,314	92,948	7,689	300	1,263	328	209
2009											
January	92,879	1,991	6,628	517	515	11,712	571	21	99	27	14
February	76,337	1,351	2,804	354	475	6,884	529	20	92	23	13
March	74,043	1,344	2,327	355	565	6,852	587	21	94	31	15
April	68,842	931	1,965	272	502	5,679	539	19	90	26	15
May	72,222	1,225	2,695	277	501	6,701	602	19	92	27	16
June	80,870	1,149	2,646	204	497	6,483	733	20	94	27	16
July	86,324	1,109	2,833	211	516	6,733	867	23	105	28	17
August	88,654	1,156	3,323	249	515	7,304	929	24	109	28	17
September	75,593	934	2,150	239	499	5,816	774	24	99	26	15
October	76,748	986	2,381	238	368	5,443	623	22	104	25	15
November	75,099	881	1,482	225	378	4,476	545	21	103	26	15
December	90,376	1,103	1,571	249	463	5,237	615	23	106	28	16
Total	957,986	14,158	32,805	3,390	5,793	79,318	7,915	257	1,187	321	185
2010											
January	92,816	2,620	3,204	316	527	8,776	637	22	105	26	15
February	82,001	900	1,370	254	484	4,945	560	19	95	23	13
2-Month Total	174,817	3,520	4,575	570	1,011	13,721	1,197	41	200	50	28
2009 2-Month Total	169,216	3,341	9,432	871	990	18,596	1,100	40	191	50	27
2008 2-Month Total	185,267	3,124	7,189	837	1,129	16,794	1,147	62	234	54	35

^a Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.
^b Fuel oil nos. 1, 2, and 4. Through 2000, electric utility data also include small amounts of kerosene and jet fuel.
^c Fuel oil nos. 5 and 6. Through 2000, electric utility data also include a small amount of fuel oil no. 4.
^d Jet fuel, kerosene, other petroleum liquids, and waste oil.
^e Petroleum coke is converted from short tons to barrels by multiplying by 5.
^f Natural gas, plus a small amount of supplemental gaseous fuels.
^g Blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels.
^h Wood and wood-derived fuels.
ⁱ Municipal solid waste from biogenic sources, landfill gas, sludge waste, agricultural byproducts, and other biomass. Through 2000, also includes non-renewable waste (municipal solid waste from non-biogenic sources, and

tire-derived fuels).
^j Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, miscellaneous technologies, and, beginning in 2001, non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).
^k Through 1988, data are for electric utilities only. Beginning in 1989, data are for electric utilities, independent power producers, commercial plants, and industrial plants.
R=Revised. NA=Not available.
Notes: • Data are for fuels consumed to produce electricity and useful thermal output. • Totals may not equal sum of components due to independent rounding.
• Geographic coverage is the 50 States and the District of Columbia.
Web Page: See <http://www.eia.doe.gov/emeu/mer/elect.html> for all available data beginning in 1973.
Sources: See sources for Tables 7.4b and 7.4c.

Table 7.4b Consumption of Combustible Fuels for Electricity Generation and Useful Thermal Output: Electric Power Sector (Subset of Table 7.4a)

	Coal ^a	Petroleum					Natural Gas ^f	Other Gases ^g	Biomass		Other ^j
		Distillate Fuel Oil ^b	Residual Fuel Oil ^c	Other Liquids ^d	Petroleum Coke ^e	Total ^e			Wood ^h	Waste ⁱ	
		Thousand Short Tons	Thousand Barrels			Thousand Short Tons			Thousand Barrels	Billion Cubic Feet		Trillion Btu
1973 Total	389,212	47,058	513,190	NA	507	562,781	3,660	NA	1	2	NA
1975 Total	405,962	38,907	467,221	NA	70	506,479	3,158	NA	(s)	2	NA
1980 Total	569,274	29,051	391,163	NA	179	421,110	3,682	NA	3	2	NA
1985 Total	693,841	14,635	158,779	NA	231	174,571	3,044	NA	8	7	NA
1990 Total ^k	782,567	16,567	184,915	26	1,008	206,550	3,245	11	129	188	(s)
1995 Total	850,230	18,553	90,023	499	2,674	122,447	4,237	24	125	296	2
1996 Total	896,921	18,780	99,951	653	2,642	132,593	3,807	20	138	300	2
1997 Total	921,364	18,989	113,669	152	3,372	149,668	4,065	24	137	309	1
1998 Total	936,619	23,300	166,528	431	4,102	210,769	4,588	29	137	308	2
1999 Total	940,922	24,058	152,493	544	3,735	195,769	4,820	19	138	315	1
2000 Total	985,821	30,016	138,513	454	3,275	185,358	5,206	25	134	318	1
2001 Total	964,433	29,274	159,504	377	3,427	206,291	5,342	15	126	211	113
2002 Total	977,507	21,876	104,773	1,267	5,816	156,996	5,672	33	150	230	143
2003 Total	1,005,116	27,632	138,279	2,026	5,799	196,932	5,135	41	167	230	140
2004 Total	1,016,268	19,107	139,816	2,713	7,372	198,498	5,464	58	165	223	138
2005 Total	1,037,485	19,675	139,409	2,685	8,083	202,184	5,869	84	185	221	123
2006 Total	1,026,636	12,646	57,345	1,870	7,101	107,365	6,222	65	182	231	125
2007 Total	1,045,141	15,327	63,086	2,594	5,685	109,431	6,841	61	186	237	124
2008 January	94,459	1,596	3,263	344	486	7,631	531	5	16	21	11
February	86,626	1,182	2,629	259	449	6,315	439	5	15	20	11
March	83,215	925	2,323	245	374	5,363	461	6	15	23	11
April	76,753	925	2,635	189	409	5,791	470	5	13	21	10
May	81,056	928	2,817	191	385	5,863	475	6	13	21	11
June	89,347	1,339	4,726	228	472	8,652	665	6	14	22	11
July	98,032	986	3,890	190	424	7,186	782	6	16	23	11
August	95,590	873	3,271	172	445	6,541	763	6	16	22	11
September	85,376	866	3,931	175	421	7,075	603	4	15	21	10
October	79,982	764	2,369	161	444	5,513	545	5	14	21	10
November	80,883	836	2,646	205	405	5,710	458	4	15	21	10
December	89,259	1,327	3,742	312	407	7,415	476	4	16	22	11
Total	1,040,580	12,547	38,241	2,670	5,119	79,056	6,668	61	177	258	128
2009 January	90,921	1,798	5,897	447	406	10,173	485	4	16	20	10
February	74,503	1,105	2,363	292	373	5,627	452	4	14	19	9
March	72,141	1,220	1,997	245	471	5,817	500	4	13	24	10
April	67,199	765	1,691	180	413	4,702	456	4	12	21	10
May	70,534	1,009	2,225	218	415	5,527	521	5	13	21	11
June	79,128	952	2,397	150	414	5,567	649	5	15	22	11
July	84,491	898	2,580	171	426	5,780	780	5	15	22	11
August	86,852	966	3,037	192	418	6,284	841	5	16	22	11
September	73,887	757	1,894	167	409	4,865	689	5	13	20	10
October	75,002	866	2,127	189	257	4,468	536	5	13	20	10
November	73,397	773	1,267	178	255	3,493	459	5	14	20	10
December	88,481	1,004	1,263	196	343	4,180	521	5	17	22	11
Total	936,536	12,115	28,738	2,622	4,602	66,483	6,888	56	173	253	126
2010 January	90,587	2,499	2,862	245	422	7,718	543	5	17	20	10
February	79,896	814	1,066	212	393	4,055	478	4	15	18	9
2-Month Total	170,482	3,313	3,927	457	815	11,773	1,021	9	31	39	19
2009 2-Month Total	165,425	2,904	8,260	738	779	15,800	937	8	30	39	19
2008 2-Month Total	181,085	2,779	5,892	602	935	13,946	970	10	31	41	22

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

^b Fuel oil nos. 1, 2, and 4. Through 2000, electric utility data also include small amounts of kerosene and jet fuel.

^c Fuel oil nos. 5 and 6. Through 2000, electric utility data also include a small amount of fuel oil no. 4.

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

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

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

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

^h Wood and wood-derived fuels.

ⁱ Municipal solid waste from biogenic sources, landfill gas, sludge waste, agricultural byproducts, and other biomass. Through 2000, also includes non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

^j Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, miscellaneous technologies, and, beginning in 2001, non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

^k Through 1988, data are for electric utilities only. Beginning in 1989, data are for electric utilities and independent power producers.

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

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

Web Page: See <http://www.eia.doe.gov/emeu/mer/elect.html> for all available data beginning in 1973.

Sources: See end of section.

Table 7.4c Consumption of Selected Combustible Fuels for Electricity Generation and Useful Thermal Output: Commercial and Industrial Sectors (Subset of Table 7.4a)

	Commercial Sector ^a				Industrial Sector ^b						
	Coal ^c	Petroleum ^d	Natural Gas ^e	Biomass	Coal ^c	Petroleum ^d	Natural Gas ^e	Other Gases ^g	Biomass		Other ⁱ
				Waste ^f					Wood ^h	Waste ^f	
Thousand Short Tons	Thousand Barrels	Billion Cubic Feet	Trillion Btu	Thousand Short Tons	Thousand Barrels	Billion Cubic Feet	Trillion Btu				
1989 Total	1,125	1,967	30	22	24,867	25,444	914	195	926	35	85
1990 Total	1,191	2,056	46	28	27,781	36,159	1,055	275	1,125	41	86
1995 Total	1,419	1,245	78	40	29,363	34,448	1,258	290	1,255	38	95
1996 Total	1,660	1,246	82	53	29,434	38,661	1,289	325	1,249	39	89
1997 Total	1,738	1,584	87	58	29,853	37,265	1,282	283	1,259	41	102
1998 Total	1,443	1,807	87	54	28,553	38,910	1,355	305	1,211	42	93
1999 Total	1,490	1,613	84	54	27,763	37,312	1,401	331	1,213	31	99
2000 Total	1,547	1,615	85	47	28,031	30,520	1,386	331	1,244	35	108
2001 Total	1,448	1,832	79	25	25,755	26,817	1,310	248	1,054	27	101
2002 Total	1,405	1,250	74	26	26,232	25,163	1,240	245	1,136	34	92
2003 Total	1,816	1,449	58	29	24,846	26,212	1,144	253	1,097	34	103
2004 Total	1,917	2,009	72	34	26,613	28,857	1,191	295	1,193	24	94
2005 Total	1,922	1,630	68	34	25,875	27,380	1,084	264	1,166	34	94
2006 Total	1,886	935	68	36	25,262	22,706	1,115	277	1,216	33	102
2007 Total	1,927	752	70	31	22,537	22,207	1,050	268	1,148	36	98
2008											
January	197	108	6	3	1,954	1,494	87	26	112	3	5
February	181	71	6	3	1,850	1,175	78	27	92	4	5
March	176	35	6	3	1,879	1,136	80	21	92	4	5
April	144	26	5	3	1,803	992	75	19	93	3	5
May	145	20	4	3	1,857	1,004	79	20	92	2	6
June	177	60	5	3	1,772	1,048	80	20	88	2	6
July	169	93	6	3	1,871	978	88	21	90	2	6
August	168	36	6	3	1,841	1,008	89	21	88	2	6
September	155	22	6	3	1,783	1,001	71	18	84	2	5
October	150	29	5	3	1,787	991	80	17	88	3	4
November	166	51	5	3	1,721	981	74	15	86	4	4
December	195	118	6	3	1,784	1,412	75	15	78	4	4
Total	2,021	671	66	34	21,902	13,222	955	239	1,084	35	60
2009											
January	196	116	6	3	1,762	1,424	80	16	83	3	2
February	172	48	5	2	1,662	1,208	72	16	77	2	3
March	164	47	6	4	1,738	987	80	16	81	4	3
April	129	40	5	3	1,514	937	77	15	78	3	3
May	124	49	5	3	1,564	1,125	77	15	79	3	4
June	136	43	5	3	1,606	872	79	15	79	3	3
July	137	45	5	3	1,696	908	82	18	89	3	4
August	142	58	5	3	1,660	962	83	19	93	3	4
September	131	44	5	3	1,574	906	81	19	86	3	3
October	134	42	5	2	1,611	933	82	17	91	3	3
November	152	35	5	3	1,551	948	82	16	88	3	4
December	173	47	6	3	1,722	1,010	89	18	89	3	3
Total	1,790	617	63	34	19,660	12,219	964	201	1,013	34	39
2010											
January	193	49	6	3	2,036	1,010	88	18	88	3	3
February	169	39	5	2	1,937	851	77	14	80	3	3
2-Month Total	361	88	11	5	3,973	1,860	165	32	168	6	6
2009 2-Month Total	367	164	11	6	3,424	2,632	152	32	160	5	5
2008 2-Month Total	378	179	12	5	3,803	2,669	165	52	203	8	10

^a Commercial combined-heat-and-power (CHP) and commercial electricity-only plants.

^b Industrial combined-heat-and-power (CHP) and industrial electricity-only plants.

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

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

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

^f Municipal solid waste from biogenic sources, landfill gas, sludge waste, agricultural byproducts, and other biomass. Through 2000, also includes non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

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

^h Wood and wood-derived fuels.

ⁱ Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, miscellaneous

technologies, and, beginning in 2001, non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

R=Revised.

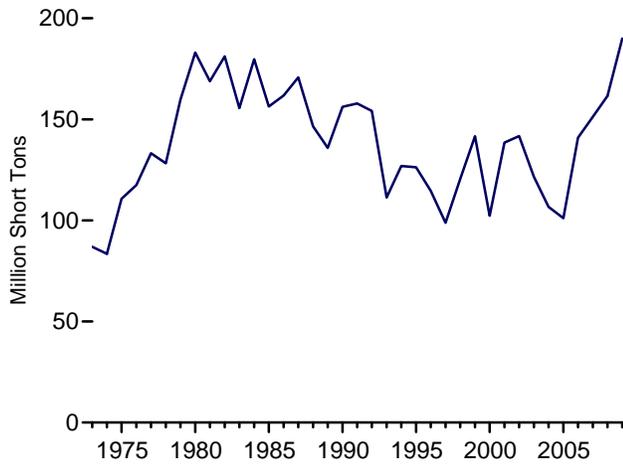
Notes: • Data are for fuels consumed to produce electricity and useful thermal output. Through 1988, data are not available. • See Note, "Classification of Power Plants Into Energy-Use Sectors," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/elect.html> for all available data beginning in 1989.

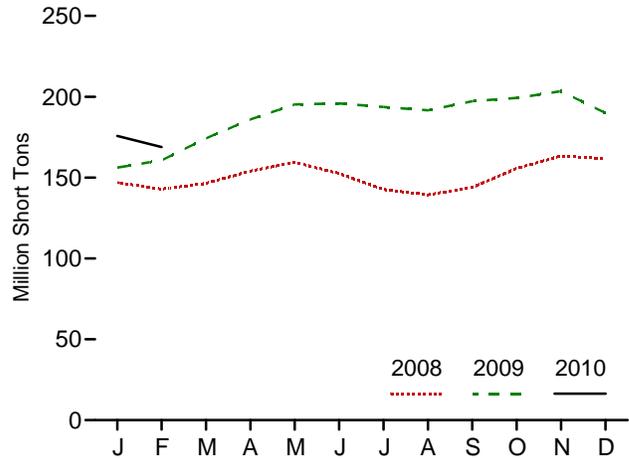
Sources: • **1989-1997:** U.S. Energy Information Administration (EIA), Form EIA-867, "Annual Nonutility Power Producer Report." • **1998-2000:** EIA, Form EIA-860B, "Annual Electric Generator Report—Nonutility." • **2001-2003:** EIA, Form EIA-906, "Power Plant Report." • **2004-2007:** EIA, Form EIA-906, "Power Plant Report," and Form EIA-920, "Combined Heat and Power Plant Report." • **2008 forward:** EIA, Form EIA-923, "Power Plant Operations Report."

Figure 7.5 Stocks of Coal and Petroleum: Electric Power Sector

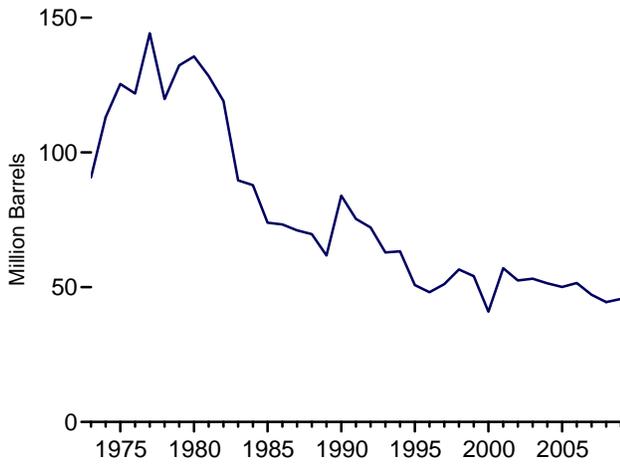
Coal, 1973-2009



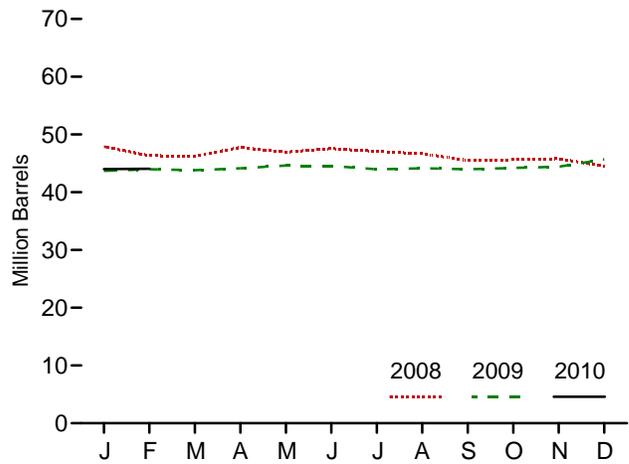
Coal, Monthly



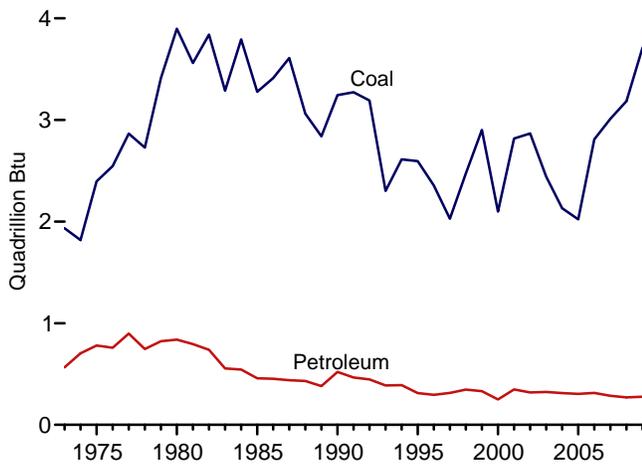
Total Petroleum, 1973-2009



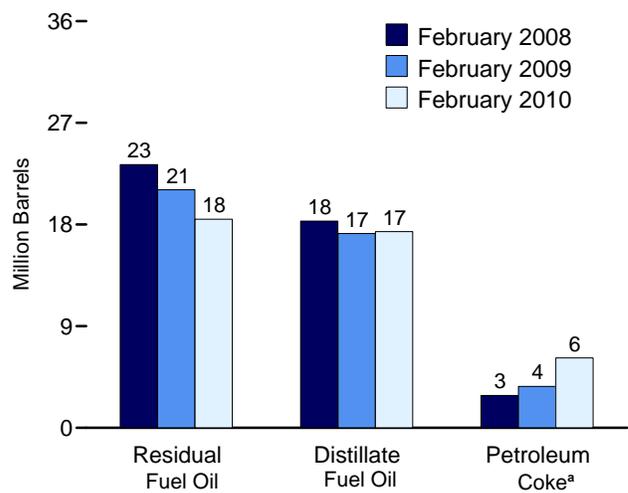
Total Petroleum, Monthly



Coal and Petroleum Stocks, 1973-2009



Petroleum by Major Type, End of Month



^aConverted from short tons to barrels by multiplying by five.
 Web Page: <http://www.eia.doe.gov/emeu/mer/elect.html>.
 Sources: Tables 7.5, A1, and A5 (column 6).

Table 7.5 Stocks of Coal and Petroleum: Electric Power Sector

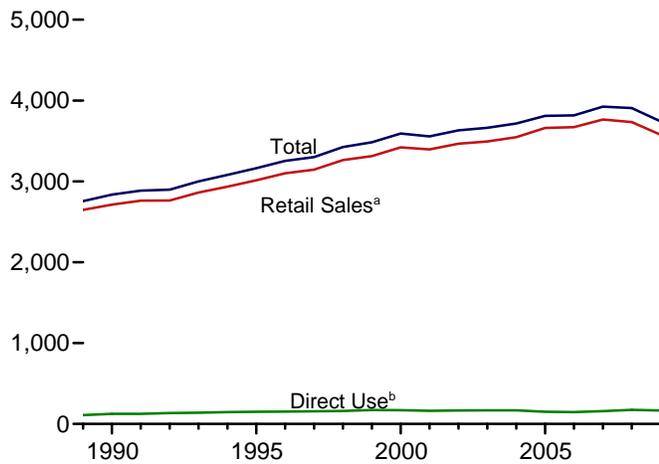
	Coal ^a	Petroleum				Total ^e
		Distillate Fuel Oil ^b	Residual Fuel Oil ^c	Other Liquids ^d	Petroleum Coke ^e	
		Thousand Barrels			Thousand Short Tons		Thousand Barrels
1973 Year	86,967	10,095	79,121	NA	312	90,776
1975 Year	110,724	16,432	108,825	NA	31	125,413
1980 Year	183,010	30,023	105,351	NA	52	135,635
1985 Year	156,376	16,386	57,304	NA	49	73,933
1990 Year	156,166	16,471	67,030	NA	94	83,970
1995 Year	126,304	15,392	35,102	NA	65	50,821
1996 Year	114,623	15,216	32,473	NA	91	48,146
1997 Year	98,826	15,456	33,336	NA	469	51,138
1998 Year	120,501	16,343	37,451	NA	559	56,591
1999 Year ^f	141,604	17,995	34,256	NA	372	54,109
2000 Year	102,296	15,127	24,748	NA	211	40,932
2001 Year	138,496	20,486	34,594	NA	390	57,031
2002 Year	141,714	17,413	25,723	800	1,711	52,490
2003 Year	121,567	19,153	25,820	779	1,484	53,170
2004 Year	106,669	19,275	26,596	879	937	51,434
2005 Year	101,137	18,778	27,624	1,012	530	50,062
2006 Year	140,964	18,013	28,823	1,380	674	51,583
2007 Year	151,221	18,395	24,136	1,902	554	47,203
2008 January	146,973	18,633	23,972	1,997	656	47,884
February	142,782	18,307	23,301	1,859	573	46,334
March	146,497	18,091	22,807	2,062	662	46,271
April	154,029	17,888	24,164	2,083	722	47,743
May	159,408	17,824	23,228	2,087	758	46,927
June	152,542	17,880	23,963	2,106	723	47,562
July	142,572	17,911	23,175	2,111	776	47,075
August	139,352	17,909	23,078	2,126	712	46,671
September	143,903	17,830	22,081	2,129	689	45,483
October	155,659	17,911	22,112	2,197	683	45,634
November	163,390	18,241	21,488	2,198	777	45,811
December	161,589	17,761	21,088	1,955	739	44,498
2009 January	156,194	17,470	20,452	2,043	749	43,713
February	160,741	17,204	21,083	2,038	733	43,988
March	174,264	17,134	21,087	2,038	712	43,821
April	185,989	17,794	20,796	2,043	701	44,137
May	195,288	17,697	20,919	2,080	786	44,624
June	195,887	17,621	21,046	2,101	757	44,554
July	193,702	17,692	20,588	2,091	722	43,981
August	191,611	17,759	19,928	2,075	876	44,140
September	197,167	17,858	19,212	2,081	965	43,978
October	199,238	17,695	18,669	2,074	1,152	44,197
November	203,409	17,595	18,509	2,062	1,252	44,424
December	189,971	17,804	18,846	2,049	1,395	45,675
2010 January	175,815	17,115	17,953	2,018	1,384	44,006
February	168,902	17,375	18,466	2,039	1,239	44,076

^a Anthracite, bituminous coal, subbituminous coal, and lignite.
^b Fuel oil nos. 1, 2 and 4. For 1973-1979, data are for gas turbine and internal combustion plant stocks of petroleum. For 1980-2000, electric utility data also include small amounts of kerosene and jet fuel.
^c Fuel oil nos. 5 and 6. For 1973-1979, data are for steam plant stocks of petroleum. For 1980-2000, electric utility data also include a small amount of fuel oil no. 4.
^d Jet fuel and kerosene. Through 2003, data also include a small amount of waste oil.
^e Petroleum coke is converted from short tons to barrels by multiplying by 5.
^f Through 1998, data are for electric utilities only. Beginning in 1999, data are for electric utilities and independent power producers.
R=Revised. NA=Not available.
Notes: • The electric power sector comprises electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public. • Stocks

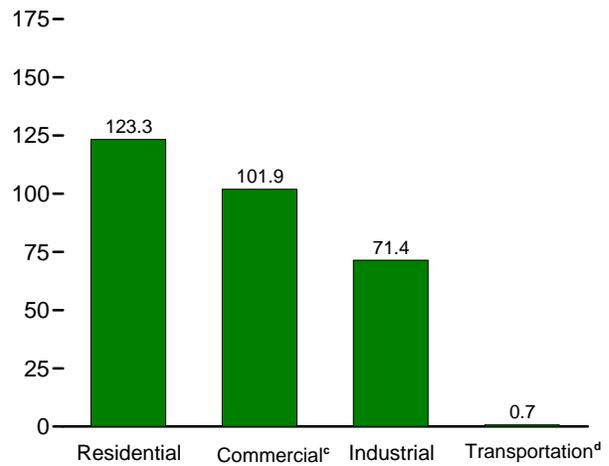
are at end of period. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.
Web Page: See <http://www.eia.doe.gov/emeu/mer/elect.html> for all available data beginning in 1973.
Sources: • **1973-September 1977:** Federal Power Commission, Form FPC-4, "Monthly Power Plant Report." • **October 1977-1981:** Federal Energy Regulatory Commission, Form FPC-4, "Monthly Power Plant Report." • **1982-1988:** U.S. Energy Information Administration (EIA), Form EIA-759, "Monthly Power Plant Report." • **1989-1997:** EIA, Form EIA-759, "Monthly Power Plant Report," and Form EIA-867, "Annual Nonutility Power Producer Report." • **1998-2000:** EIA, Form EIA-759, "Monthly Power Plant Report," and Form EIA-860B, "Annual Electric Generator Report—Nonutility." • **2001-2003:** Form EIA-906, "Power Plant Report"; • **2004-2007:** EIA, Form EIA-906, "Power Plant Report," and Form EIA-920, "Combined Heat and Power Plant Report." • **2008 forward:** EIA, Form EIA-923, "Power Plant Operations Report."

Figure 7.6 Electricity End Use
(Billion Kilowatthours)

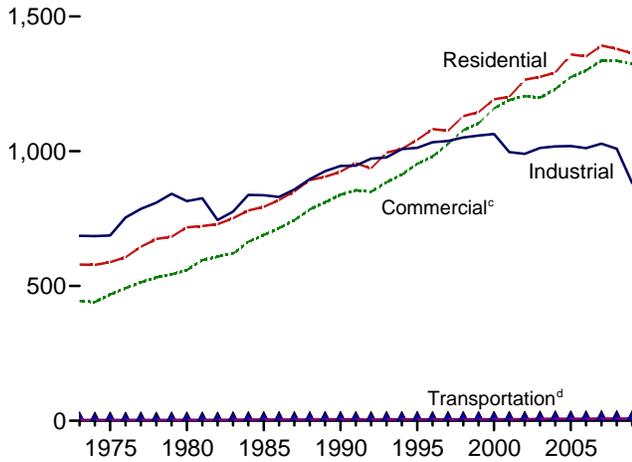
Electricity End Use Overview, 1989-2009



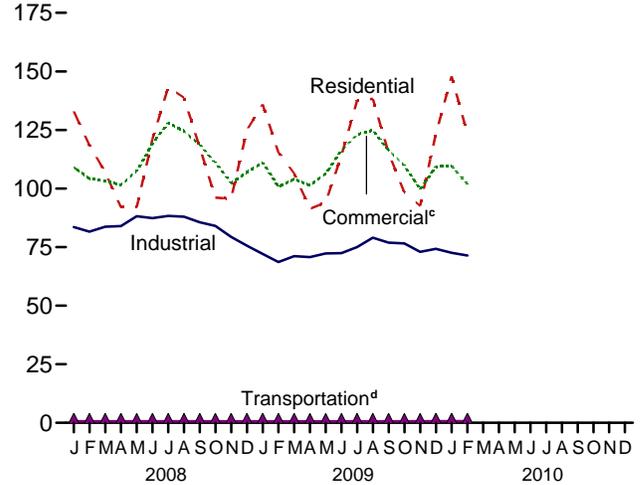
Retail Sales^a by Sector, February 2010



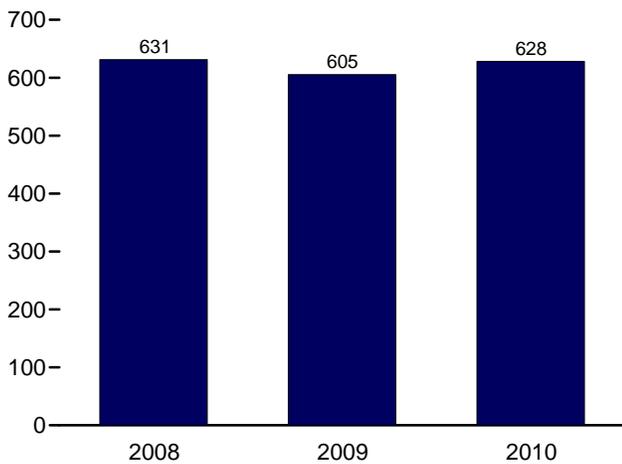
Retail Sales^a by Sector, 1973-2009



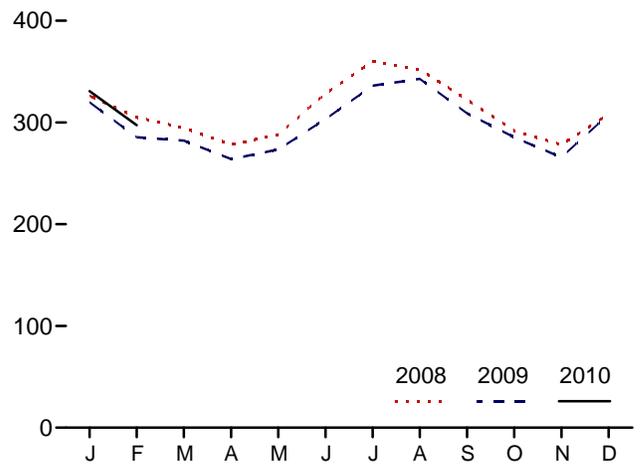
Retail Sales^a by Sector, Monthly



Retail Sales^a Total, January-February



Retail Sales^a Total, Monthly



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

^bSee "Direct Use" in Glossary.

^cCommercial sector, including public street and highway lighting, interde-

partmental sales, and other sales to public authorities.

^dTransportation sector, including sales to railroads and railways.

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

Source: Table 7.6.

Table 7.6 Electricity End Use
(Million Kilowatthours)

	Retail Sales ^a					Direct Use ^f	Total End Use ^g	Discontinued Retail Sales Series	
	Residential	Commercial ^b	Industrial ^c	Transportation ^d	Total Retail Sales ^e			Commercial (Old) ^h	Other (Old) ⁱ
1973 Total	579,231	E 444,505	686,085	E 3,087	1,712,909	NA	1,712,909	388,266	59,326
1975 Total	588,140	E 468,296	687,680	E 2,974	1,747,091	NA	1,747,091	403,049	68,222
1980 Total	717,495	558,643	815,067	3,244	2,094,449	NA	2,094,449	488,155	73,732
1985 Total	793,934	689,121	836,772	4,147	2,323,974	NA	2,323,974	605,989	87,279
1990 Total	924,019	838,263	945,522	4,751	2,712,555	124,529	2,837,084	751,027	91,988
1995 Total	1,042,501	953,117	1,012,693	4,975	3,013,287	150,677	3,163,963	862,685	95,407
1996 Total	1,082,512	980,061	1,033,631	4,923	3,101,127	152,638	3,253,765	887,445	97,539
1997 Total	1,075,880	1,026,626	1,038,197	4,907	3,145,610	156,239	3,301,849	928,633	102,901
1998 Total	1,130,109	1,077,957	1,051,203	4,962	3,264,231	160,866	3,425,097	979,401	103,518
1999 Total	1,144,923	1,103,821	1,058,217	5,126	3,312,087	171,629	3,483,716	1,001,996	106,952
2000 Total	1,192,446	1,159,347	1,064,239	5,382	3,421,414	170,943	3,592,357	1,055,232	109,496
2001 Total	1,201,607	1,190,518	996,609	5,724	3,394,458	162,649	3,557,107	1,083,069	113,174
2002 Total	1,265,180	1,204,531	990,238	5,517	3,465,466	166,184	3,631,650	1,104,497	105,552
2003 Total	1,275,824	1,198,728	1,012,373	6,810	3,493,734	168,295	3,662,029	--	--
2004 Total	1,291,982	1,230,425	1,017,850	7,224	3,547,479	168,470	3,715,949	--	--
2005 Total	1,359,227	1,275,079	1,019,156	7,506	3,660,969	150,016	3,810,984	--	--
2006 Total	1,351,520	1,299,744	1,011,298	7,358	3,669,919	146,927	3,816,845	--	--
2007 Total	1,392,241	1,336,315	1,027,832	8,173	3,764,561	159,254	3,923,814	--	--
2008 January	132,938	109,028	83,582	714	326,263	E 15,743	342,006	--	--
February	118,471	104,288	81,603	658	305,021	E 14,131	319,151	--	--
March	107,057	103,239	83,714	638	294,647	E 14,616	309,264	--	--
April	91,977	101,502	83,999	617	278,095	E 13,950	292,044	--	--
May	92,018	107,379	88,166	598	288,162	E 14,388	302,550	--	--
June	121,137	119,063	87,345	625	328,170	E 14,948	343,118	--	--
July	143,269	128,028	88,310	653	360,261	E 16,246	376,507	--	--
August	138,765	124,496	87,990	647	351,898	E 15,998	367,896	--	--
September	117,589	118,677	85,565	626	322,457	E 13,199	335,655	--	--
October	96,093	110,988	84,032	635	291,748	E 14,088	305,836	--	--
November	95,665	102,384	79,373	615	278,037	E 12,947	290,984	--	--
December	125,003	106,909	75,619	672	308,203	E 13,228	321,431	--	--
Total	1,379,981	1,335,981	1,009,300	7,700	3,732,962	173,481	3,906,443	--	--
2009 January	135,904	111,126	72,088	746	319,865	E 13,757	333,622	--	--
February	115,432	100,772	68,603	655	285,461	E 12,777	298,239	--	--
March	106,467	104,015	71,105	664	282,252	E 13,718	295,969	--	--
April	91,395	101,302	70,730	604	264,032	E 12,882	276,914	--	--
May	94,084	106,401	72,267	587	273,340	E 13,053	286,393	--	--
June	114,178	116,139	72,425	605	303,347	E 13,769	317,115	--	--
July	137,467	123,010	75,032	656	336,166	E 14,628	350,794	--	--
August	138,290	124,975	79,016	633	342,915	E 15,016	357,932	--	--
September	115,217	116,315	76,884	636	309,051	E 13,976	323,027	--	--
October	98,399	109,895	76,556	603	285,452	E 14,016	299,468	--	--
November	92,614	99,669	72,945	597	265,825	E 13,791	279,616	--	--
December	123,423	109,370	74,252	701	307,745	E 14,651	322,396	--	--
Total	1,362,869	1,322,989	881,903	7,689	3,575,450	E 166,034	3,741,484	--	--
2010 January	147,849	109,639	72,584	732	330,804	E 15,213	346,017	--	--
February	123,330	101,901	71,420	694	297,344	E 13,754	311,098	--	--
2-Month Total	271,178	211,540	144,004	1,425	628,148	E 28,967	657,115	--	--
2009 2-Month Total	251,336	211,898	140,691	1,401	605,327	E 26,534	631,860	--	--
2008 2-Month Total	251,409	213,316	165,186	1,373	631,284	E 29,874	661,158	--	--

^a Electricity retail sales to ultimate customers reported by electric utilities and, beginning in 1996, other energy service providers.

^b Commercial sector, including public street and highway lighting, interdepartmental sales, and other sales to public authorities.

^c Industrial sector. Through 2002, excludes agriculture and irrigation; beginning in 2003, includes agriculture and irrigation.

^d Transportation sector, including sales to railroads and railways.

^e The sum of "Residential," "Commercial," "Industrial," and "Transportation."

^f Use of electricity that is 1) self-generated, 2) produced by either the same entity that consumes the power or an affiliate, and 3) used in direct support of a service or industrial process located within the same facility or group of facilities that house the generating equipment. Direct use is exclusive of station use.

^g The sum of "Total Retail Sales" and "Direct Use."

^h "Commercial (Old)" is a discontinued series—data are for the commercial sector, excluding public street and highway lighting, interdepartmental sales, and other sales to public authorities.

ⁱ "Other (Old)" is a discontinued series—data are for public street and highway lighting, interdepartmental sales, other sales to public authorities, agriculture and irrigation, and transportation including railroads and railways.

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

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: See <http://www.eia.doe.gov/emeu/mer/elect.html> for all available data beginning in 1973.

Sources: See end of section.

Electricity

Note. Classification of Power Plants Into Energy-Use Sectors.

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

<http://www.eia.doe.gov/cneaf/electricity/forms/eia860/eia860.doc>.

Table 7.1 Sources

Net Generation, Electric Power Sector

Table 7.2b.

Net Generation, Commercial and Industrial Sectors

Table 7.2c.

Imports and Exports, Electricity Trade With Canada and Mexico, 1973–1989

1973–September 1977: Unpublished Federal Power Commission data.

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

1981: U.S. Department of Energy (DOE), Office of Energy Emergency Operations, “Report on Electric Energy Exchanges with Canada and Mexico for Calendar Year 1981,” April 1982 (revised June 1982).

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

1984–1986: DOE, ERA, *Electricity Transactions Across International Borders*.

1987 and 1988: DOE, ERA, Form ERA-781R, “Annual Report of International Electrical Export/Import Data.”

1989: DOE, Fossil Energy, Form FE-781R, “Annual Report of International Electrical Export/Import Data.”

Imports and Exports, Electricity Trade with Canada, 1990 Forward

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

and service) by Canada from the United States.

Imports and Exports, Electricity Trade with Mexico, 1990 Forward

DOE, Fossil Energy, Office of Fuels Programs, Form FE-781R, “Annual Report of International Electrical Export/Import Data.” For 2001 forward, data from the California Independent System Operator were used in combination with the Form FE-781R values to estimate electricity trade with Mexico.

T&D Losses and Unaccounted for

Calculated as the sum of total net generation and imports minus end use and exports.

End Use

Table 7.6.

Table 7.2b Sources

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

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

1982–1988: U.S. Energy Information Administration (EIA), Form EIA-759, “Monthly Power Plant Report.”

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

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

2001–2003: EIA, Form EIA-906, “Power Plant Report.”

2004–2007: EIA, Form EIA-906, “Power Plant Report,” and Form EIA-920, “Combined Heat and Power Plant Report.”

2008 forward: EIA, Form EIA-923, “Power Plant Operations Report.”

Table 7.2c Sources

Industrial Sector, Hydroelectric Power, 1973–1988

1973–September 1977: 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.

October 1977–1978: Federal Energy Regulatory Commission (FERC), Form FPC-4, “Monthly Power Plant Report,” for plants with generating capacity exceeding 10 megawatts, and FERC, Form FPC-12C, “Industrial Electric Generating Capacity,” for all other plants.

1979: FERC, Form FPC-4, “Monthly Power Plant Report,” for plants with generating capacity exceeding 10 megawatts, and U.S. Energy Information Administration (EIA) estimates for all other plants.

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

All Data, 1989 Forward

1989–1997: EIA, Form EIA-867, “Annual Nonutility Power Producer Report.”

1998–2000: EIA, Form EIA-860B, “Annual Electric Generator Report—Nonutility.”

2001–2003: EIA, Form EIA-906, “Power Plant Report.”

2004–2007: EIA, Form EIA-906, “Power Plant Report,” and Form EIA-920, “Combined Heat and Power Plant Report.”

2008 forward: EIA, Form EIA-923, “Power Plant Operations Report.”

Table 7.3b Sources

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

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

1982–1988: U.S. Energy Information Administration (EIA), Form EIA-759, “Monthly Power Plant Report.”

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

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

2001–2003: EIA, Form EIA-906, “Power Plant Report.”

2004–2007: EIA, Form EIA-906, “Power Plant Report,” and Form EIA-920, “Combined Heat and Power Plant Report.”

2008 forward: EIA, Form EIA-923, “Power Plant Operations Report.”

Table 7.4b Sources

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

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

1982–1988: U.S. Energy Information Administration (EIA), Form EIA-759, “Monthly Power Plant Report.”

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

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

2001–2003: EIA, Form EIA-906, “Power Plant Report.”

2004–2007: EIA, Form EIA-906, “Power Plant Report,” and Form EIA-920, “Combined Heat and Power Plant Report.”

2008 forward: EIA, Form EIA-923, “Power Plant Operations Report.”

Table 7.6 Sources

Retail Sales, Residential and Industrial

1973–September 1977: Federal Power Commission, Form FPC-5, “Monthly Statement of Electric Operating Revenue and Income.”

October 1977–February 1980: Federal Energy Regulatory Commission (FERC), Form FPC-5, “Monthly Statement of Electric Operating Revenue and Income.”

March 1980–1982: FERC, Form FPC-5, “Electric Utility Company Monthly Statement.”

1983: U.S. Energy Information Administration (EIA), Form EIA-826, “Electric Utility Company Monthly Statement.”

1984–1993: EIA, Form EIA-861, “Annual Electric Utility Report.”

1994 forward: EIA, *Electric Power Monthly*, May 2010, Table 5.1.

Retail Sales, Commercial

1973–2002: Estimated by EIA as the sum of “Commercial (Old)” and the non-transportation portion of “Other (Old).” See estimation methodology at

http://www.eia.doe.gov/emeu/states/sep_use/notes/use_elec.pdf.

2003 forward: EIA, *Electric Power Monthly*, May 2010, Table 5.1.

Retail Sales, Transportation

1973–2002: Estimated by EIA as the transportation portion of “Other (Old).” See estimation methodology at

http://www.eia.doe.gov/emeu/states/sep_use/notes/use_elec.pdf.

2003 forward: EIA, *Electric Power Monthly*, May 2010, Table 5.1.

Direct Use, Annual

1989–1996: EIA, Form EIA-867, “Annual Nonutility Power Producer Report.”

1997–2008: EIA, *Electric Power Annual 2008*, January 2010, Table 7.2.

2009: Sum of monthly estimates.

Direct Use, Monthly

Annual shares are calculated as annual direct use divided by annual commercial and industrial net generation (on Table 7.1). Then monthly direct use estimates are calculated as the annual share multiplied by the monthly commercial and industrial net generation values. For 2009 and 2010, the 2008 annual share is used.

Discontinued Retail Sales Series Commercial (Old) and Other (Old) 1973–2002: See sources for “Residential” and “Industrial.”

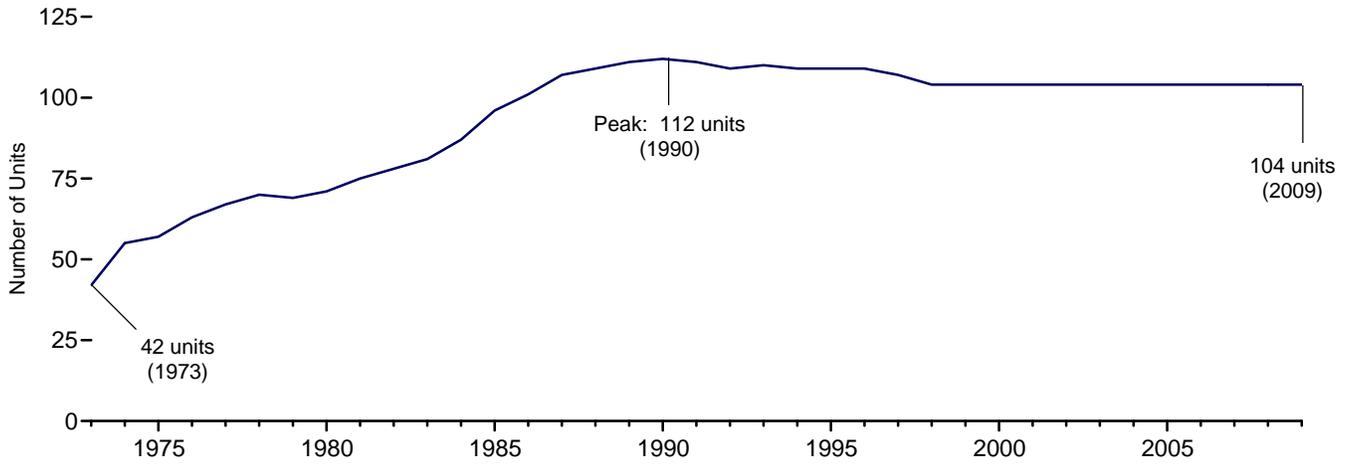
Nuclear Energy



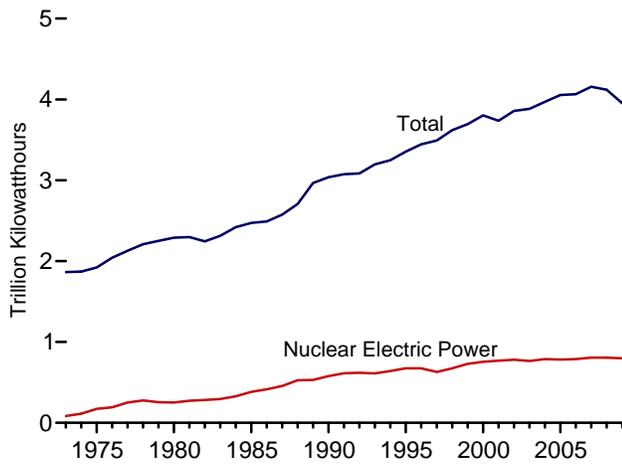
Site of Shippingport atomic power station, the first commercial nuclear power plant in the United States (rectangular reactor building and foreground); background, Beaver Valley 1 and 2 nuclear power plants and Bruce Mansfield coal-fired power plant (southwestern Pennsylvania). Source: U.S. Department of Energy.

Figure 8.1 Nuclear Energy Overview

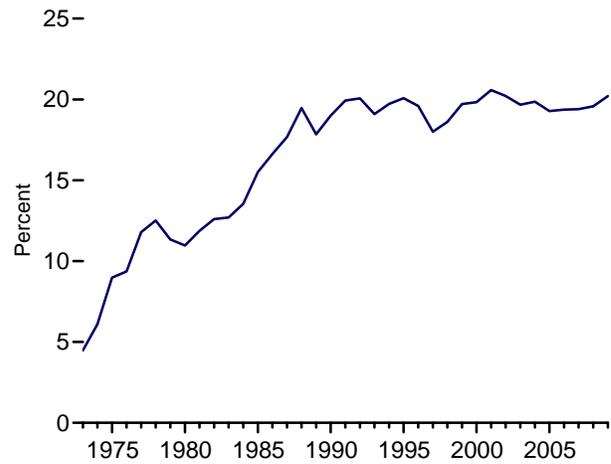
Operable Units, End of Year, 1973-2009



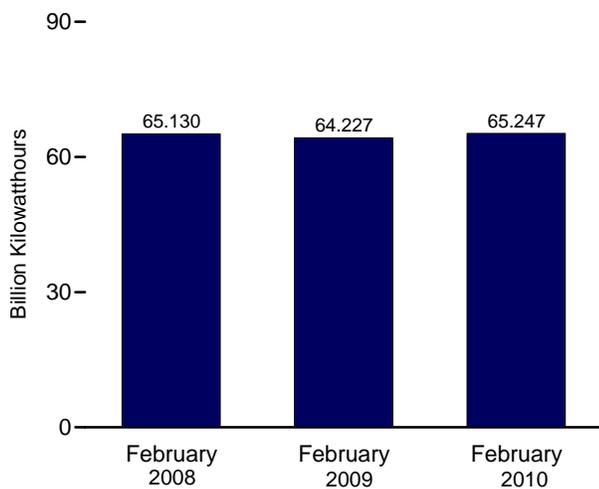
Electricity Net Generation, 1973-2009



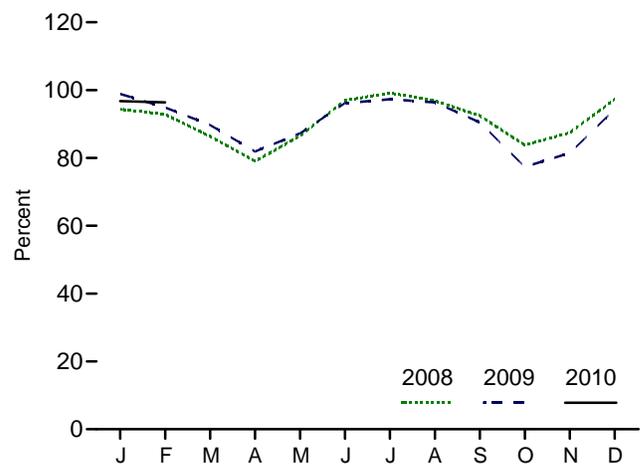
Nuclear Share of Electricity Net Generation, 1973-2009



Nuclear Electricity Net Generation



Capacity Factor, Monthly



Web Page: <http://www.eia.doe.gov/emeu/mer/nuclear.html>.
Sources: Tables 7.2a and 8.1.

Table 8.1 Nuclear Energy Overview

	Total Operable Units ^{a,b}	Net Summer Capacity of Operable Units ^{b,c}	Nuclear Electricity Net Generation	Nuclear Share of Electricity Net Generation	Capacity Factor ^d
	Number	Million Kilowatts	Million Kilowatthours	Percent	
1973 Total	42	22.683	83,479	4.5	53.5
1975 Total	57	37.267	172,505	9.0	55.9
1980 Total	71	51.810	251,116	11.0	56.3
1985 Total	96	79.397	383,691	15.5	58.0
1990 Total	112	99.624	576,862	19.0	66.0
1995 Total	109	99.515	673,402	20.1	77.4
1996 Total	109	100.784	674,729	19.6	76.2
1997 Total	107	99.716	628,644	18.0	71.1
1998 Total	104	97.070	673,702	18.6	78.2
1999 Total	104	97.411	728,254	19.7	85.3
2000 Total	104	97.860	753,893	19.8	88.1
2001 Total	104	98.159	768,826	20.6	89.4
2002 Total	104	98.657	780,064	20.2	90.3
2003 Total	104	99.209	763,733	19.7	87.9
2004 Total	104	99.628	788,528	19.9	90.1
2005 Total	104	99.988	781,986	19.3	89.3
2006 Total	104	100.334	787,219	19.4	89.6
2007 Total	104	100.266	806,425	19.4	91.8
2008 January	104	100.755	70,735	19.5	94.4
February	104	100.755	65,130	20.0	92.9
March	104	100.755	64,716	19.9	86.3
April	104	100.755	57,333	18.7	79.0
May	104	100.755	64,826	19.9	86.5
June	104	100.755	70,319	18.8	96.9
July	104	100.755	74,318	18.4	99.1
August	104	100.755	72,617	18.7	96.9
September	104	100.755	67,054	19.8	92.4
October	104	100.755	62,820	19.7	83.8
November	104	100.755	63,408	20.5	87.4
December	104	100.755	72,931	21.2	97.3
Total	104	100.755	806,208	19.6	91.1
2009 January	104	100.755	74,102	20.9	98.9
February	104	100.755	64,227	21.3	94.9
March	104	100.755	67,241	21.6	89.7
April	104	100.755	59,408	20.5	81.9
May	104	100.755	65,375	21.0	87.2
June	104	100.755	69,735	20.0	96.1
July	104	100.755	72,949	19.6	97.3
August	104	100.755	72,245	19.0	96.4
September	104	100.755	65,662	20.1	90.5
October	104	100.755	58,021	18.9	77.4
November	104	100.755	59,069	19.9	81.4
December	104	100.755	70,710	20.2	94.3
Total	104	100.755	798,745	20.2	90.5
2010 January	104	100.755	72,534	20.1	96.8
February	104	100.755	65,247	20.4	96.4
2-Month Total	104	100.755	137,781	20.3	96.6
2009 2-Month Total	104	100.755	138,330	21.1	97.0
2008 2-Month Total	104	100.755	135,865	19.7	93.6

^a Total of nuclear generating units holding full-power licenses, or equivalent permission to operate, at end of period. See Note 1, "Operable Nuclear Reactors," at end of section. For additional information on nuclear generating units, see *Annual Energy Review 2008*, June 2009, Table 9.1, <http://www.eia.doe.gov/emeu/aer/nuclear.html>.

^b At end of period.

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

^d For an explanation of the method of calculating the capacity factor, see Note

2, "Nuclear Capacity," at end of section.
R=Revised.

Notes: • For a discussion of nuclear reactor unit coverage, see Note 1, "Operable Nuclear Reactors," at end of section. • Nuclear electricity net generation totals may not equal sum of components due to independent rounding.

• Geographic coverage is the 50 States and the District of Columbia.
Web Page: See <http://www.eia.doe.gov/emeu/mer/nuclear.html> for all available data beginning in 1973.

Sources: See end of section.

Nuclear Energy

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

(a) In 1985 the five then-active Tennessee Valley Authority (TVA) units (Browns Ferry 1, 2, and 3, and Sequoyah 1 and 2) were shut down under a regulatory forced outage. All five units were idle for several years, restarting in 2007, 1991, 1995, 1988, and 1988, respectively and were counted as operable during the shutdowns.

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

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

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

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

(a) Net Summer Capacity—The steady hourly output that generating equipment is expected to supply to system load, exclusive of auxiliary power, as demonstrated by test at the

time of summer peak demand. Auxiliary power of a typical nuclear power plant is about 5 percent of gross generation.

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

The monthly capacity factors are calculated as the monthly nuclear electricity net generation divided by the maximum possible nuclear electricity net generation for that month. The maximum possible nuclear electricity net generation is the number of hours in the month (assuming 24-hour days, with no adjustment for changes to or from Daylight Savings Time) multiplied by the net summer capacity of operable nuclear generating units at the end of the month. That fraction is then multiplied by 100 to obtain a percentage. Annual capacity factors are calculated as the annual nuclear electricity net generation divided by the annual maximum possible nuclear electricity net generation (the sum of the monthly values for maximum possible nuclear electricity net generation).

Table 8.1 Sources

Total Operable Units and Net Summer Capacity of Operable Units

1973-1982: Compiled from various sources, primarily U.S. Department of Energy, Office of Nuclear Reactor Programs, "U.S. Central Station Nuclear Electric Generating Units: Significant Milestones."

1983 forward: U.S. Energy Information Administration (EIA), Form EIA-860, "Annual Electric Generator Report," and monthly updates as appropriate. For a list of currently operable units, see:

http://www.eia.doe.gov/cneaf/nuclear/page/nuc_reactors/operational.xls.

Nuclear Electricity Net Generation and Nuclear Share of Electricity Net Generation

See Table 7.2a.

Capacity Factor

Calculated by EIA using the method described above in Note 2.

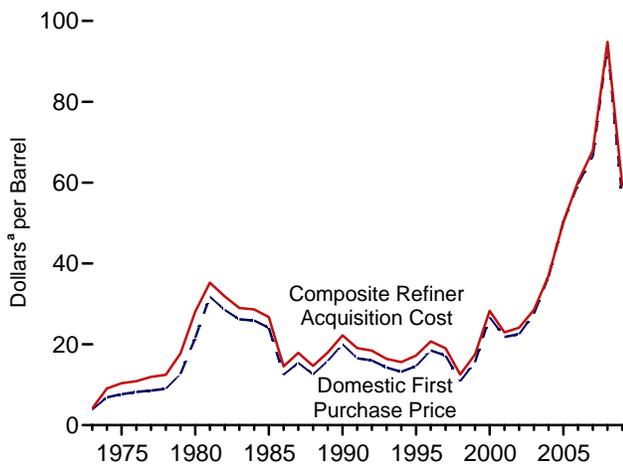
9

Energy Prices

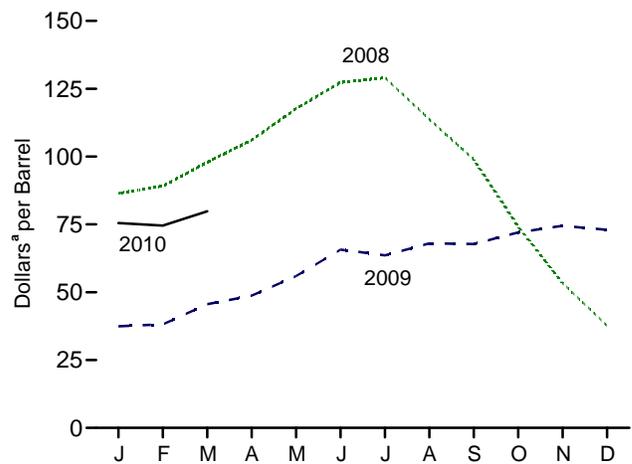


Figure 9.1 Petroleum Prices

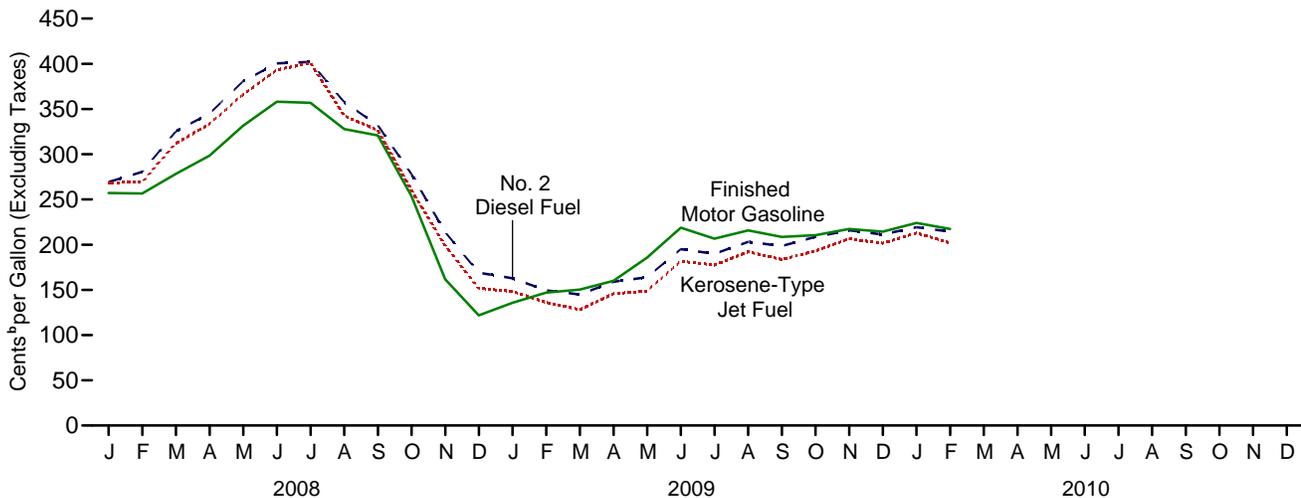
Crude Oil Prices, 1973-2009



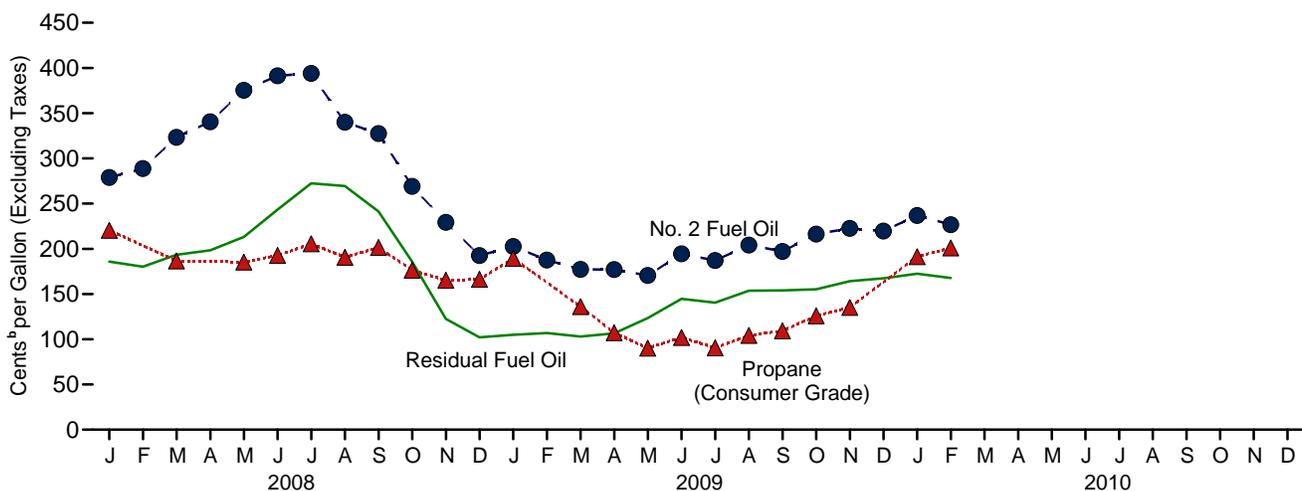
Composite Refiner Acquisition Cost, Monthly



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



^aPrices are not adjusted for inflation. See "Nominal Dollars" in Glossary.

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

^bPrices are not adjusted for inflation. See "Nominal Price" in Glossary.

Sources: Tables 9.1, 9.5, and 9.7.

Table 9.1 Crude Oil Price Summary

(Dollars^a per Barrel)

	Domestic First Purchase Price ^c	F.O.B. Cost of Imports ^d	Landed Cost of Imports ^e	Refiner Acquisition Cost ^b		
				Domestic	Imported	Composite
1973 Average	3.89	^f 5.21	^f 6.41	^E 4.17	^E 4.08	^E 4.15
1975 Average	7.67	11.18	12.70	8.39	13.93	10.38
1980 Average	21.59	32.37	33.67	24.23	33.89	28.07
1985 Average	24.09	25.84	26.67	26.66	26.99	26.75
1990 Average	20.03	20.37	21.13	22.59	21.76	22.22
1995 Average	14.62	15.69	16.78	17.33	17.14	17.23
1996 Average	18.46	19.32	20.31	20.77	20.64	20.71
1997 Average	17.23	16.94	18.11	19.61	18.53	19.04
1998 Average	10.87	10.76	11.84	13.18	12.04	12.52
1999 Average	15.56	16.47	17.23	17.90	17.26	17.51
2000 Average	26.72	26.27	27.53	29.11	27.70	28.26
2001 Average	21.84	20.46	21.82	24.33	22.00	22.95
2002 Average	22.51	22.63	23.91	24.65	23.71	24.10
2003 Average	27.56	25.86	27.69	29.82	27.71	28.53
2004 Average	36.77	33.75	36.07	38.97	35.90	36.98
2005 Average	50.28	47.60	49.29	52.94	48.86	50.24
2006 Average	59.69	57.03	59.11	62.62	59.02	60.24
2007 Average	66.52	66.36	67.97	69.65	67.04	67.94
2008 January	87.06	83.49	86.65	89.57	84.82	86.48
February	89.41	87.84	90.71	92.23	87.41	89.09
March	98.44	96.32	99.94	99.87	96.96	97.96
April	106.64	104.04	108.40	108.54	104.72	106.09
May	118.55	115.02	119.40	119.75	116.55	117.64
June	127.47	123.34	125.65	129.45	126.22	127.32
July	128.08	122.12	124.20	131.47	127.77	129.03
August	112.83	108.10	109.64	118.42	111.19	113.74
September	98.50	90.85	91.83	103.73	96.38	98.91
October	73.18	63.09	65.40	81.03	70.84	74.22
November	53.67	44.95	46.96	61.65	49.10	53.33
December	36.80	34.23	36.86	41.42	35.59	37.67
Average	94.04	90.32	93.33	98.47	92.77	94.74
2009 January	35.00	36.86	38.51	38.67	36.84	37.45
February	34.14	38.08	40.14	37.51	38.56	38.15
March	42.46	44.34	46.61	44.92	45.96	45.57
April	45.22	47.62	51.33	47.52	49.58	48.78
May	52.69	55.46	58.01	54.58	56.77	55.96
June	63.08	64.81	65.85	64.61	66.37	65.71
July	60.43	62.32	64.73	63.78	63.46	63.58
August	65.28	67.46	68.46	67.78	68.09	67.98
September	65.27	65.41	68.45	67.86	67.65	67.74
October	69.82	70.42	72.54	72.04	72.06	72.05
November	71.98	73.16	74.40	74.60	74.40	74.48
December	70.53	^R 71.24	^R 73.43	73.35	72.67	72.95
Average	56.39	57.74	^R 60.12	59.44	59.17	59.27
2010 January	72.89	^R 73.16	^R 74.66	76.04	75.07	75.48
February	^R 72.73	^R 71.30	^R 73.64	^R 75.92	^R 73.73	^R 74.58
March	NA	NA	NA	^E 80.16	^E 79.54	^E 79.85

^a Prices are not adjusted for inflation. See "Nominal Dollars" in Glossary.

^b See Note 4, "Crude Oil Refinery Acquisition Costs," at end of section.

^c See Note 1, "Crude Oil Domestic First Purchase Prices," at end of section.

^d See Note 2, "Crude Oil F.O.B. Costs," at end of section.

^e See Note 3, "Crude Oil Landed Costs," at end of section.

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

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

Notes: • Values for Domestic First Purchase Price and Refiner Acquisition Cost for the current two months and for F.O.B. and Landed Costs of Imports for the

current three 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: See <http://www.eia.doe.gov/emeu/mer/prices.html> for all available data beginning in 1973.

Sources: See end of section.

Table 9.2 F.O.B. Costs of Crude Oil Imports From Selected Countries
(Dollars^a per Barrel)

	Selected Countries							Persian Gulf Nations ^b	Total OPEC ^c	Total Non-OPEC ^c
	Angola	Colombia	Mexico	Nigeria	Saudi Arabia	United Kingdom	Venezuela			
1973 Average^d	W	W	–	7.81	3.25	–	5.39	3.68	5.43	4.80
1975 Average	10.97	–	11.44	11.82	10.87	–	11.04	10.88	11.34	10.62
1980 Average	33.45	W	31.06	35.93	28.17	34.36	24.81	28.92	32.21	32.85
1985 Average	26.30	–	25.33	28.04	22.04	27.64	23.64	23.31	25.67	25.96
1990 Average	20.23	20.75	19.26	22.46	20.36	23.43	19.55	18.54	20.40	20.32
1995 Average	16.58	16.73	15.64	17.40	W	16.94	13.86	W	15.36	16.02
1996 Average	20.71	21.33	19.14	21.27	19.28	19.43	17.73	19.22	18.94	19.65
1997 Average	18.81	18.85	16.72	19.43	15.16	18.59	15.33	15.24	16.26	17.51
1998 Average	12.11	12.56	10.49	12.97	8.87	12.52	9.31	9.09	10.20	11.21
1999 Average	17.46	17.20	15.89	17.32	17.65	19.14	14.33	17.15	15.90	16.84
2000 Average	27.90	29.04	25.39	28.70	24.62	27.21	24.45	24.72	25.56	26.77
2001 Average	23.25	24.25	18.89	24.85	18.98	23.30	18.01	18.89	19.73	21.04
2002 Average	24.09	24.64	21.60	25.38	23.92	24.50	20.13	23.38	22.18	22.93
2003 Average	28.22	28.89	24.83	29.40	25.03	28.76	23.81	25.17	25.36	26.21
2004 Average	37.26	37.73	31.55	38.71	34.08	37.30	31.78	33.08	33.95	33.58
2005 Average	52.48	51.89	43.00	55.95	47.96	54.48	46.39	47.21	49.60	45.79
2006 Average	62.23	59.77	52.91	65.69	56.09	66.03	55.80	56.02	59.18	55.35
2007 Average	67.80	67.93	61.35	76.64	W	69.96	64.10	69.93	69.58	62.69
2008 January	88.77	80.54	80.10	93.59	88.52	–	80.49	83.79	85.51	80.72
February	93.84	83.63	80.49	98.72	W	W	84.10	94.00	91.87	83.21
March	101.34	99.67	87.46	107.04	W	–	89.63	101.72	99.90	92.25
April	110.80	106.06	94.08	114.87	W	–	96.71	113.04	108.19	98.89
May	119.61	117.49	103.53	127.35	123.98	–	107.89	121.13	118.23	111.30
June	130.72	125.58	116.15	140.01	125.58	W	119.15	124.37	126.30	120.14
July	127.19	122.27	123.19	134.58	110.61	W	123.18	110.34	121.93	122.37
August	107.58	108.36	108.45	117.21	107.54	W	110.20	105.06	108.99	107.17
September	92.42	95.87	92.26	95.68	70.86	W	92.76	75.41	89.61	92.24
October	62.08	61.83	63.74	67.28	66.18	W	60.35	61.78	62.77	63.42
November	48.16	42.14	42.37	51.45	47.97	–	42.22	45.14	45.61	44.30
December	W	W	32.86	44.02	W	–	32.98	35.69	35.79	32.90
Average	95.66	91.17	84.61	102.06	93.03	96.33	88.06	91.44	93.15	87.15
2009 January	39.88	26.24	36.96	46.12	W	W	36.68	35.24	37.60	36.15
February	40.60	32.55	37.59	45.02	W	–	38.03	36.38	39.71	36.81
March	44.76	46.69	40.94	49.91	48.31	W	41.77	47.66	45.75	42.96
April	50.57	W	46.71	52.93	W	–	45.82	51.05	48.67	46.86
May	55.79	54.17	55.49	57.80	W	–	54.36	58.05	55.89	55.12
June	67.03	62.94	63.83	68.74	W	–	63.16	64.14	65.36	64.34
July	63.34	58.58	60.42	69.73	W	–	60.16	63.42	63.25	61.39
August	W	64.41	67.20	72.37	66.37	W	65.42	66.17	67.62	67.31
September	67.49	63.68	64.51	69.65	W	–	64.18	67.25	65.91	65.04
October	71.19	69.59	68.71	76.33	W	W	66.95	73.45	70.48	70.38
November	76.89	70.96	72.71	77.58	W	W	69.43	72.99	73.60	72.81
December	74.56	66.72	69.75	76.06	W	–	^R 68.32	72.85	^R 72.48	^R 70.01
Average	57.13	57.79	56.47	64.12	^R 57.85	65.63	55.46	59.50	58.42	^R 57.16
2010 January	^R 74.62	^R 70.09	^R 72.96	^R 75.91	W	–	71.15	W	^R 73.84	^R 72.54
February	W	68.70	69.14	75.32	W	–	68.56	71.67	71.34	71.26

^a Prices are not adjusted for inflation. See "Nominal Dollars" in Glossary.

^b Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, United Arab Emirates, and the Neutral Zone (between Kuwait and Saudi Arabia).

^c See "Organization of the Petroleum Exporting Countries (OPEC)" in Glossary. On this table, "Total OPEC" for all years includes Algeria, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates, and Venezuela; for 1973-2008, also includes Indonesia; for 1973-1992 and again beginning in 2008, also includes Ecuador (although Ecuador rejoined OPEC in November 2007, on this table Ecuador is included in "Total Non-OPEC" for 2007); for 1974-1995, also includes Gabon (although Gabon was a member of OPEC for only 1975-1994); and beginning in 2007, also includes Angola. Data for all countries not included in "Total OPEC" are included in "Total Non-OPEC."

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

^R=Revised. – =No data reported. 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 "F.O.B." in Glossary, and Note 2, "Crude Oil F.O.B. Costs," at end of section. • Values for the current two months are preliminary. • Prices through 1980 reflect the period of reporting; prices since then reflect the period of loading. • Annual averages are averages of the monthly prices, including prices not published, weighted by volume. • Cargoes that are purchased on a "netback" basis, or under similar contractual arrangements whereby the actual purchase price is not established at the time the crude oil is acquired for importation into the United States, are not included in the published data until the actual prices have been determined and reported. • U.S. geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/prices.html> for all available data beginning in 1973.

Sources: See end of section.

Table 9.3 Landed Costs of Crude Oil Imports From Selected Countries
(Dollars^a per Barrel)

	Selected Countries								Persian Gulf Nations ^b	Total OPEC ^c	Total Non-OPEC ^c
	Angola	Canada	Colombia	Mexico	Nigeria	Saudi Arabia	United Kingdom	Venezuela			
1973 Average ^d	W	5.33	W	-	9.08	5.37	-	5.99	5.91	6.85	5.64
1975 Average	11.81	12.84	-	12.61	12.70	12.50	-	12.36	12.64	12.70	12.70
1980 Average	34.76	30.11	W	31.77	37.15	29.80	35.68	25.92	30.59	33.56	33.99
1985 Average	27.39	25.71	-	25.63	28.96	24.72	28.36	24.43	25.50	26.86	26.53
1990 Average	21.51	20.48	22.34	19.64	23.33	21.82	22.65	20.31	20.55	21.23	20.98
1995 Average	17.66	16.65	17.45	16.19	18.25	16.84	17.91	14.81	16.78	16.61	16.95
1996 Average	21.86	19.94	22.02	19.64	21.95	20.49	20.88	18.59	20.45	20.14	20.47
1997 Average	20.24	17.63	19.71	17.30	20.64	17.52	20.64	16.35	17.44	17.73	18.45
1998 Average	13.37	11.62	13.26	11.04	14.14	11.16	13.55	10.16	11.18	11.46	12.22
1999 Average	18.37	17.54	18.09	16.12	17.63	17.48	18.26	15.58	17.37	16.94	17.51
2000 Average	29.57	26.69	29.68	26.03	30.04	26.58	29.26	26.05	26.77	27.29	27.80
2001 Average	25.13	20.72	25.88	19.37	26.55	20.98	25.32	19.81	20.73	21.52	22.17
2002 Average	25.43	22.98	25.28	22.09	26.45	24.77	26.35	21.93	24.13	23.83	23.97
2003 Average	30.14	26.76	30.55	25.48	31.07	27.50	30.62	25.70	27.54	27.70	27.68
2004 Average	39.62	34.51	39.03	32.25	40.95	37.11	39.28	33.79	36.53	36.84	35.29
2005 Average	54.31	44.73	53.42	43.47	57.55	50.31	55.28	47.87	49.68	51.36	47.31
2006 Average	64.85	53.90	62.13	53.76	68.26	59.19	67.44	57.37	58.92	61.21	57.14
2007 Average	71.27	60.38	70.91	62.31	78.01	70.78	72.47	66.13	69.83	71.14	63.96
2008 January	93.21	77.83	85.22	81.28	97.03	92.42	W	83.23	89.70	89.66	82.10
February	97.79	81.40	85.20	81.33	101.23	97.64	W	86.34	96.04	94.71	85.13
March	106.19	93.34	102.88	88.49	109.73	108.26	W	93.01	105.39	103.78	94.65
April	117.34	103.08	105.95	95.27	117.83	118.54	W	100.13	115.56	112.11	103.30
May	127.06	111.83	118.43	104.42	130.89	126.38	128.95	111.77	124.49	122.98	114.83
June	133.68	119.41	127.35	117.29	142.66	125.38	W	122.29	125.28	128.10	122.57
July	128.58	122.83	126.22	124.28	137.22	116.22	W	124.91	116.43	124.20	124.20
August	110.00	110.63	113.17	109.61	123.02	104.42	104.13	111.78	103.92	109.56	109.74
September	94.05	96.38	97.72	93.59	98.82	77.92	88.13	95.67	78.65	89.55	94.43
October	62.74	69.52	62.09	65.65	72.38	62.89	69.17	62.47	60.47	64.33	66.68
November	49.22	49.00	44.28	43.05	55.13	47.77	60.68	44.08	46.29	47.34	46.52
December	40.13	33.39	35.28	33.94	47.15	38.28	-	34.95	37.86	38.36	35.17
Average	98.18	90.00	93.43	85.97	104.83	94.75	96.95	90.76	93.59	95.49	90.59
2009 January	43.88	34.17	32.08	38.08	47.68	39.78	W	39.14	39.01	39.93	36.89
February	42.83	35.83	34.49	38.16	46.71	44.46	W	39.58	42.56	42.49	38.07
March	47.80	44.22	46.70	41.76	51.86	51.71	47.44	43.86	50.35	48.29	45.09
April	53.54	47.61	46.86	47.26	58.10	57.32	52.41	48.25	57.16	54.08	48.70
May	56.66	54.42	54.90	56.22	62.71	61.93	58.66	56.28	61.46	59.53	56.73
June	68.42	64.00	65.65	64.39	69.19	66.24	67.33	64.52	66.27	66.63	65.11
July	66.73	62.18	63.24	60.99	71.08	65.97	W	62.11	66.20	66.13	63.29
August	72.48	64.23	66.71	67.71	73.83	69.33	73.66	67.23	69.08	69.91	66.96
September	72.55	66.58	66.27	65.00	71.98	72.77	W	65.85	71.93	69.95	66.84
October	75.03	70.28	71.24	69.40	77.77	74.20	W	68.85	74.18	73.68	71.41
November	78.25	71.95	72.70	73.29	79.05	73.92	W	71.41	73.99	75.18	73.67
December	R 77.11	R 70.01	R 70.18	70.20	R 78.41	R 73.08	R 78.13	R 70.46	R 74.54	R 74.92	R 71.84
Average	R 61.27	R 57.59	R 58.35	57.35	R 67.59	R 62.03	R 63.53	57.70	R 61.99	R 61.73	R 58.55
2010 January	R 77.32	R 72.52	R 74.56	R 73.22	R 78.56	R 76.37	W	R 72.91	R 75.93	R 75.99	R 73.39
February	75.66	73.27	72.64	69.57	77.85	75.29	W	70.76	75.26	74.28	72.93

^a Prices are not adjusted for inflation. See "Nominal Dollars" in Glossary.

^b Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, United Arab Emirates, and the Neutral Zone (between Kuwait and Saudi Arabia).

^c See "Organization of the Petroleum Exporting Countries (OPEC)" in Glossary. On this table, "Total OPEC" for all years includes Algeria, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates, and Venezuela; for 1973-2008, also includes Indonesia; for 1973-1992 and again beginning in 2008, also includes Ecuador (although Ecuador rejoined OPEC in November 2007, on this table Ecuador is included in "Total Non-OPEC" for 2007); for 1974-1995, also includes Gabon (although Gabon was a member of OPEC for only 1975-1994); and beginning in 2007, also includes Angola. Data for all countries not included in "Total OPEC" are included in "Total Non-OPEC."

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

R=Revised. - =No data reported. W=Value withheld to avoid disclosure of individual company data.

Notes: • See "Landed Costs" in Glossary, and Note 3, "Crude Oil Landed

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

Web Page: See <http://www.eia.doe.gov/emeu/mer/prices.html> for all available data beginning in 1973.

Sources: • **October 1973-September 1977:** Federal Energy Administration, Form FEA-F701-M-0, "Transfer Pricing Report." • **October 1977-December 1977:** U.S. Energy Information Administration (EIA), Form FEA-F701-M-0, "Transfer Pricing Report." • **1978-2008:** EIA, *Petroleum Marketing Annual 2008*, Table 22. • **2009 and 2010:** EIA, *Petroleum Marketing Monthly*, May 2010, Table 22.

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

(Cents^a per Gallon, Including Taxes)

	Leaded Regular	Unleaded Regular	Unleaded Premium ^b	All Types ^c
1973 Average	38.8	NA	NA	NA
1975 Average	56.7	NA	NA	NA
1980 Average	119.1	124.5	NA	122.1
1985 Average	111.5	120.2	134.0	119.6
1990 Average	114.9	116.4	134.9	121.7
1995 Average	NA	114.7	133.6	120.5
1996 Average	NA	123.1	141.3	128.8
1997 Average	NA	123.4	141.6	129.1
1998 Average	NA	105.9	125.0	111.5
1999 Average	NA	116.5	135.7	122.1
2000 Average	NA	151.0	169.3	156.3
2001 Average	NA	146.1	165.7	153.1
2002 Average	NA	135.8	155.6	144.1
2003 Average	NA	159.1	177.7	163.8
2004 Average	NA	188.0	206.8	192.3
2005 Average	NA	229.5	249.1	233.8
2006 Average	NA	258.9	280.5	263.5
2007 Average	NA	280.1	303.3	284.9
2008 January	NA	304.7	329.1	309.6
February	NA	303.3	327.2	308.3
March	NA	325.8	350.2	330.7
April	NA	344.1	369.0	349.1
May	NA	376.4	400.3	381.3
June	NA	406.5	431.9	411.5
July	NA	409.0	435.0	414.2
August	NA	378.6	404.5	383.8
September	NA	369.8	394.0	374.9
October	NA	317.3	343.2	322.5
November	NA	215.1	243.3	220.8
December	NA	168.9	195.1	174.2
Average	NA	326.6	351.9	331.7
2009 January	NA	178.7	203.6	183.8
February	NA	192.8	218.2	197.9
March	NA	194.9	219.7	200.0
April	NA	205.6	230.9	210.7
May	NA	226.5	251.1	231.4
June	NA	263.1	288.3	268.1
July	NA	254.3	280.6	259.4
August	NA	262.7	288.7	267.7
September	NA	257.4	284.5	262.6
October	NA	256.1	282.6	261.3
November	NA	266.0	291.7	270.9
December	NA	262.1	288.2	267.1
Average	NA	235.0	260.7	240.1
2010 January	NA	273.1	298.7	277.9
February	NA	265.9	292.2	270.9
March	NA	278.0	303.5	282.9
April	NA	285.8	311.3	290.6

^a Prices are not adjusted for inflation. See "Nominal Price" in Glossary.

^b The 1981 average (available in Web file) is based on September through December data only.

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

NA=Not available.

Notes: • See Note 5, "Motor Gasoline Prices," at end of section. • In September 1981, the Bureau of Labor Statistics changed the weights used in the calculation of average motor gasoline prices. From September 1981 forward, gasohol is included in the average for all types, and unleaded premium is weighted

more heavily. • Geographic coverage for 1973-1977 is 56 urban areas. Geographic coverage for 1978 forward is 85 urban areas.

Web Page: See <http://www.eia.doe.gov/emeu/mer/prices.html> for all available data beginning in 1973.

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 U.S. Energy Information Administration as the simple averages of monthly data.

Table 9.5 Refiner Prices of Residual Fuel Oil

(Cents^a per Gallon, Excluding Taxes)

	Residual Fuel Oil Sulfur Content Less Than or Equal to 1 Percent		Residual Fuel Oil Sulfur Content Greater Than 1 Percent		Average	
	Sales for Resale	Sales to End Users	Sales for Resale	Sales to End Users	Sales for Resale	Sales to End Users
1978 Average	29.3	31.4	24.5	27.5	26.3	29.8
1980 Average	60.8	67.5	47.9	52.3	52.8	60.7
1985 Average	61.0	64.4	56.0	58.2	57.7	61.0
1990 Average	47.2	50.5	37.2	40.0	41.3	44.4
1995 Average	38.3	43.6	33.8	37.7	36.3	39.2
1996 Average	45.6	52.6	38.9	43.3	42.0	45.5
1997 Average	41.5	48.8	36.6	40.3	38.7	42.3
1998 Average	29.9	35.4	26.9	28.7	28.0	30.5
1999 Average	38.2	40.5	32.9	36.2	35.4	37.4
2000 Average	62.7	70.8	51.2	56.6	56.6	60.2
2001 Average	52.3	64.2	42.8	49.2	47.6	53.1
2002 Average	54.6	64.0	50.8	54.4	53.0	56.9
2003 Average	72.8	80.4	58.8	65.1	66.1	69.8
2004 Average	76.4	83.5	60.1	69.2	68.1	73.9
2005 Average	111.5	116.8	84.2	97.4	97.1	104.8
2006 Average	120.2	134.2	108.5	117.3	113.6	121.8
2007 Average	140.6	143.6	131.4	135.0	135.0	137.4
2008 January	199.7	203.9	166.2	178.3	176.4	185.9
February	187.0	200.4	162.5	172.0	171.4	180.2
March	195.6	204.8	171.7	188.1	176.9	193.4
April	213.9	222.1	182.2	190.4	188.0	198.3
May	232.2	234.9	198.9	206.9	204.2	213.2
June	257.8	265.8	218.1	233.3	227.4	243.4
July	283.3	294.5	254.2	265.7	263.6	272.4
August	254.6	300.5	244.5	255.4	248.6	269.4
September	217.5	266.6	218.0	230.0	217.9	241.2
October	157.4	216.6	160.3	175.9	159.2	185.9
November	103.6	165.4	97.1	105.5	100.4	122.5
December	101.0	121.1	78.4	87.7	87.6	102.1
Average	191.8	214.4	184.3	188.9	186.6	196.4
2009 January	103.5	116.4	89.0	95.3	94.7	104.9
February	101.1	120.4	91.8	97.4	95.4	106.8
March	101.9	118.3	91.7	95.2	95.2	103.0
April	107.7	117.4	99.2	102.7	101.7	106.6
May	120.5	121.3	119.1	124.5	119.5	123.4
June	140.1	144.0	137.3	145.0	138.1	144.7
July	141.7	148.8	139.9	136.9	140.5	140.4
August	158.6	164.1	156.7	148.8	157.3	153.6
September	153.3	168.9	155.5	149.2	154.9	154.0
October	161.9	171.7	154.8	150.1	156.0	155.3
November	174.3	173.9	170.0	160.2	171.1	164.2
December	172.3	181.8	167.3	161.4	168.4	167.3
Average	133.7	141.3	134.9	130.6	134.6	134.1
2010 January	176.7	185.2	^R 170.5	166.0	^R 172.1	172.5
February	172.4	185.8	165.0	157.4	166.6	167.8

^a Prices are not adjusted for inflation. See "Nominal Price" in Glossary.
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 U.S. Energy Information Administration (EIA) estimates. See Note

6, "Historical Petroleum Prices," at end of section. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/prices.html> for all available data beginning in 1978.

Sources: • **1978-2008:** EIA, *Petroleum Marketing Annual 2008*, Table 16.
• **2009 and 2010:** EIA, *Petroleum Marketing Monthly*, May 2010, Table 16.

Table 9.6 Refiner Prices of Petroleum Products for Resale
(Cents^a per Gallon, Excluding Taxes)

	Finished Motor Gasoline ^b	Finished Aviation Gasoline	Kerosene-Type Jet Fuel	Kerosene	No. 2 Fuel Oil	No. 2 Diesel Fuel	Propane (Consumer Grade)
1978 Average	43.4	53.7	38.6	40.4	36.9	36.5	23.7
1980 Average	94.1	112.8	86.8	86.4	80.3	80.1	41.5
1985 Average	83.5	113.0	79.4	87.4	77.6	77.2	39.8
1990 Average	78.6	106.3	77.3	83.9	69.7	69.4	38.6
1995 Average	62.6	97.5	53.9	58.0	51.1	53.8	34.4
1996 Average	71.3	105.5	64.6	71.4	63.9	65.9	46.1
1997 Average	70.0	106.5	61.3	65.3	59.0	60.6	41.6
1998 Average	52.6	91.2	45.0	46.5	42.2	44.4	28.8
1999 Average	64.5	100.7	53.3	55.0	49.3	54.6	34.2
2000 Average	96.3	133.0	88.0	96.9	88.6	89.8	59.5
2001 Average	88.6	125.6	76.3	82.1	75.6	78.4	54.0
2002 Average	82.8	114.6	71.6	75.2	69.4	72.4	43.1
2003 Average	100.2	128.8	87.1	95.5	88.1	88.3	60.7
2004 Average	128.8	162.7	120.8	127.1	112.5	118.7	75.1
2005 Average	167.0	207.6	172.3	175.7	162.3	173.7	93.3
2006 Average	196.9	249.0	196.1	200.7	183.4	201.2	103.1
2007 Average	218.2	275.8	217.1	224.9	207.2	220.3	119.4
2008 January	239.5	296.9	266.5	283.2	256.4	258.0	151.9
February	243.6	300.7	267.4	284.2	260.7	273.8	146.9
March	264.0	326.3	310.6	328.1	297.7	315.8	149.5
April	286.1	346.8	331.5	354.3	319.5	335.6	157.1
May	317.2	375.1	364.2	376.7	353.6	371.2	167.5
June	341.6	401.8	391.2	397.3	376.1	385.9	176.1
July	334.7	394.6	397.8	398.0	380.2	387.6	183.3
August	307.8	373.7	339.3	345.6	328.7	333.8	166.7
September	300.0	370.5	327.8	336.5	300.3	316.0	156.5
October	214.9	279.0	256.9	268.1	240.0	251.4	124.2
November	139.3	214.0	197.4	228.8	194.7	195.5	100.5
December	106.1	179.9	147.0	171.5	157.9	146.9	91.6
Average	258.6	334.2	302.0	285.1	274.5	299.4	143.7
2009 January	124.5	185.1	147.1	181.0	155.0	147.9	97.4
February	133.2	203.8	134.6	160.7	142.1	132.6	90.1
March	139.7	203.1	126.5	145.6	135.8	131.3	80.5
April	148.2	222.5	142.2	148.0	139.7	145.5	72.0
May	176.2	247.8	146.1	153.9	146.2	152.9	73.2
June	202.4	274.3	178.0	184.1	174.4	182.8	82.1
July	186.7	254.8	175.9	177.3	165.6	174.4	75.6
August	202.6	275.9	189.2	195.1	180.4	193.6	83.1
September	191.5	259.2	182.1	185.7	177.3	184.8	91.4
October	197.5	259.6	191.7	205.0	191.8	197.8	99.4
November	203.8	270.1	205.5	207.5	199.3	203.7	107.9
December	199.9	265.5	201.1	214.8	198.9	199.7	117.8
Average	176.6	247.8	171.2	184.9	165.6	171.2	91.9
2010 January	^R 209.7	275.9	212.1	228.2	207.5	207.8	133.2
February	203.3	266.2	199.9	221.6	198.7	202.5	131.4

^a Prices are not adjusted for inflation. See "Nominal Price" in Glossary.

^b See Note 5, "Motor Gasoline Prices," 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 U.S. Energy

Information Administration (EIA) estimates. See Note 6, "Historical Petroleum Prices," at end of section. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/prices.html> for all available data beginning in 1978.

Sources: • **1978-2008:** EIA, *Petroleum Marketing Annual 2008*, Table 4. • **2009 and 2010:** EIA, *Petroleum Marketing Monthly*, May 2010, Table 4.

Table 9.7 Refiner Prices of Petroleum Products to End Users

(Cents^a per Gallon, Excluding Taxes)

	Finished Motor Gasoline ^b	Finished Aviation Gasoline	Kerosene-Type Jet Fuel	Kerosene	No. 2 Fuel Oil	No. 2 Diesel Fuel	Propane (Consumer Grade)
1978 Average	48.4	51.6	38.7	42.1	40.0	37.7	33.5
1980 Average	103.5	108.4	86.8	90.2	78.8	81.8	48.2
1985 Average	91.2	120.1	79.6	103.0	84.9	78.9	71.7
1990 Average	88.3	112.0	76.6	92.3	73.4	72.5	74.5
1995 Average	76.5	100.5	54.0	58.9	56.2	56.0	49.2
1996 Average	84.7	111.6	65.1	74.0	67.3	68.1	60.5
1997 Average	83.9	112.8	61.3	74.5	63.6	64.2	55.2
1998 Average	67.3	97.5	45.2	50.1	48.2	49.4	40.5
1999 Average	78.1	105.9	54.3	60.5	55.8	58.4	45.8
2000 Average	110.6	130.6	89.9	112.3	92.7	93.5	60.3
2001 Average	103.2	132.3	77.5	104.5	82.9	84.2	50.6
2002 Average	94.7	128.8	72.1	99.0	73.7	76.2	41.9
2003 Average	115.6	149.3	87.2	122.4	93.3	94.4	57.7
2004 Average	143.5	181.9	120.7	116.0	117.3	124.3	83.9
2005 Average	182.9	223.1	173.5	195.7	170.5	178.6	108.9
2006 Average	212.8	268.2	199.8	224.4	198.2	209.6	135.8
2007 Average	234.5	284.9	216.5	226.3	224.1	226.7	148.9
2008 January	257.1	298.7	268.5	338.1	279.0	269.2	220.6
February	256.6	295.4	269.3	340.4	288.8	280.5	NA
March	278.3	329.6	312.0	359.2	323.2	325.2	186.5
April	298.4	335.8	333.4	377.4	340.5	345.1	NA
May	331.6	361.5	366.1	395.0	375.3	380.8	185.3
June	358.0	396.5	393.3	415.9	391.4	400.4	192.8
July	356.8	392.9	400.8	439.3	393.9	402.1	205.5
August	327.9	379.2	342.5	405.5	339.9	357.6	190.6
September	320.7	383.7	326.6	401.3	327.5	332.0	201.5
October	253.7	297.5	260.3	299.3	269.0	278.1	176.3
November	161.7	223.0	198.8	308.5	229.3	213.9	165.2
December	121.9	181.4	151.8	282.3	192.6	169.0	166.4
Average	277.5	327.3	305.2	328.3	298.6	315.0	189.2
2009 January	135.7	185.7	148.2	261.3	202.6	162.9	189.4
February	146.9	196.1	136.0	263.1	187.7	149.5	NA
March	150.3	196.4	128.1	256.5	177.2	144.9	136.0
April	160.0	215.0	145.8	254.0	177.0	158.9	107.2
May	185.6	242.3	148.7	249.7	170.6	164.0	90.1
June	218.7	270.7	181.8	249.0	194.4	195.0	102.0
July	206.7	260.7	177.4	246.2	187.1	189.9	90.5
August	215.7	276.3	192.2	254.5	204.1	203.1	104.3
September	208.6	268.4	183.5	NA	197.2	198.5	109.3
October	210.4	269.3	193.0	273.8	216.3	208.6	125.8
November	217.3	283.9	206.4	287.5	222.7	216.0	135.2
December	214.4	279.0	201.6	289.4	219.7	211.2	NA
Average	188.8	243.8	170.4	267.2	196.3	183.3	123.6
2010 January	224.0	291.4	212.9	298.6	236.9	219.2	^R 191.3
February	217.3	285.5	201.8	297.4	226.6	214.4	201.0

^a Prices are not adjusted for inflation. See "Nominal Price" in Glossary.

^b See Note 5, "Motor Gasoline Prices," at end of section.

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

Notes: • Sales to end users are those made directly to ultimate consumers, including bulk consumers (such as agriculture, industry, and electric utilities) and residential and commercial consumers. Sales for resale are shown in Table 9.6; they are sales made to purchasers other than ultimate consumers. • Values for

the current month are preliminary. • Prices prior to 1983 are U.S. Energy Information Administration (EIA) estimates. See Note 6, "Historical Petroleum Prices," at end of section. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/prices.html> for all available data beginning in 1978.

Sources: • **1978-2008:** EIA, *Petroleum Marketing Annual 2008*, Table 2. • **2009 and 2010:** EIA, *Petroleum Marketing Monthly*, May 2010, Table 2.

Table 9.8a No. 2 Distillate Prices to Residences: Northeastern States
(Cents^a per Gallon, Excluding Taxes)

	Maine	New Hampshire	Vermont	Massachusetts	Rhode Island	Connecticut	New York	New Jersey	Pennsylvania
1978 Average	48.6	50.3	50.8	48.8	50.7	50.1	50.1	49.6	48.8
1980 Average	96.3	100.4	101.5	97.8	101.1	98.3	98.2	97.9	96.4
1985 Average	99.7	102.4	107.7	107.0	106.7	108.0	111.3	105.9	102.3
1990 Average	98.9	102.8	107.0	108.4	108.6	109.8	112.5	108.7	102.6
1995 Average	78.7	77.9	85.3	84.4	87.4	86.4	95.5	88.8	82.6
1996 Average	97.2	94.0	96.9	97.6	98.6	98.6	106.3	102.4	95.3
1997 Average	94.2	94.2	98.7	96.0	98.9	96.3	106.5	103.3	95.0
1998 Average	78.8	78.8	87.3	81.8	86.8	83.1	94.8	89.2	81.4
1999 Average	81.3	77.0	85.4	83.6	85.8	85.2	96.9	91.3	81.5
2000 Average	129.7	128.1	125.5	127.3	125.9	129.1	144.2	140.4	122.4
2001 Average	121.7	125.6	126.1	122.1	123.6	123.9	136.3	131.4	115.9
2002 Average	112.9	111.9	117.2	114.1	112.4	111.8	121.8	122.0	106.4
2003 Average	131.4	131.2	130.9	138.6	134.4	135.5	143.6	148.9	130.4
2004 Average	151.1	149.7	150.5	155.9	151.1	151.8	162.7	166.2	148.9
2005 Average	198.6	197.2	198.7	206.4	200.0	201.2	210.5	216.6	197.4
2006 Average	229.4	228.3	240.8	235.5	236.0	235.7	245.8	246.7	228.6
2007 Average	254.0	253.5	267.9	257.6	260.2	261.5	267.4	266.4	250.8
2008									
January	304.6	305.1	309.5	313.6	317.3	309.1	321.8	332.5	305.7
February	305.0	305.0	310.5	319.3	320.2	312.3	325.8	335.1	309.7
March	330.9	331.1	337.1	352.5	349.5	336.2	352.1	369.0	340.3
April	349.0	347.4	357.5	370.1	366.2	349.4	364.9	385.5	355.3
May	376.3	384.3	391.3	397.7	392.7	380.6	393.4	413.5	385.1
June	419.7	425.7	425.2	429.3	417.6	411.3	416.4	447.2	416.4
July	429.0	442.7	448.4	435.9	428.7	419.4	428.9	455.4	432.6
August	395.7	404.8	417.6	389.2	384.2	NA	388.9	402.3	NA
September	375.7	376.8	393.9	362.8	357.5	368.1	371.8	376.1	357.3
October	322.8	331.8	350.2	306.7	300.0	319.9	329.5	319.8	310.3
November	279.5	285.7	313.7	264.6	273.5	288.6	296.2	272.7	275.7
December	251.3	255.9	280.2	233.9	240.8	261.3	258.9	238.1	244.9
Average	319.9	320.7	332.3	319.7	321.0	319.5	329.3	326.7	315.7
2009									
January	250.4	248.6	273.8	236.9	235.7	256.7	253.3	239.4	242.4
February	237.9	238.0	265.4	224.7	222.6	242.4	244.0	229.1	226.7
March	224.0	224.4	251.8	217.8	213.8	235.7	232.6	216.7	220.0
April	224.4	220.8	242.0	220.8	214.0	230.9	233.0	218.8	218.0
May	217.5	212.2	236.4	216.2	207.5	222.3	228.7	219.2	217.7
June	227.5	218.0	237.2	238.0	237.6	240.6	242.0	238.2	220.7
July	225.3	213.3	232.2	232.0	227.9	234.8	241.0	232.5	213.8
August	234.8	222.8	239.0	245.4	243.8	248.1	251.2	245.2	225.7
September	232.9	226.3	241.2	242.6	233.5	234.6	246.4	242.0	219.6
October	239.3	235.8	249.3	250.5	251.6	251.3	258.1	254.4	231.5
November	246.7	248.2	261.2	262.5	268.3	264.1	274.5	271.3	251.5
December	248.9	250.9	264.9	263.6	271.5	266.2	273.1	273.3	253.4
Average	237.7	236.4	257.7	237.3	237.5	248.2	250.3	240.5	232.8
2010									
January	^R 258.3	261.1	275.3	^R 276.2	^R 285.6	^R 276.4	^R 289.3	^R 292.8	^R 269.2
February	253.6	260.0	270.9	272.4	277.6	272.7	284.1	286.2	271.2

^a Prices are not adjusted for inflation. See "Nominal Price" in Glossary.
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 U.S. Energy Information Administration (EIA) estimates. See Note

6, "Historical Petroleum Prices," at end of section.

Web Page: See <http://www.eia.doe.gov/emeu/mer/prices.html> for all available data beginning in 1978.

Sources: • **1978-2008:** EIA, *Petroleum Marketing Annual 2008*, Table 15.
• **2009 and 2010:** EIA, *Petroleum Marketing Monthly*, May 2010, Table 15.

Table 9.8b No. 2 Distillate Prices to Residences: Selected South Atlantic and Midwestern States (Cents^a per Gallon, Excluding Taxes)

	Delaware	District of Columbia	Maryland	Virginia	West Virginia	Ohio	Michigan	Indiana	Illinois	Wisconsin	Minnesota
1978 Average	47.8	50.7	49.2	49.1	46.2	47.4	47.9	48.5	46.5	44.7	47.8
1980 Average	95.4	102.6	97.9	98.5	92.2	91.9	97.8	99.6	95.8	91.5	99.9
1985 Average	104.6	114.3	108.8	106.3	98.0	99.7	102.1	99.1	97.5	98.3	101.9
1990 Average	105.8	107.8	111.9	110.6	99.1	98.1	100.9	99.3	96.1	94.2	101.4
1995 Average	87.0	101.0	93.6	84.4	81.5	80.8	86.0	81.6	78.5	81.2	80.1
1996 Average	98.4	117.8	106.3	95.2	96.0	92.1	97.7	91.2	89.3	89.9	90.9
1997 Average	98.4	117.4	105.7	94.8	96.2	91.3	94.2	86.5	87.0	93.3	89.9
1998 Average	85.8	102.2	90.2	85.6	81.8	76.7	80.4	74.8	73.5	80.1	73.8
1999 Average	88.4	101.1	90.7	87.0	78.9	82.0	88.3	79.3	71.6	84.7	77.4
2000 Average	127.0	W	135.1	126.9	125.1	122.0	NA	120.7	109.5	117.1	115.6
2001 Average	123.4	143.1	134.2	120.2	113.9	116.0	NA	113.3	112.1	118.0	112.2
2002 Average	116.4	W	120.1	105.7	105.4	105.8	110.9	102.5	97.5	107.3	105.1
2003 Average	143.3	W	145.5	131.1	130.4	128.4	132.1	120.2	119.8	126.9	121.8
2004 Average	157.0	W	163.2	146.2	149.3	147.5	153.9	153.7	140.5	146.5	143.3
2005 Average	207.5	W	212.7	204.4	204.3	200.9	205.3	201.7	202.1	199.3	198.7
2006 Average	238.1	W	239.8	226.8	226.1	224.4	232.9	231.7	231.2	229.7	226.8
2007 Average	258.4	W	266.8	240.7	247.8	249.4	258.8	255.7	252.8	257.1	258.7
2008 January	322.8	W	326.4	306.4	311.5	304.6	304.6	306.3	300.5	303.9	297.1
February	326.0	W	331.1	314.8	316.3	318.4	316.9	312.3	310.0	311.4	311.1
March	354.8	W	354.5	340.6	347.9	354.8	359.1	345.3	357.4	351.2	352.8
April	362.6	W	367.2	352.8	363.9	372.6	370.2	364.3	368.5	365.7	371.3
May	390.3	W	402.9	384.8	391.6	407.6	400.0	409.1	405.0	395.6	399.7
June	423.1	W	424.6	412.6	425.2	417.5	421.4	427.4	NA	NA	417.1
July	434.5	W	441.4	412.3	430.6	414.7	417.8	426.4	401.1	399.3	416.3
August	389.8	W	408.7	376.4	386.3	379.4	373.8	379.7	NA	366.6	379.4
September	362.4	W	382.8	355.8	356.6	367.0	365.2	368.8	360.0	360.1	365.8
October	314.8	W	329.7	315.8	316.2	301.9	307.9	309.8	303.9	308.6	309.8
November	267.7	W	289.4	266.8	268.8	250.9	248.5	252.6	251.4	252.0	258.2
December	244.1	W	255.0	235.0	233.3	208.1	207.9	211.8	212.9	211.1	207.2
Average	318.7	W	327.3	312.4	322.1	314.7	306.7	310.5	315.2	308.8	306.5
2009 January	241.0	W	245.6	222.3	230.0	204.6	200.1	206.1	206.9	200.2	197.6
February	229.3	W	239.2	215.3	220.2	189.3	187.6	190.9	186.9	185.4	181.8
March	225.3	W	226.6	200.5	204.2	182.1	180.6	181.9	183.3	178.2	173.7
April	226.6	W	225.2	NA	203.3	190.0	181.4	192.2	198.2	187.2	189.1
May	225.3	W	221.5	182.2	199.9	192.2	180.9	197.2	NA	197.6	187.2
June	228.9	W	230.2	203.7	209.7	215.0	209.5	217.4	205.9	218.9	215.5
July	225.4	W	229.2	205.4	212.3	211.2	196.4	218.2	NA	218.3	209.2
August	234.0	W	238.2	214.1	225.2	228.5	215.3	NA	214.7	228.4	229.7
September	230.9	W	238.7	211.1	227.1	221.5	218.0	229.0	NA	226.2	222.0
October	250.7	W	255.6	232.3	241.0	236.8	233.6	239.1	238.5	233.3	230.3
November	268.8	W	270.3	240.7	252.6	248.2	248.4	247.5	247.6	242.4	238.6
December	272.6	W	276.0	249.4	252.6	249.5	244.6	250.7	242.7	239.8	239.2
Average	241.3	W	246.3	219.4	229.2	213.3	210.0	218.7	215.6	210.5	212.3
2010 January	^R 287.8	W	^R 286.1	^R 259.4	^R 268.1	^R 257.2	^R 252.6	^R 256.5	252.6	246.6	^R 250.5
February	283.1	W	283.2	256.7	271.4	253.7	245.4	251.6	251.4	242.2	246.1

^a Prices are not adjusted for inflation. See "Nominal Price" in Glossary.
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 U.S. Energy Information Administration (EIA) estimates. See Note

6, "Historical Petroleum Prices," at end of section.

Web Page: See <http://www.eia.doe.gov/emeu/mer/prices.html> for all available data beginning in 1978.

Sources: • **1978-2008:** EIA, *Petroleum Marketing Annual 2008*, Table 15.
• **2009 and 2010:** EIA, *Petroleum Marketing Monthly*, May 2010, Table 15.

Table 9.8c No. 2 Distillate Prices to Residences: Selected Western States and U.S. Average (Cents^a per Gallon, Excluding Taxes)

	Idaho	Washington	Oregon	Alaska	U.S. Average
1978 Average	43.6	48.6	45.8	53.2	49.0
1980 Average	91.6	100.8	97.3	97.8	97.4
1985 Average	97.2	101.1	97.1	108.3	105.3
1990 Average	97.4	102.9	97.0	110.1	106.3
1995 Average	83.9	96.2	89.4	83.4	86.7
1996 Average	93.3	108.0	98.9	90.9	98.9
1997 Average	95.3	113.9	103.1	97.3	98.4
1998 Average	78.4	97.8	86.1	85.2	85.2
1999 Average	76.2	106.5	93.8	96.6	87.6
2000 Average	117.0	144.5	136.8	133.7	131.1
2001 Average	103.8	133.6	121.1	137.7	125.0
2002 Average	91.9	120.4	106.0	108.7	112.9
2003 Average	118.8	148.7	130.3	124.3	135.5
2004 Average	149.5	174.9	159.4	152.4	154.8
2005 Average	212.3	238.5	214.6	206.1	205.2
2006 Average	239.1	268.1	241.1	239.5	236.5
2007 Average	259.8	290.9	250.0	251.8	259.2
2008 January	296.0	329.1	299.3	301.3	313.8
February	305.7	339.8	311.5	308.4	318.1
March	348.7	382.3	349.5	337.7	347.5
April	375.5	404.3	374.0	365.8	362.6
May	399.8	432.0	399.1	399.9	392.1
June	417.8	454.5	423.7	430.9	420.4
July	421.6	452.5	429.3	446.5	429.6
August	384.4	412.4	383.6	422.1	386.6
September	358.2	382.4	355.2	389.7	366.7
October	312.7	327.9	300.7	NA	316.9
November	245.0	284.1	240.2	262.2	277.9
December	187.8	228.4	190.2	222.6	245.0
Average	307.8	340.1	306.0	348.5	321.9
2009 January	187.9	238.9	193.9	216.0	242.2
February	176.2	225.4	182.8	NA	230.7
March	167.4	212.4	173.8	194.6	220.8
April	186.3	238.3	199.7	214.0	220.9
May	187.8	247.3	204.6	225.6	216.2
June	214.8	254.2	226.8	250.6	230.2
July	212.3	237.8	214.9	236.2	225.0
August	215.8	251.9	232.5	255.4	237.0
September	227.1	267.3	235.6	NA	234.1
October	233.3	275.0	246.9	NA	246.4
November	245.9	287.1	255.0	NA	260.7
December	235.4	283.0	247.4	NA	262.7
Average	204.8	249.0	213.8	250.3	238.5
2010 January	^R 239.2	291.8	^R 258.3	NA	^R 276.3
February	^R 236.7	^R 281.7	^R 253.9	^R 278.2	^R 272.3
March	NA	NA	NA	NA	^E 280.0

^a Prices are not adjusted for inflation. See "Nominal Price" in Glossary.

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

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 U.S. Energy Information Administration (EIA) estimates. See Note

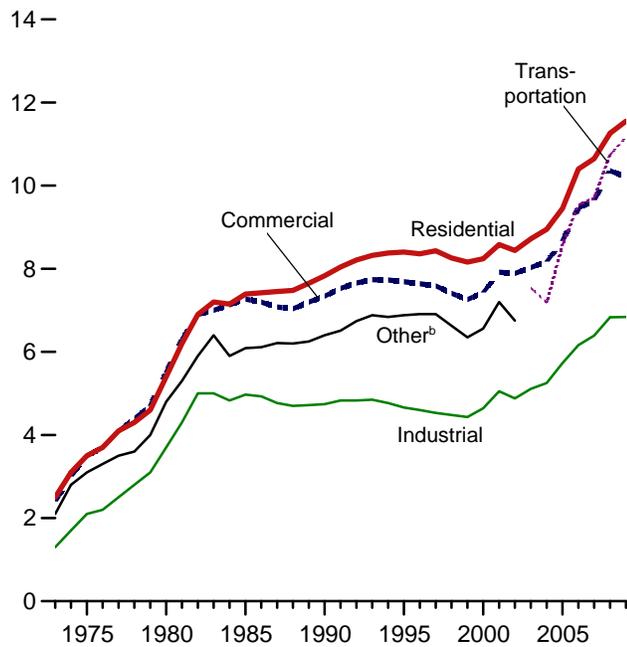
6, "Historical Petroleum Prices," at end of section.

Web Page: See <http://www.eia.doe.gov/emeu/mer/prices.html> for all available data beginning in 1978.

Sources: • **1978-2008:** EIA, *Petroleum Marketing Annual 2008*, Table 15.
• **2009 and 2010:** EIA, *Petroleum Marketing Monthly*, May 2010, Table 15.

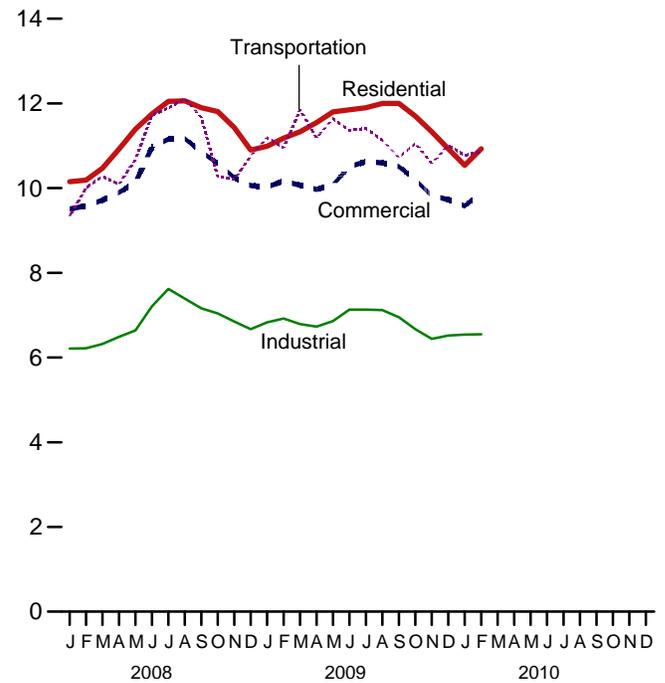
Figure 9.2 Average Retail Prices of Electricity
(Cents^a per Kilowatt-hour)

By Sector, 1973-2009



^aPrices are not adjusted for inflation. See "Nominal Price" in Glossary.
^bPublic street and highway lighting, interdepartmental sales, other sales to public authorities, agricultural and irrigation, and transportation including railroads and railways.

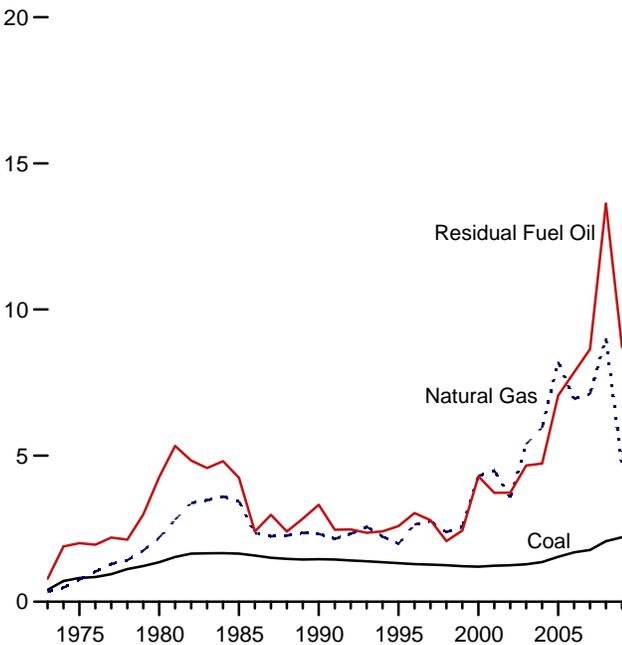
By Sector, Monthly



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

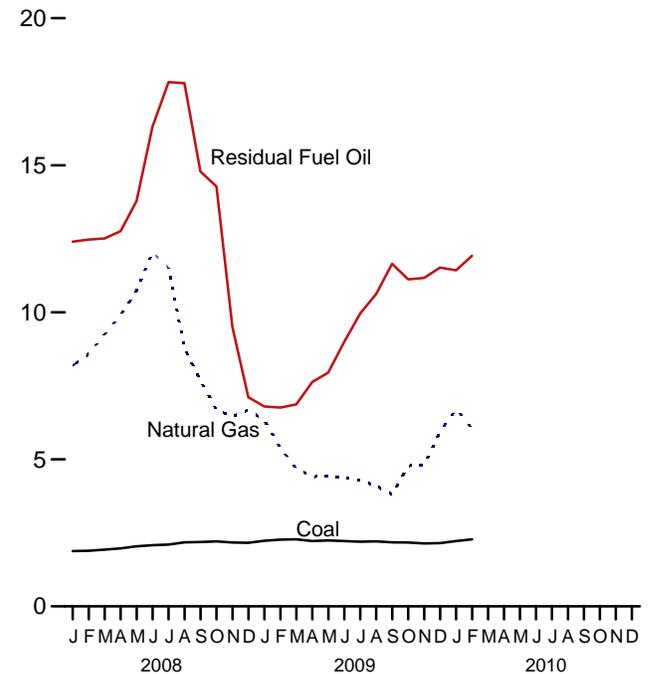
Figure 9.3 Cost of Fossil-Fuel Receipts at Electric Generating Plants
(Dollars^a per Million Btu, Including Taxes)

Costs, 1973-2009



^aPrices are not adjusted for inflation. See "Nominal Dollars" in Glossary.

Costs, Monthly



Web Page: <http://www.eia.doe.gov/emeu/mer/prices.html>.
Source: Table 9.10.

Table 9.9 Average Retail Prices of Electricity
(Cents^a per Kilowatthour, Including Taxes)

	Residential	Commercial ^b	Industrial ^c	Transportation ^d	Other ^e	Total
1973 Average	2.5	2.4	1.3	NA	2.1	2.0
1975 Average	3.5	3.5	2.1	NA	3.1	2.9
1980 Average	5.4	5.5	3.7	NA	4.8	4.7
1985 Average	7.39	7.27	4.97	NA	6.09	6.44
1990 Average	7.83	7.34	4.74	NA	6.40	6.57
1995 Average	8.40	7.69	4.66	NA	6.88	6.89
1996 Average	8.36	7.64	4.60	NA	6.91	6.86
1997 Average	8.43	7.59	4.53	NA	6.91	6.85
1998 Average	8.26	7.41	4.48	NA	6.63	6.74
1999 Average	8.16	7.26	4.43	NA	6.35	6.64
2000 Average	8.24	7.43	4.64	NA	6.56	6.81
2001 Average	8.58	7.92	5.05	NA	7.20	7.29
2002 Average	8.44	7.89	4.88	NA	6.75	7.20
2003 Average	8.72	8.03	5.11	7.54	--	7.44
2004 Average	8.95	8.17	5.25	7.18	--	7.61
2005 Average	9.45	8.67	5.73	8.57	--	8.14
2006 Average	10.40	9.46	6.16	9.54	--	8.90
2007 Average	10.65	9.65	6.39	9.70	--	9.13
2008 January	10.15	9.51	6.21	9.34	--	8.92
February	10.19	9.58	6.22	10.01	--	8.92
March	10.47	9.72	6.32	10.27	--	9.03
April	10.92	9.90	6.49	10.09	--	9.21
May	11.39	10.13	6.64	10.67	--	9.47
June	11.75	10.97	7.21	11.72	--	10.26
July	12.05	11.16	7.62	11.89	--	10.65
August	12.06	11.17	7.39	12.12	--	10.58
September	11.90	10.86	7.16	11.67	--	10.26
October	11.81	10.58	7.04	10.27	--	9.96
November	11.43	10.25	6.85	10.21	--	9.68
December	10.90	10.06	6.67	10.76	--	9.57
Average	11.26	10.36	6.83	10.74	--	9.74
2009 January	10.99	10.03	6.83	11.19	--	9.72
February	11.18	10.17	6.92	10.95	--	9.80
March	11.33	10.07	6.79	11.85	--	9.72
April	11.55	9.97	6.73	11.19	--	9.65
May	11.80	10.08	6.86	11.64	--	9.83
June	11.85	10.51	7.13	11.36	--	10.21
July	11.90	10.63	7.13	11.41	--	10.37
August	12.00	10.60	7.12	11.13	--	10.36
September	12.00	10.51	6.95	10.72	--	10.18
October	11.70	10.20	6.67	11.06	--	9.77
November	11.33	9.82	6.44	10.58	--	9.42
December	10.93	9.73	6.52	11.01	--	9.44
Average	11.55	10.21	6.84	11.17	--	9.89
2010 January	10.54	9.58	6.54	10.77	--	9.35
February	10.93	9.89	6.55	10.87	--	9.52
2-Month Average	10.72	9.73	6.55	10.82	--	9.43
2009 2-Month Average	11.08	10.10	6.87	11.07	--	9.76
2008 2-Month Average	10.17	9.55	6.21	9.66	--	8.92

^a Prices are not adjusted for inflation. See "Nominal Price" in Glossary.

^b Commercial sector. For 1973-2002, prices exclude public street and highway lighting, interdepartmental sales, and other sales to public authorities.

^c Industrial sector. For 1973-2002, prices exclude agriculture and irrigation.

^d Transportation sector, including railroads and railways.

^e Public street and highway lighting, interdepartmental sales, other sales to public authorities, agriculture and irrigation, and transportation including railroads and railways.

R=Revised. NA=Not available. --=Not applicable.

Notes: • Beginning in 2003, the category "Other" has been replaced by "Transportation," and the categories "Commercial" and "Industrial" have been redefined. • Prices are calculated by dividing revenue by sales. Revenue may not correspond to sales for a particular month because of energy service provider billing and accounting procedures. That lack of correspondence could result in uncharacteristic increases or decreases in the monthly prices. • Prices include State and local taxes, energy or demand charges, customer service charges, environmental surcharges, franchise fees, fuel adjustments, and other

miscellaneous charges applied to end-use customers during normal billing operations. Prices do not include deferred charges, credits, or other adjustments, such as fuel or revenue from purchased power, from previous reporting periods. • See Note 7, "Electricity Retail Prices," at end of section for plant coverage, and for information on preliminary and final values. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/prices.html> for all available data beginning in 1973.

Sources: • **1973-September 1977:** Federal Power Commission, Form FPC-5, "Monthly Statement of Electric Operating Revenues and Income." • **October 1977-February 1980:** Federal Energy Regulatory Commission (FERC), Form FPC-5, "Monthly Statement of Electric Operating Revenues and Income." • **March 1980-1982:** FERC, Form FERC-5, "Electric Utility Company Monthly Statement." • **1983:** U.S. Energy Information Administration (EIA), Form EIA-826, "Electric Utility Company Monthly Statement." • **1984-1992:** EIA, Form EIA-861, "Annual Electric Utility Report." • **1993 forward:** EIA, *Electric Power Monthly*, May 2010, Table 5.3.

Table 9.10 Cost of Fossil-Fuel Receipts at Electric Generating Plants
(Dollars^a per Million Btu, Including Taxes)

	Coal	Petroleum				Natural Gas ^e	All Fossil Fuels ^f
		Residual Fuel Oil ^b	Distillate Fuel Oil ^c	Petroleum Coke	Total ^d		
1973 Average	0.41	0.79	NA	NA	0.80	0.34	0.48
1975 Average .....	.81	2.01	NA	NA	2.02	.75	1.04
1980 Average	1.35	4.27	NA	NA	4.35	2.20	1.93
1985 Average	1.65	4.24	NA	NA	4.32	3.44	2.09
1990 Average	1.45	3.32	5.38	.80	3.35	2.32	1.69
1995 Average	1.32	2.59	3.99	.65	2.57	1.98	1.45
1996 Average	1.29	3.03	4.87	.78	3.03	2.64	1.52
1997 Average	1.27	2.79	4.49	.91	2.73	2.76	1.52
1998 Average	1.25	2.08	3.30	.71	2.02	2.38	1.44
1999 Average	1.22	2.44	4.03	.65	2.36	2.57	1.44
2000 Average	1.20	4.29	6.65	.58	4.18	4.30	1.74
2001 Average	1.23	3.73	6.30	.78	3.69	4.49	1.73
2002 Average ⁹	1.25	3.73	5.34	.78	3.34	3.56	1.86
2003 Average	1.28	4.66	6.82	.72	4.33	5.39	2.28
2004 Average	1.36	4.73	8.02	.83	4.29	5.96	2.48
2005 Average	1.54	7.06	11.72	1.11	6.44	8.21	3.25
2006 Average	1.69	7.85	13.28	1.33	6.23	6.94	3.02
2007 Average	1.77	8.64	14.85	1.51	7.17	7.11	3.23
2008 January	1.88	12.40	19.43	1.62	9.80	8.19	3.73
February	1.89	12.47	20.16	1.82	10.59	8.58	3.66
March	1.93	12.51	21.09	1.82	9.00	9.25	3.83
April	1.97	12.76	23.09	1.79	10.56	9.89	4.11
May	2.04	13.78	25.99	1.96	11.55	10.73	4.33
June	2.08	16.31	26.44	2.01	14.19	12.04	5.45
July	2.10	17.83	27.76	1.96	13.78	11.51	5.45
August	2.18	17.79	25.04	2.75	13.91	8.79	4.46
September	2.19	14.79	23.35	2.49	12.01	7.68	3.91
October	2.21	14.28	19.53	2.39	10.33	6.69	3.50
November	2.17	9.50	15.75	2.38	7.64	6.45	3.28
December	2.16	7.11	12.39	2.30	6.40	6.68	3.37
Average	2.07	13.62	21.46	2.11	10.87	9.02	4.11
2009 January	2.23	6.80	11.45	2.06	6.52	6.33	3.39
February	2.27	6.76	11.08	1.83	6.02	5.39	3.12
March	2.28	6.87	10.61	1.66	5.55	4.69	2.96
April	2.22	7.63	11.39	1.19	5.80	4.41	2.84
May	2.24	7.95	11.91	1.72	6.04	4.43	2.93
June	2.22	8.99	13.44	1.58	7.14	4.39	3.00
July	2.20	9.96	14.07	1.61	7.40	4.28	3.01
August	2.21	10.62	14.72	1.84	7.56	4.10	2.97
September	2.18	11.65	15.03	1.38	6.64	3.80	2.78
October	2.17	11.12	15.49	1.55	7.09	4.78	3.02
November	2.14	11.17	15.40	1.26	7.80	4.81	2.94
December	2.15	11.52	15.73	1.58	8.21	5.93	3.38
Average	2.21	8.71	13.17	1.62	6.79	4.70	3.03
2010 January	2.22	11.43	15.60	1.85	9.57	6.71	3.72
February	2.28	11.92	15.54	1.97	9.44	6.05	3.42
2-Month Average	2.25	11.59	15.58	1.90	9.52	6.40	3.58
2009 2-Month Average	2.25	6.79	11.30	1.96	6.32	5.88	3.26
2008 2-Month Average	1.88	12.79	18.38	1.70	10.05	8.37	3.70

^a Prices are not adjusted for inflation. See "Nominal Dollars" in Glossary.

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

^c For 1973-2001, electric utility data are for light oil (fuel oil nos. 1 and 2).

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

^e Natural gas, plus a small amount of supplemental gaseous fuels. For 1973-2000, data also include a small amount of blast furnace gas and other gases derived from fossil fuels.

^f Weighted average of costs shown under "Coal," "Petroleum," and "Natural

Gas."

⁹ Through 2001, data are for electric utilities only. Beginning in 2002, data also include independent power producers, and electric generating plants in the commercial and industrial sectors. See Note 8, "Costs of Fossil-Fuel Receipts at Electric Generating Plants," at end of section for plant coverage.

R=Revised. NA=Not available.

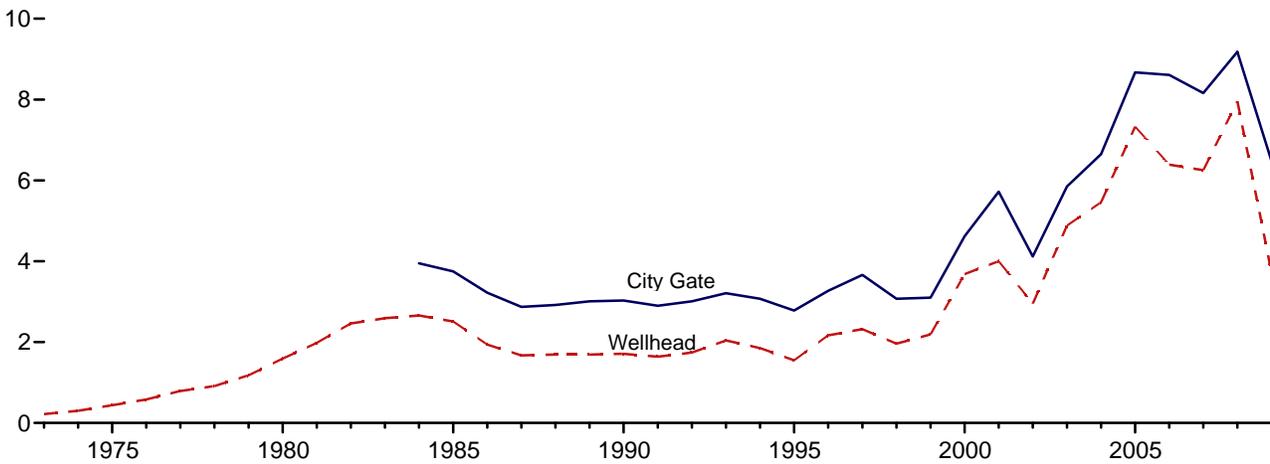
Notes: • Receipts are purchases of fuel. • Yearly costs are averages of monthly values, weighted by quantities in Btu. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/prices.html> for all available data beginning in 1973.

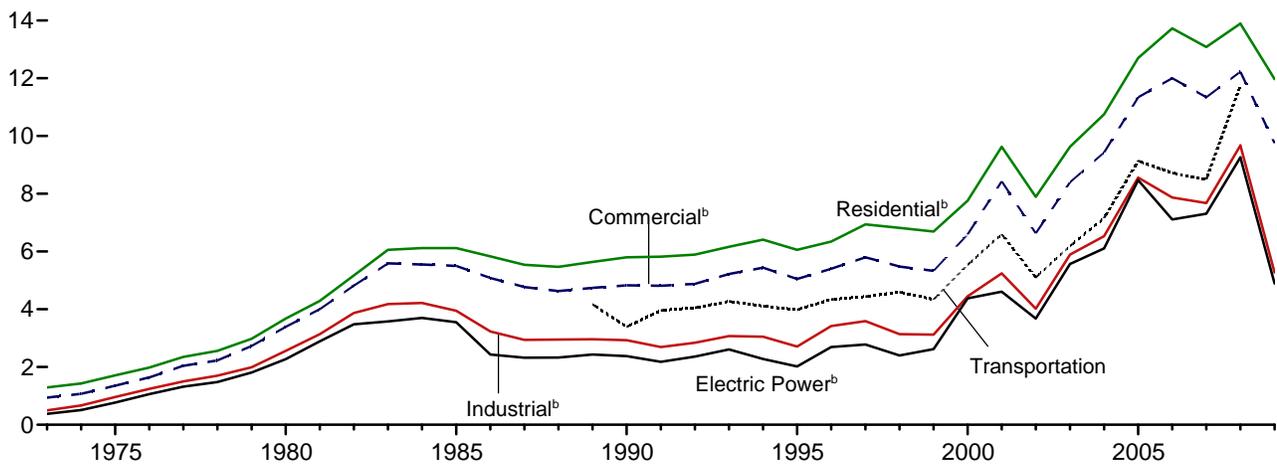
Sources: See end of section.

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

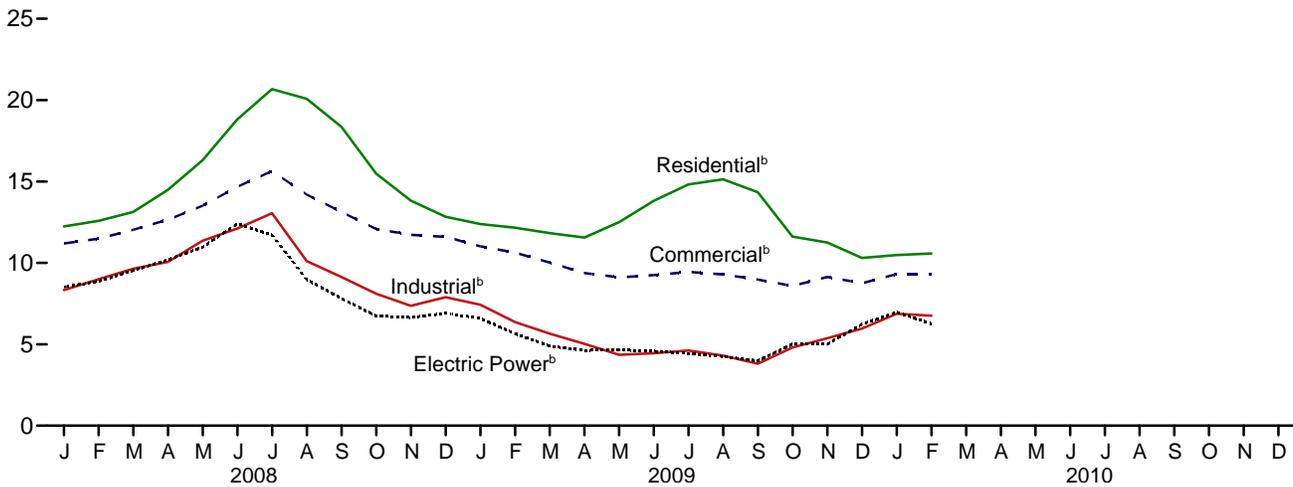
Selected Prices, 1973-2009



Consuming Sectors, 1973-2009



Consuming Sectors, Monthly



^aPrices are not adjusted for inflation. See "Nominal Dollars" in Glossary.
^bIncludes taxes.

Web Page: <http://www.eia.doe.gov/emeu/mer/prices.html>.
Source: Table 9.11.

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

	Wellhead Price	City Gate Price	Consuming Sectors ^b								
			Residential		Commercial ^c		Industrial ^d		Transportation	Electric Power ^e	
			Price ^f	Percentage of Sector ^g	Price ^f	Percentage of Sector ^g	Price ^f	Percentage of Sector ^g	Vehicle Fuel ^h Price ^f	Price ^f	Percentage of Sector ^{g,i}
1973 Average	0.22	NA	1.29	NA	0.94	NA	0.50	NA	NA	0.38	92.1
1975 Average .....	.44	NA	1.71	NA	1.35	NA	.96	NA	NA	.77	96.1
1980 Average	1.59	NA	3.68	NA	3.39	NA	2.56	NA	NA	2.27	96.9
1985 Average	2.51	3.75	6.12	NA	5.50	NA	3.95	68.8	NA	3.55	94.0
1990 Average	1.71	3.03	5.80	99.2	4.83	86.6	2.93	35.2	3.39	2.38	76.8
1995 Average	1.55	2.78	6.06	99.0	5.05	76.7	2.71	24.5	3.98	2.02	71.4
1996 Average	2.17	3.27	6.34	99.0	5.40	77.6	3.42	19.4	4.34	2.69	68.4
1997 Average	2.32	3.66	6.94	98.8	5.80	70.8	3.59	18.1	4.44	2.78	68.0
1998 Average	1.96	3.07	6.82	97.7	5.48	67.0	3.14	16.1	4.59	2.40	63.7
1999 Average	2.19	3.10	6.69	95.2	5.33	66.1	3.12	18.8	4.34	2.62	58.3
2000 Average	3.68	4.62	7.76	92.6	6.59	63.9	4.45	19.8	5.54	4.38	50.5
2001 Average	4.00	5.72	9.63	92.4	8.43	66.0	5.24	20.8	6.60	4.61	40.2
2002 Average	2.95	4.12	7.89	97.9	6.63	77.4	4.02	22.7	5.10	3.68	83.9
2003 Average	4.88	5.85	9.63	97.5	8.40	78.2	5.89	22.1	6.19	5.57	91.2
2004 Average	5.46	6.65	10.75	97.7	9.43	78.0	6.53	23.7	7.16	6.11	89.8
2005 Average	7.33	8.67	12.70	98.2	11.34	82.1	8.56	24.1	9.14	8.47	91.3
2006 Average	6.39	8.61	13.73	98.1	12.00	80.8	7.87	23.4	8.72	7.11	93.4
2007 Average	6.25	8.16	13.08	98.0	11.34	80.4	7.68	22.2	8.50	7.31	92.2
2008 January	7.16	8.37	12.24	NA	11.20	82.9	8.33	20.7	NA	8.52	100.7
February	7.71	8.91	12.58	NA	11.49	82.6	9.00	20.6	NA	8.87	101.4
March	8.44	9.49	13.13	NA	12.04	82.6	9.64	21.6	NA	9.53	101.4
April	9.04	9.84	14.49	NA	12.65	80.0	10.06	22.1	NA	10.19	101.9
May	10.15	11.05	16.31	NA	13.51	76.9	11.36	21.4	NA	10.97	101.5
June	10.79	11.85	18.82	NA	14.67	76.6	12.11	20.9	NA	12.41	100.9
July	11.32	12.48	20.68	NA	15.64	73.6	13.05	20.7	NA	11.71	100.3
August	8.34	10.20	20.08	NA	14.20	72.5	10.11	20.5	NA	8.97	100.8
September	6.72	8.99	18.36	NA	13.13	72.7	9.13	19.1	NA	7.81	101.1
October	5.50	7.80	15.49	NA	12.08	75.6	8.11	19.0	NA	6.74	101.5
November	4.75	7.93	13.82	NA	11.72	79.6	7.36	19.6	NA	6.64	101.3
December	5.52	8.16	12.84	NA	11.61	82.1	7.89	20.0	NA	6.90	101.1
Average	7.96	9.18	13.89	97.9	12.23	79.9	9.67	20.5	11.75	9.26	101.1
2009 January	E 5.15	7.98	12.39	NA	11.02	78.9	7.43	18.9	NA	6.59	101.1
February	E 4.19	7.25	12.16	NA	R 10.64	78.2	6.37	18.9	NA	5.65	101.3
March	E 3.72	6.83	11.83	NA	10.02	76.5	5.65	18.4	NA	4.89	102.1
April	E 3.43	5.68	11.56	NA	9.38	74.0	5.03	17.7	NA	4.63	101.6
May	E 3.45	R 5.48	12.50	NA	9.11	67.7	4.35	18.0	NA	4.66	101.6
June	E 3.45	5.53	13.81	NA	9.25	R 68.7	4.45	17.7	NA	4.58	101.1
July	E 3.43	5.68	14.82	NA	9.45	60.2	4.62	17.7	NA	4.43	100.9
August	E 3.14	5.59	R 15.13	NA	9.29	60.7	4.31	R 17.2	NA	4.25	100.8
September	E 2.92	R 5.35	14.34	NA	8.98	61.4	3.81	17.1	NA	3.98	100.6
October	E 3.60	5.65	11.62	NA	8.59	67.3	4.80	16.6	NA	5.01	102.6
November	E 3.64	6.33	11.25	NA	9.13	69.4	5.37	R 16.7	NA	5.00	101.9
December	E 4.44	R 6.23	10.31	NA	8.75	75.5	5.97	17.7	NA	6.23	100.2
Average	E 3.71	6.47	11.97	E 98.0	9.75	72.9	5.27	17.7	NA	4.89	101.2
2010 January	E 5.14	R 6.85	R 10.48	NA	9.31	R 76.5	R 6.88	R 17.5	NA	6.97	101.3
February	E 4.89	6.62	10.58	NA	9.31	77.0	6.76	17.1	NA	6.26	100.5
2-Month Average ...	E 5.02	6.75	10.53	NA	9.31	76.7	6.83	17.3	NA	6.64	101.0
2009 2-Month Average ...	E 4.67	7.67	12.29	NA	10.85	78.6	6.93	18.9	NA	6.14	101.2
2008 2-Month Average ...	7.44	8.62	12.40	NA	11.34	82.7	8.65	20.7	NA	8.68	101.0

^a Prices are not adjusted for inflation. See "Nominal Dollars" in Glossary.

^b See Note 9, "Natural Gas Prices," at end of section.

^c Commercial sector, including commercial combined-heat-and-power (CHP) and commercial electricity-only plants. See Note, "Classification of Power Plants Into Energy-Use Sectors," at end of Section 7.

^d Industrial sector, including industrial combined-heat-and-power (CHP) and industrial electricity-only plants. See Note, "Classification of Power Plants Into Energy-Use Sectors," at end of Section 7.

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

^f Includes taxes.

^g The percentage of the sector's consumption in Table 4.3 for which price data are available. For details on how the percentages are derived, see Table 9.11 Sources at end of section.

^h Much of the natural gas delivered for vehicle fuel represents deliveries to fueling stations that are used primarily or exclusively by fleet vehicles. Thus, the prices are often those associated with the cost of gas in the operation of fleet vehicles.

ⁱ Percentages exceed 100 percent when reported natural gas receipts are greater than reported natural gas consumption—this can occur when combined-heat-and-power plants report fuel receipts related to non-electric generating activities.

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

Notes: • Prices are for natural gas, plus a small amount of supplemental gaseous fuels. • Prices are intended to include all taxes. See Note 9, "Natural Gas Prices," at end of section. • Wellhead annual and year-to-date prices are simple averages of the monthly prices; all other annual and year-to-date prices are volume-weighted averages of the monthly prices. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/prices.html> for all available data beginning in 1973.

Sources: See end of section.

Energy Prices

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

Note 2. Crude Oil F.O.B. Costs. F.O.B. literally means “Free on Board.” It denotes a transaction whereby the seller makes the product available with an agreement on a given port at a given price; it is the responsibility of the buyer to arrange for the transportation and insurance.

Note 3. Crude Oil Landed Costs. The landed cost of imported crude oil from selected countries does not represent the total cost of all imported crude. Prior to April 1975, imported crude costs to U.S. company-owned refineries in the Caribbean were not included in the landed cost, and costs of crude oil from countries that export only small amounts to the United States were also excluded. Beginning in April 1975, however, coverage was expanded to include U.S. company-owned refineries in the Caribbean. Landed costs do not include supplemental fees.

Note 4. Crude Oil Refinery Acquisition Costs. Beginning with January 1981, refiner acquisition costs of crude oil are from data collected on U.S. Energy Information Administration (EIA) Form EIA-14, “Refiners’ Monthly Cost Report.” Those costs were previously published from data collected on Economic Regulatory Administration (ERA) Form ERA-49, “Domestic Crude Oil Entitlements Program Refiners Monthly Report.” Form ERA-49 was discontinued with the decontrol of crude oil on January 28, 1981. Crude oil purchases and costs are defined for Form EIA-14 in accordance with conventions used for Form ERA-49. The respondents for the two forms are also essentially the same. However, due to possible different interpretations of the filing requirements and a different method for handling prior period adjustments, care must be taken when comparing the data collected on the two forms.

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

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

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

Note 5. Motor Gasoline Prices. 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 are collected from a new sample of service stations in 85 urban areas selected to represent all urban consumers—about 80 percent of the total U.S. population. The service stations are selected initially, and on a replacement basis, in such a way that they represent the purchasing habits of the CPI population. Service stations in the current sample include those providing all types of service (i.e., full-, mini-, and self-serve).

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

Note 6. Historical Petroleum Prices. 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 by Paula Weir, printed in the December 1983 [3] *Petroleum Marketing Monthly*, published by EIA.

Note 7. Electricity Retail Prices. Average annual retail prices of electricity have the following plant coverage: Through 1979, annual data are for Classes A and B privately owned electric utilities only. For 1980–1982, annual data are for selected Class A utilities whose electric operating revenues were \$100 million or more during the previous year. For 1983, annual data are for a selected sample of electric utilities. Beginning in 1984, data are for a census of electric utilities. Beginning in 1996, annual data also include energy service providers selling to retail customers.

Average monthly retail prices of electricity have the following plant coverage: Through 1985, monthly data are derived from selected privately owned electric utilities and, therefore, are not national averages. Beginning in 1986, monthly data are based on a sample of publicly and privately owned electric utilities. Beginning in 1996, monthly data also include energy service providers selling to retail customers.

Preliminary monthly data are from Form EIA-826, "Monthly Electric Sales and Revenue Report With State Distributions Report," which is a monthly collection of data from approximately 450 of the largest publicly and privately owned electric utilities as well as a census of energy service providers with retail sales in deregulated States; a model is then applied to the collected data to estimate for the entire universe of U.S. electric utilities. Preliminary annual data are the sum of the monthly revenues divided by the sum of the monthly sales. When final annual data become available each year from Form EIA-861, "Annual Electric Power Industry Report," their ratios to the preliminary Form EIA-826 values are used to derive adjusted final monthly values.

Note 8. Costs of Fossil-Fuel Receipts at Electric Generating Plants. Data for 1973–1982 cover all regulated electric generating plants at which the generator nameplate capacity of all steam-electric units combined totaled 25 megawatts or greater. From 1974–1982, peaking units were included in the data and counted towards the 25-megawatt-or-greater total. Data for 1983–1990 cover all regulated electric generating plants at which the generator nameplate capacity of all steam-electric units combined totaled 50 megawatts or greater. Data for 1991–2001 cover all regulated electric generating plants at which the generator nameplate capacity of all steam-electric units and combined-cycle units together totaled 50

megawatts or greater. Data for 2002 forward cover the aforementioned regulated generating plants plus unregulated generating plants (independent power producers, as well as combined-heat-and-power generating plants and electricity-only plants in the commercial and industrial sector) whose total facility fossil-fueled nameplate generating capacity is 50 or more megawatts, regardless of unit type.

Note 9. Natural Gas Prices. 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, vehicle fuel, and electric power consumers. They do not include the price of natural gas delivered on behalf of third parties to residential, commercial, industrial, and vehicle fuel customers except for certain States in the residential and commercial sectors for 2002 forward. Volumes of natural gas delivered on behalf of third parties are included in the consumption data shown in Table 4.3. Additional information is available in the EIA *Natural Gas Monthly*, Appendix C.

Table 9.1 Sources

Domestic First Purchase Price

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

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

1978–2008: U.S. Energy Information Administration (EIA), *Petroleum Marketing Annual 2008*, Table 1.

2009 and 2010: EIA, *Petroleum Marketing Monthly*, May 2010, Table 1.

F.O.B. and Landed Cost of Imports

October 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."

1978–2008: EIA, *Petroleum Marketing Annual 2008*, Table 1.

2009 and 2010: EIA, *Petroleum Marketing Monthly*, May 2010, 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.”

1978–2008: EIA, *Petroleum Marketing Annual 2008*, Table 1.

2009 and 2010: EIA, *Petroleum Marketing Monthly*, May 2010, Table 1.

Table 9.2 Sources

October 1973–September 1977: Federal Energy Administration, Form FEA-F701-M-0, “Transfer Pricing Report.” October 1977–December 1977: U.S. Energy Information Administration (EIA), Form FEA-F701-M-0, “Transfer Pricing Report.”

1978–2008: EIA, *Petroleum Marketing Annual 2008*, Table 21.

2009 and 2010: EIA, *Petroleum Marketing Monthly*, May 2010, Table 21.

Table 9.10 Sources

1973–September 1977: Federal Power Commission, Form FPC-423, “Monthly Report of Cost and Quality of Fuels for Electric Utility Plants.”

October 1977–December 1977: Federal Energy Regulatory Commission, Form FERC-423, “Monthly Report of Cost and Quality of Fuels for Electric Utility Plants.”

1978 and 1979: U.S. Energy Information Administration (EIA), Form FERC-423, “Monthly Report of Cost and Quality of Fuels for Electric Utility Plants.”

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

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

2001–2007: EIA, *Electric Power Monthly*, October 2008, Table 4.1; Federal Energy Regulatory Commission, Form FERC-423, “Monthly Report of Cost and Quality of Fuels for Electric Utility Plants”; and EIA, Form EIA-423, “Monthly Cost and Quality of Fuels for Electric Plants Report.”

2008 forward: EIA, *Electric Power Monthly*, May 2010, Table 4.1; and Form EIA-923, “Power Plant Operations Report.”

Table 9.11 Sources

All Prices Except Vehicle Fuel and Electric Power

1973–2002: U.S. Energy Information Administration (EIA), *Natural Gas Annual (NGA)*, annual reports.

2003 forward: EIA, *Natural Gas Monthly (NGM)*, April 2010, Table 3.

Vehicle Fuel Price

EIA, NGA, annual reports.

Electric Power Sector Price

1973–1998: EIA, NGA 2000, Table 96.

1999–2002: EIA, NGM, October 2004, Table 4.

2003–2007: Federal Energy Regulatory Commission, Form FERC-423, “Monthly Report of Cost and Quality of Fuels for Electric Utility Plants,” and EIA, Form EIA-423 “Monthly Cost and Quality of Fuels for Electric Plants Report.”

2008 forward: Form EIA-923, “Power Plant Operations Report.”

Percentage of Residential Sector

1989–2008: EIA, Form EIA-176, “Annual Report of Natural and Supplemental Gas Supply and Disposition.”

2009: Estimated by EIA as the average of the three previous annual values.

Percentage of Commercial Sector

1987–2002: EIA, NGA, annual reports. Calculated as the total amount of natural gas delivered to commercial consumers minus the amount delivered for the account of others, and then divided by the total amount delivered to commercial consumers.

2003 forward: EIA, NGM, April 2010, Table 3.

Percentage of Industrial Sector

1982–2002: EIA, NGA, annual reports. Calculated as the total amount of natural gas delivered to industrial consumers minus the amount delivered for the account of others, and then divided by the total amount delivered to industrial consumers.

2003 forward: EIA, NGM, April 2010, Table 3.

Percentage of Electric Power Sector

1973–2001: Calculated by EIA as the quantity of natural gas receipts by electric utilities reported on Form FERC-423, “Monthly Report of Cost and Quantity of Fuels for Electric Utility Plants” (and predecessor forms) divided by the quantity of natural gas consumed by the electric power sector (for 1973–1988, see *Monthly Energy Review*, Table 7.3b; for 1989–2001, see *Monthly Energy Review*, Table 7.4b).

2002–2007: Calculated by EIA as the quantity of natural gas receipts by electric utilities and independent power producers reported on Form FERC-423, “Monthly Report of Cost and Quantity of Fuels for Electric Utility Plants,” and EIA-423, “Monthly Cost and Quality of Fuels for Electric Plants Report,” divided by the quantity of natural gas consumed by the electric power sector (see *Monthly Energy Review*, Table 7.4b).

2008 forward: Calculated by EIA as the quantity of natural gas receipts by electric utilities and independent power producers reported on Form EIA-923, “Power Plant Operations Report,” divided by the quantity of natural gas consumed by the electric power sector (see *Monthly Energy Review*, Table 7.4b).

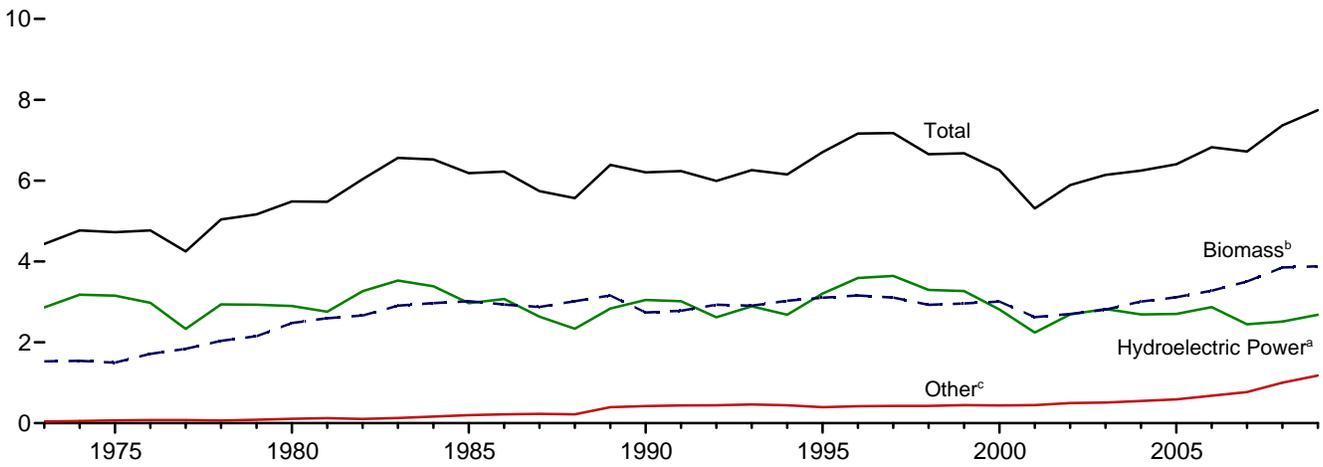
Renewable Energy



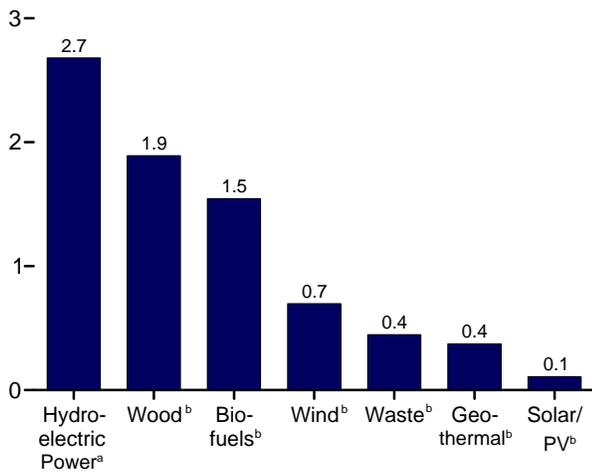
Grand Coulee Dam, Washington State. Source: U.S. Bureau of Reclamation.

Figure 10.1 Renewable Energy Consumption
(Quadrillion Btu)

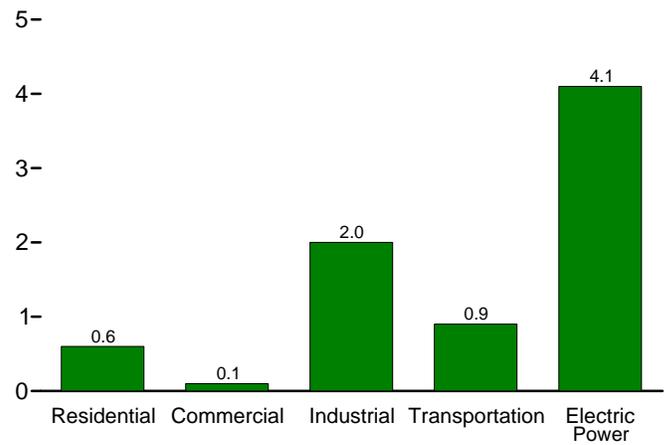
Total and Major Sources, 1973-2009



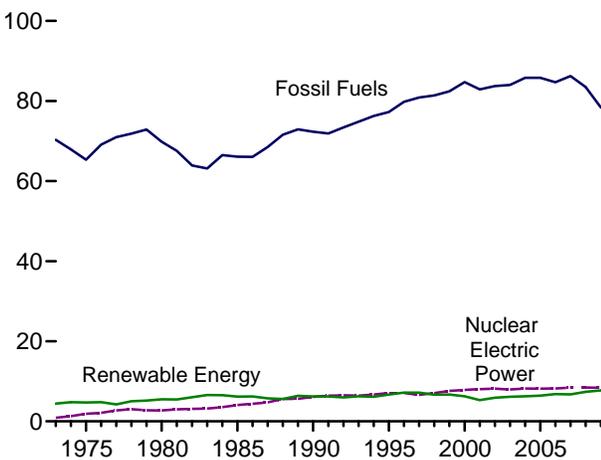
By Source, 2009



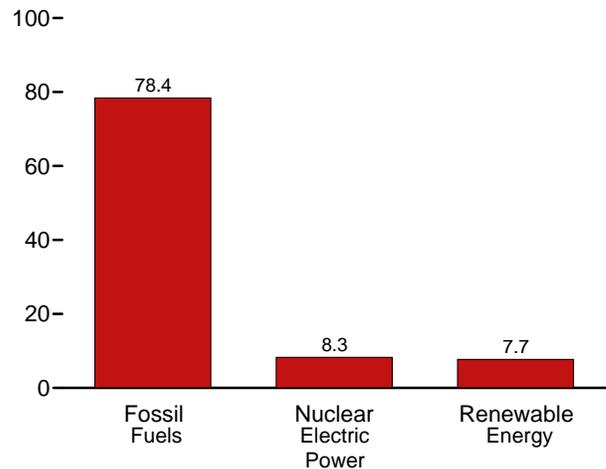
By Sector, 2009



Compared With Other Resources, 1973-2009



Compared With Other Resources, 2009



^aConventional hydroelectric power.

^bSee Table 10.1 for definition.

^cGeothermal, solar/PV, and wind.

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

Sources: Tables 1.3, 10.1, and 10.2a-c.

Table 10.1 Renewable Energy Production and Consumption by Source
(Trillion Btu)

	Production ^a			Consumption								Total Renewable Energy
	Biomass		Total Renewable Energy ^d	Hydroelectric Power ^e	Geo-thermal ^f	Solar/PV ^g	Wind ^h	Biomass				
	Bio-fuels ^b	Total ^c						Wood ⁱ	Waste ^j	Bio-fuels ^k	Total	
1973 Total	NA	1,529	4,433	2,861	43	NA	NA	1,527	2	NA	1,529	4,433
1975 Total	NA	1,499	4,723	3,155	70	NA	NA	1,497	2	NA	1,499	4,723
1980 Total	NA	2,475	5,485	2,900	110	NA	NA	2,474	2	NA	2,475	5,485
1985 Total	93	3,016	6,185	2,970	198	(s)	(s)	2,687	236	93	3,016	6,185
1990 Total	111	2,735	6,206	3,046	336	60	29	2,216	408	111	2,735	6,206
1995 Total	198	3,099	6,701	3,205	294	70	33	2,370	531	200	3,101	6,703
1996 Total	141	3,155	7,165	3,590	316	71	33	2,437	577	143	3,157	7,166
1997 Total	186	3,108	7,177	3,640	325	70	34	2,371	551	184	3,105	7,175
1998 Total	202	2,929	6,655	3,297	328	70	31	2,184	542	201	2,928	6,654
1999 Total	211	2,965	6,678	3,268	331	69	46	2,214	540	209	2,963	6,677
2000 Total	233	3,006	6,257	2,811	317	66	57	2,262	511	236	3,008	6,260
2001 Total	254	2,624	5,312	2,242	311	65	70	2,006	364	253	2,622	5,311
2002 Total	308	2,705	5,892	2,689	328	64	105	1,995	402	303	2,701	5,888
2003 Total	402	2,805	6,139	2,825	331	64	115	2,002	401	404	2,807	6,141
2004 Total	487	2,998	6,235	2,690	341	R 64	142	2,121	389	500	3,010	6,247
2005 Total	564	R 3,104	R 6,393	2,703	343	66	178	2,136	403	577	3,117	6,406
2006 Total	720	R 3,226	R 6,774	2,869	343	72	264	R 2,109	R 397	771	R 3,277	R 6,824
2007 Total	978	R 3,489	R 6,706	2,446	349	81	341	R 2,098	R 413	991	R 3,503	R 6,719
2008 January	R 101	R 331	R 615	205	29	R 8	42	R 194	R 36	R 97	R 327	R 611
February	R 97	R 300	R 557	185	27	7	38	R 168	R 35	R 96	R 300	R 557
March	R 109	R 321	R 621	214	30	8	47	R 174	R 38	R 102	R 314	R 613
April	R 107	R 314	R 622	219	30	8	51	R 170	R 36	R 107	R 313	R 622
May	R 117	R 324	R 684	268	31	8	53	R 171	R 36	R 113	R 320	R 680
June	R 111	R 313	R 690	288	30	8	51	R 167	R 35	R 110	R 312	R 689
July	R 120	R 330	R 661	252	31	R 9	39	R 173	R 37	R 120	R 330	R 661
August	R 126	R 334	R 614	209	31	R 9	32	R 171	R 36	R 125	R 332	R 613
September	R 122	R 319	R 547	159	30	8	31	R 163	R 34	R 123	R 320	R 548
October	R 126	R 330	R 568	152	31	8	47	R 168	R 36	R 127	R 332	R 570
November	R 126	R 327	R 568	154	30	R 8	49	R 165	R 37	R 124	R 325	R 566
December	R 125	R 323	R 632	206	31	R 8	65	R 161	R 37	R 128	R 326	R 636
Total	R 1,387	R 3,867	R 7,381	2,511	360	R 97	546	R 2,044	R 436	R 1,372	R 3,852	R 7,366
2009 January	119	R 315	R 650	235	32	R 9	59	R 159	38	116	R 312	R 647
February	110	R 288	R 558	176	29	R 8	56	R 146	33	101	R 280	R 549
March	R 119	R 314	R 638	214	R 33	R 9	68	R 154	42	R 119	R 315	R 638
April	117	R 301	R 663	250	R 30	R 9	72	R 148	36	120	R 304	R 665
May	126	R 315	R 706	290	R 31	R 10	60	R 152	R 37	129	R 319	R 709
June	126	R 316	R 696	287	30	R 9	53	R 152	38	128	R 318	R 697
July	137	R 340	R 653	226	31	R 10	46	R 165	38	137	R 340	R 653
August	138	R 345	R 627	189	R 31	R 10	52	R 169	R 38	137	R 345	R 626
September	133	R 326	R 579	170	R 31	R 9	43	R 157	36	132	R 324	R 577
October	141	R 340	R 636	194	31	R 9	62	R 163	36	141	R 340	R 637
November	146	R 343	R 653	206	R 32	R 9	63	R 161	R 36	142	R 339	R 648
December	150	R 354	R 702	244	R 33	R 9	62	R 166	R 38	144	R 349	R 696
Total	R 1,562	R 3,900	R 7,761	2,682	R 373	R 109	697	R 1,891	R 447	R 1,545	R 3,883	R 7,744
2010 January	151	R 353	R 674	217	R 33	R 9	63	R 164	37	145	R 346	R 668
February	140	322	610	201	29	8	50	149	33	135	317	606
2-Month Total	291	675	1,285	419	62	17	113	313	70	280	663	1,274
2009 2-Month Total	229	604	1,208	411	61	17	115	304	71	217	592	1,196
2008 2-Month Total	198	631	1,172	390	56	15	80	362	71	193	627	1,168

^a Production equals consumption for all renewable energy sources except biofuels.
^b Total biomass inputs to the production of fuel ethanol and biodiesel.
^c Wood and wood-derived fuels, biomass waste, fuel ethanol (minus denaturant), and biodiesel.
^d Hydroelectric power, geothermal, solar thermal/photovoltaic, wind, and biomass.
^e Conventional hydroelectricity net generation (converted to Btu using the fossil-fueled plants heat rate).
^f Geothermal electricity net generation (converted to Btu using the geothermal energy plants heat rate), and geothermal heat pump and direct use energy.
^g Solar thermal and photovoltaic (PV) electricity net generation (converted to Btu using the fossil-fueled plants heat rate), and solar thermal direct use energy.
^h Wind electricity net generation (converted to Btu using the fossil-fueled plants heat rate).
ⁱ Wood and wood-derived fuels.

^j Municipal solid waste from biogenic sources, landfill gas, sludge waste, agricultural byproducts, and other biomass. Through 2000, also includes non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).
^k Fuel ethanol (minus denaturant) and biodiesel consumption, plus losses and co-products from the production of fuel ethanol and biodiesel.
R=Revised. NA=Not available. (s)=Less than 0.5 trillion Btu.
Notes: • Most data for the residential, commercial, industrial, and transportation sectors are estimates. See notes and sources for Tables 10.2a and 10.2b. • See Note, "Renewable Energy Production and Consumption," 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: See <http://www.eia.doe.gov/emeu/mer/renew.html> for all available data beginning in 1973.
Sources: Tables 10.2a-c, 10.3, and 10.4.

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

	Residential Sector				Commercial Sector ^a							
	Geo-thermal ^b	Solar/PV ^c	Biomass	Total	Hydro-electric Power ^e	Geo-thermal ^b	Solar PV ⁱ	Biomass				Total
			Wood ^d					Wood ^d	Waste ^g	Fuel Ethanol ^h	Total	
1973 Total	NA	NA	354	354	NA	NA	NA	7	NA	NA	7	7
1975 Total	NA	NA	425	425	NA	NA	NA	8	NA	NA	8	8
1980 Total	NA	NA	850	850	NA	NA	NA	21	NA	NA	21	21
1985 Total	NA	NA	1,010	1,010	NA	NA	NA	24	NA	(s)	24	24
1990 Total	6	56	580	641	1	3	-	66	28	(s)	94	98
1995 Total	7	65	520	591	1	5	-	72	40	(s)	113	118
1996 Total	7	65	540	612	1	5	-	76	53	(s)	129	135
1997 Total	8	65	430	503	1	6	-	73	58	(s)	131	138
1998 Total	8	65	380	452	1	7	-	64	54	(s)	118	127
1999 Total	9	64	390	462	1	7	-	67	54	(s)	121	129
2000 Total	9	61	420	490	1	8	-	71	47	(s)	119	128
2001 Total	9	60	370	439	1	8	-	67	25	(s)	92	101
2002 Total	10	59	380	449	(s)	9	-	69	26	(s)	95	104
2003 Total	13	58	400	471	1	11	-	71	29	1	101	113
2004 Total	14	59	410	483	1	12	-	70	34	1	105	118
2005 Total	16	61	430	507	1	14	-	70	34	1	105	119
2006 Total	18	67	390	475	1	14	-	65	36	1	102	117
2007 Total	22	75	430	527	1	14	-	69	31	2	102	118
2008 January	2	7	R 38	R 48	(s)	1	(s)	6	3	(s)	9	10
February	2	7	R 36	R 45	(s)	1	(s)	6	3	(s)	R 9	10
March	2	7	R 38	R 48	(s)	1	(s)	6	3	(s)	9	10
April	2	7	R 37	R 46	(s)	1	(s)	6	3	(s)	9	10
May	2	7	R 38	R 48	(s)	1	(s)	6	3	(s)	9	11
June	2	7	R 37	R 46	(s)	1	(s)	6	3	(s)	9	10
July	2	7	R 38	R 48	(s)	1	(s)	6	3	(s)	9	11
August	2	7	R 38	R 48	(s)	1	(s)	6	3	(s)	9	11
September	2	7	R 37	R 46	(s)	1	(s)	6	3	(s)	9	10
October	2	7	R 38	R 48	(s)	1	(s)	6	3	(s)	9	10
November	2	7	R 37	R 46	(s)	1	(s)	6	3	(s)	9	10
December	2	7	R 38	R 48	(s)	1	(s)	6	3	(s)	9	R 11
Total	26	R 88	R 450	R 565	1	15	(s)	R 73	34	2	109	R 125
2009 January	R 3	R 9	R 37	R 48	(s)	1	0	6	3	(s)	9	11
February	R 3	R 8	R 33	R 43	(s)	1	(s)	6	2	(s)	8	9
March	R 3	R 9	R 37	R 48	(s)	1	(s)	6	4	(s)	10	R 12
April	R 3	R 8	R 35	R 46	(s)	1	(s)	6	3	(s)	9	10
May	R 3	R 9	R 37	R 48	(s)	1	(s)	6	3	(s)	9	R 11
June	R 3	R 8	R 35	R 46	(s)	1	(s)	6	3	(s)	9	10
July	R 3	R 9	R 37	R 48	(s)	1	(s)	6	3	(s)	9	10
August	R 3	R 9	R 37	R 48	(s)	1	(s)	6	3	(s)	9	11
September	R 3	R 8	R 35	R 46	(s)	1	(s)	6	3	(s)	9	10
October	R 3	R 9	R 37	R 48	(s)	1	(s)	6	2	(s)	9	10
November	R 3	R 8	R 35	R 46	(s)	1	(s)	6	3	(s)	9	10
December	R 3	R 9	R 37	R 48	(s)	1	0	6	3	(s)	9	11
Total	R 33	R 101	R 430	R 563	1	R 17	(s)	72	34	2	R 108	R 125
2010 January	R 3	R 9	R 37	R 48	(s)	1	0	6	3	(s)	9	11
February	3	8	33	43	(s)	1	(s)	6	2	(s)	8	10
2-Month Total	5	16	70	91	(s)	3	(s)	12	5	(s)	17	20
2009 2-Month Total	5	16	70	91	(s)	3	(s)	12	6	(s)	17	20
2008 2-Month Total	4	14	74	93	(s)	2	(s)	12	5	(s)	18	20

^a Commercial sector, including commercial combined-heat-and-power (CHP) and commercial electricity-only plants. See Note, "Classification of Power Plants Into Energy-Use Sectors," at end of Section 7.

^b Geothermal heat pump and direct use energy.

^c Solar thermal direct use energy, and photovoltaic (PV) electricity net generation (converted to Btu using the fossil-fueled plants heat rate). Includes small amounts of distributed solar thermal and PV energy used in the commercial, industrial, and electric power sectors.

^d Wood and wood-derived fuels.

^e Conventional hydroelectricity net generation (converted to Btu using the fossil-fueled plants heat rate).

^f Photovoltaic (PV) electricity net generation (converted to Btu using the fossil-fueled plants heat rate) at commercial plants with capacity of 1 megawatt or greater.

^g Municipal solid waste from biogenic sources, landfill gas, sludge waste,

agricultural byproducts, and other biomass. Through 2000, also includes non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

^h The fuel ethanol (minus denaturant) portion of motor fuels, such as E10, consumed by the commercial sector.

R=Revised. NA=Not available. - =No data reported. (s)=Less than 0.5 trillion Btu and greater than -0.5 trillion Btu.

Notes: • Data are estimates, except for commercial sector solar/PV, hydroelectric power, and waste. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/renew.html> for all available data beginning in 1973.

Sources: See end of section.

This table is modified to include a column for "Commercial Sector Solar/PV."

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

	Industrial Sector ^a								Transportation Sector		
	Hydro-electric Power ^b	Geo-thermal ^c	Biomass					Total	Biomass		
			Wood ^d	Waste ^e	Fuel Ethanol ^f	Losses and Co-products ^g	Total		Fuel Ethanol ^h	Bio-diesel ⁱ	Total
1973 Total	35	NA	1,165	NA	NA	NA	1,165	1,200	NA	NA	NA
1975 Total	32	NA	1,063	NA	NA	NA	1,063	1,096	NA	NA	NA
1980 Total	33	NA	1,600	NA	NA	NA	1,600	1,633	NA	NA	NA
1985 Total	33	NA	1,645	230	1	42	1,918	1,951	50	NA	50
1990 Total	31	2	1,442	192	1	49	1,684	1,717	60	NA	60
1995 Total	55	3	1,652	195	2	86	1,934	1,992	113	NA	113
1996 Total	61	3	1,683	224	1	61	1,969	2,033	81	NA	81
1997 Total	58	3	1,731	184	1	80	1,996	2,057	102	NA	102
1998 Total	55	3	1,603	180	1	86	1,872	1,929	113	NA	113
1999 Total	49	4	1,620	171	1	90	1,882	1,934	118	NA	118
2000 Total	42	4	1,636	145	1	99	1,881	1,928	135	NA	135
2001 Total	33	5	1,443	129	3	108	1,681	1,719	141	1	142
2002 Total	39	5	1,396	146	3	130	1,676	1,720	168	2	170
2003 Total	43	3	1,363	142	4	169	1,679	1,726	228	2	230
2004 Total	33	4	1,476	132	6	203	1,817	1,853	286	3	290
2005 Total	32	4	1,452	148	7	230	1,837	1,873	328	12	339
2006 Total	29	4	R 1,472	R 130	10	285	R 1,897	R 1,930	442	33	475
2007 Total	16	5	R 1,413	R 144	10	377	R 1,944	R 1,964	557	46	603
2008 January	2	(s)	R 134	R 12	1	39	185	R 188	54	R 4	R 57
February	2	(s)	R 112	R 13	1	37	163	165	55	R 3	R 58
March	2	(s)	R 114	R 13	1	42	170	172	57	2	R 59
April	2	(s)	R 114	R 12	1	41	168	R 171	63	R 2	R 65
May	2	(s)	R 114	R 12	1	45	172	174	65	R 2	R 67
June	1	(s)	R 109	R 11	1	42	163	165	65	R 1	R 67
July	1	(s)	R 112	R 12	1	46	R 171	172	69	R 4	R 73
August	1	(s)	R 110	R 11	1	48	R 171	172	70	R 5	R 75
September	1	(s)	R 105	R 11	1	46	163	R 165	70	R 5	R 75
October	1	(s)	R 110	R 12	1	48	172	173	73	R 5	R 78
November	1	(s)	R 107	R 12	1	48	169	170	69	R 5	R 74
December	2	(s)	R 100	R 13	1	49	163	165	75	R 4	R 78
Total	17	5	R 1,344	R 144	12	532	R 2,031	R 2,053	786	R 40	R 827
2009 January	2	(s)	R 100	14	1	46	R 161	R 163	68	(s)	68
February	1	(s)	R 93	12	1	43	R 148	R 150	57	(s)	57
March	2	(s)	R 98	R 14	1	47	R 160	R 162	68	R 3	R 71
April	2	(s)	R 95	13	1	46	R 154	R 157	69	4	73
May	2	(s)	R 97	R 13	1	49	R 160	R 163	75	3	79
June	2	(s)	R 96	13	1	49	R 159	R 161	74	4	77
July	1	(s)	R 106	14	1	53	R 175	R 176	79	3	82
August	1	(s)	R 110	R 13	1	53	R 178	R 180	77	5	82
September	1	(s)	R 102	13	1	52	R 168	R 169	73	6	79
October	1	(s)	R 108	R 13	1	54	R 177	R 178	81	4	85
November	1	(s)	R 105	R 13	1	56	R 176	R 177	80	5	84
December	2	(s)	R 107	14	1	58	R 179	R 181	79	6	85
Total	18	R 4	R 1,217	R 160	13	607	R 1,997	R 2,019	879	R 43	R 922
2010 January	2	(s)	R 105	14	1	59	R 180	R 182	83	1	84
February	2	(s)	96	12	1	55	164	166	76	4	79
2-Month Total	E 3	1	201	26	2	114	343	347	159	5	163
2009 2-Month Total	3	1	193	26	2	89	310	314	125	(s)	125
2008 2-Month Total	3	1	246	25	2	76	348	352	109	7	116

^a Industrial sector, including industrial combined-heat-and-power (CHP) and industrial electricity-only plants. See Note, "Classification of Power Plants Into Energy-Use Sectors," at end of Section 7.

^b Conventional hydroelectricity net generation (converted to Btu using the fossil-fueled plants heat rate).

^c Geothermal heat pump and direct use energy.

^d Wood and wood-derived fuels.

^e Municipal solid waste from biogenic sources, landfill gas, sludge waste, agricultural byproducts, and other biomass. Through 2000, also includes non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

^f The fuel ethanol (minus denaturant) portion of motor fuels, such as E10, consumed by the industrial sector.

^g Losses and co-products from the production of fuel ethanol and biodiesel. Does not include natural gas, electricity, and other non-biomass energy used in the

production of fuel ethanol and biodiesel—these are included in the industrial sector consumption statistics for the appropriate energy source.

^h The fuel ethanol (minus denaturant) portion of motor fuels, such as E10 and E85, consumed by the transportation sector.

ⁱ "Biodiesel" is any liquid biofuel suitable as a diesel fuel substitute, additive, or extender. See "Biodiesel" in Glossary.

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

Notes: • Data are estimates, except for industrial sector hydroelectric power in 1973-1978 and 1989 forward. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/renew.html> for all available data beginning in 1973.

Sources: See end of section.

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

	Hydro-electric Power ^a	Geo-thermal ^b	Solar/PV ^c	Wind ^d	Biomass			Total
					Wood ^e	Waste ^f	Total	
1973 Total	2,827	43	NA	NA	1	2	3	2,873
1975 Total	3,122	70	NA	NA	(s)	2	2	3,194
1980 Total	2,867	110	NA	NA	3	2	4	2,982
1985 Total	2,937	198	(s)	(s)	8	7	14	3,150
1990 Total ^g	3,014	326	4	29	129	188	317	3,689
1995 Total	3,149	280	5	33	125	296	422	3,889
1996 Total	3,528	300	5	33	138	300	438	4,305
1997 Total	3,581	309	5	34	137	309	446	4,375
1998 Total	3,241	311	5	31	137	308	444	4,032
1999 Total	3,218	312	5	46	138	315	453	4,034
2000 Total	2,768	296	5	57	134	318	453	3,579
2001 Total	2,209	289	6	70	126	211	337	2,910
2002 Total	2,650	305	6	105	150	230	380	3,445
2003 Total	2,781	303	5	115	167	230	397	3,601
2004 Total	2,656	311	6	142	165	223	388	3,503
2005 Total	2,670	309	6	178	185	221	406	3,568
2006 Total	2,839	306	5	264	182	231	412	3,827
2007 Total	2,430	308	6	341	186	237	423	3,508
2008 January	203	26	(s)	42	16	21	37	308
February	184	23	(s)	38	15	20	35	279
March	212	26	1	47	15	23	38	324
April	217	26	1	51	13	21	34	330
May	267	27	1	53	13	21	34	381
June	286	27	1	51	14	22	36	401
July	251	27	1	39	16	23	39	357
August	208	27	1	32	16	22	38	307
September	158	26	1	31	15	21	36	252
October	151	27	1	47	14	21	35	261
November	153	26	(s)	49	15	21	36	265
December	204	27	(s)	65	16	22	38	334
Total	2,494	314	9	546	177	258	435	3,798
2009 January	233	28	(s)	59	16	20	36	356
February	175	25	(s)	56	14	19	33	289
March	212	28	1	68	13	24	37	346
April	249	25	1	72	12	21	33	379
May	288	26	1	60	13	21	34	409
June	285	26	1	53	15	22	37	402
July	225	27	1	46	15	22	37	336
August	188	27	1	52	16	22	38	305
September	169	26	1	43	13	20	34	273
October	192	27	1	62	13	20	33	315
November	205	27	(s)	63	14	20	35	330
December	242	28	(s)	62	17	22	39	371
Total	2,663	320	8	697	173	253	426	4,113
2010 January	216	28	(s)	63	17	20	37	344
February	200	25	(s)	50	15	18	33	308
2-Month Total	416	53	(s)	113	31	39	70	652
2009 2-Month Total	408	53	(s)	115	30	39	70	646
2008 2-Month Total	387	48	1	80	31	41	72	587

^a Conventional hydroelectricity net generation (converted to Btu using the fossil-fueled plants heat rate).

^b Geothermal electricity net generation (converted to Btu using the geothermal energy plants heat rate).

^c Solar thermal and photovoltaic (PV) electricity net generation (converted to Btu using the plants heat rate).

^d Wind electricity net generation (converted to Btu using the fossil-fueled plants heat rate).

^e Wood and wood-derived fuels.

^f Municipal solid waste from biogenic sources, landfill gas, sludge waste, agricultural byproducts, and other biomass. Through 2000, also includes non-renewable waste (municipal solid waste from non-biogenic sources, and

tire-derived fuels).

^g Through 1988, data are for electric utilities only. Beginning in 1989, data are for electric utilities and independent power producers.

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

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

Web Page: See <http://www.eia.doe.gov/emeu/mer/renew.html> for all available data beginning in 1973.

Sources: • Biomass: Table 7.4b. • All Other Data: Tables 7.2b and A6.

Table 10.3 Fuel Ethanol Overview

	Feed-stock ^a	Losses and Co-products ^b	Denaturant ^c	Production ^d			Trade ^d	Stocks ^{d,f}	Stock Change ^{d,g}	Consumption ^d			Consumption Minus Denaturant ^h		
							Net Imports ^e						TBtu	TBtu	TBtu
							Mbbl								
	TBtu	TBtu	Mbbl	Mbbl	MMgal	TBtu	Mbbl	Mbbl	Mbbl	MMgal	TBtu	TBtu			
1981 Total	13	6	40	1,978	83	7	NA	NA	NA	1,978	83	7	7		
1985 Total	93	42	294	14,693	617	52	NA	NA	NA	14,693	617	52	51		
1990 Total	111	49	356	17,802	748	63	NA	NA	NA	17,802	748	63	62		
1995 Total	198	86	647	32,325	1,358	115	387	2,186	-207	32,919	1,383	117	114		
1996 Total	141	61	464	23,178	973	83	313	2,065	-121	23,612	992	84	82		
1997 Total	186	80	613	30,674	1,288	109	85	2,925	860	29,899	1,256	107	104		
1998 Total	202	86	669	33,453	1,405	119	66	3,406	481	33,038	1,388	118	115		
1999 Total	211	90	698	34,881	1,465	124	87	4,024	618	34,350	1,443	122	119		
2000 Total	233	99	773	38,627	1,622	138	116	3,400	-624	39,367	1,653	140	137		
2001 Total	253	108	841	42,028	1,765	150	315	4,298	898	41,445	1,741	148	144		
2002 Total	307	130	1,019	50,956	2,140	182	306	6,200	1,902	49,360	2,073	176	171		
2003 Total	400	169	1,335	66,772	2,804	238	292	5,978	-222	67,286	2,826	240	233		
2004 Total	484	203	1,621	81,058	3,404	289	3,542	6,002	24	84,576	3,552	301	293		
2005 Total	552	230	1,859	92,961	3,904	331	3,234	5,563	-439	96,634	4,059	344	335		
2006 Total	688	285	2,326	116,294	4,884	414	17,408	8,760	3,197	130,505	5,481	465	453		
2007 Total	914	376	3,105	155,263	6,521	553	10,457	10,535	1,775	163,945	6,886	584	569		
2008 January	94	38	321	16,058	674	57	510	11,383	848	15,720	660	56	55		
February	91	37	311	15,527	652	55	505	11,173	-210	16,242	682	58	56		
March	103	42	351	17,527	736	62	368	12,288	1,115	16,780	705	60	58		
April	101	41	343	17,152	720	61	1,491	12,572	284	18,359	771	65	64		
May	110	45	375	18,756	788	67	962	13,297	725	18,993	798	68	66		
June	103	42	353	17,651	741	63	1,571	13,323	26	19,196	806	68	67		
July	112	46	381	19,040	800	68	1,459	13,448	125	20,374	856	73	71		
August	118	48	401	20,059	842	71	1,931	14,771	1,323	20,667	868	74	72		
September	113	46	387	19,338	812	69	2,466	16,110	1,339	20,465	860	73	71		
October	118	48	401	20,048	842	71	606	15,214	-896	21,550	905	77	75		
November	118	48	403	20,139	846	72	278	15,286	72	20,345	854	72	71		
December	119	49	407	20,342	854	72	463	14,226	-1,060	21,865	918	78	76		
Total	1,300	531	4,433	221,637	9,309	790	12,610	14,226	3,691	230,556	9,683	821	800		
2009 January	114	46	362	19,545	821	70	371	14,186	-133	19,949	838	71	69		
February	106	43	379	18,120	761	65	51	15,688	1,502	16,669	700	59	58		
March	116	47	412	19,837	833	71	78	15,652	-36	19,951	838	71	69		
April	112	45	403	19,220	807	68	167	14,845	-807	20,194	848	72	70		
May	121	49	458	20,752	872	74	504	13,999	-846	22,102	928	79	76		
June	121	49	454	20,822	875	74	702	13,903	-96	21,620	908	77	75		
July	131	53	503	22,577	948	80	1,010	14,294	391	23,196	974	83	80		
August	131	53	489	22,552	947	80	921	15,001	707	22,766	956	81	79		
September	127	51	469	21,752	914	78	307	15,688	687	21,372	898	76	74		
October	134	54	503	22,956	964	82	206	15,080	-608	23,770	998	85	82		
November	137	56	513	23,592	991	84	285	15,518	438	23,439	984	84	81		
December	142	58	562	24,424	1,026	87	12	16,711	1,193	23,243	976	83	80		
Total	1,493	606	5,507	256,149	10,758	913	4,614	16,711	2,492	258,271	10,847	920	894		
2010 January	147	59	533	25,366	1,065	90	34	17,800	1,089	24,311	1,021	87	84		
February	135	55	487	23,328	980	83	27	18,897	1,097	22,258	935	79	77		
2-Month Total ...	283	114	1,020	48,694	2,045	173	61	18,897	2,186	46,569	1,956	166	161		
2009 2-Month Total ...	220	89	741	37,665	1,582	134	422	15,688	1,469	36,618	1,538	130	127		
2008 2-Month Total ...	185	76	632	31,585	1,327	113	1,015	11,173	638	31,962	1,342	114	111		

^a Total corn and other biomass inputs to the production of undenatured ethanol used for fuel ethanol.

^b Losses and co-products from the production of fuel ethanol. Does not include natural gas, electricity, and other non-biomass energy used in the production of fuel ethanol—these are included in the industrial sector consumption statistics for the appropriate energy source.

^c The amount of denaturant in fuel ethanol produced.

^d Includes denaturant.

^e Fuel ethanol imports only. Data for fuel ethanol exports are not available.

^f Stocks are at end of period.

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

^h Consumption of fuel ethanol minus denaturant. Data for fuel ethanol minus denaturant are used to develop data for "Renewable Energy/Biomass" in Tables 10.1-10.2b, as well as in Sections 1 and 2.

ⁱ Derived from the preliminary December 2008 stocks value, not the final

December 2008 value that is shown under "Stocks."

NA=Not available.

Notes: • Mbbl = thousand barrels. MMgal = million U.S. gallons. TBtu = trillion Btu. • Fuel ethanol data in thousand barrels are converted to million gallons by multiplying by 0.042, and are converted to Btu by multiplying by the approximate heat content of fuel ethanol—see Table A3. • Through 1980, data are not available. For 1981-1992, data are estimates. For 1993-2008, only data for feedstock, losses and co-products, and denaturant are estimates. Beginning in 2009, only data for feedstock, and losses and co-products, are estimates. • See "Denaturant," "Ethanol," "Fuel Ethanol," and "Fuel Ethanol Minus Denaturant" in Glossary. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/renew.html> for all available data beginning in 1981.

Sources: See end of section.

Table 10.4 Biodiesel Overview

	Feedstock ^a	Losses and Co-products ^b	Production			Trade			Stocks ^d	Stock Change ^e	Balancing Item ^f	Consumption		
						Imports	Exports	Net Imports ^c						
			TBtu	TBtu	Mbbl	MMgal	TBtu	Mbbl				Mbbl	Mbbl	Mbbl
2001 Total	1	(s)	204	9	1	78	39	39	NA	NA	NA	243	10	1
2002 Total	1	(s)	250	10	1	191	56	135	NA	NA	NA	385	16	2
2003 Total	2	(s)	338	14	2	94	110	-16	NA	NA	NA	322	14	2
2004 Total	4	(s)	666	28	4	97	124	-26	NA	NA	NA	640	27	3
2005 Total	12	(s)	2,162	91	12	207	206	1	NA	NA	NA	2,163	91	12
2006 Total	32	(s)	5,963	250	32	1,069	828	242	NA	NA	NA	6,204	261	33
2007 Total	63	1	11,662	490	62	3,342	6,477	-3,135	NA	NA	NA	8,528	358	46
2008 January	7	(s)	R 1,197	R 50	R 6	598	1,100	-501	NA	NA	NA	R 695	R 29	R 4
February	R 6	(s)	R 1,074	R 45	R 6	838	1,384	-546	NA	NA	NA	R 528	R 22	R 3
March	R 6	(s)	R 1,188	R 50	R 6	274	1,172	-898	NA	NA	NA	R 290	R 12	2
April	R 7	(s)	R 1,268	R 53	R 7	688	1,592	-904	NA	NA	NA	R 364	R 15	R 2
May	R 7	(s)	R 1,292	R 54	R 7	513	1,364	-850	NA	NA	NA	R 442	R 19	R 2
June	R 8	(s)	R 1,445	R 61	R 8	512	1,758	-1,246	NA	NA	NA	R 198	R 8	R 1
July	R 9	(s)	R 1,604	R 67	R 9	526	1,421	-894	NA	NA	NA	R 710	R 30	R 4
August	R 9	(s)	R 1,623	R 68	R 9	907	1,606	-699	NA	NA	NA	R 923	R 39	R 5
September	R 8	(s)	R 1,501	R 63	R 8	908	1,452	-544	NA	NA	NA	R 957	R 40	R 5
October	R 8	(s)	R 1,465	R 62	R 8	721	1,333	-612	NA	NA	NA	R 853	R 36	R 5
November	R 8	(s)	R 1,438	R 60	R 8	612	1,181	-569	NA	NA	NA	R 869	R 36	R 5
December	R 6	(s)	R 1,052	R 44	6	404	766	-362	NA	NA	NA	R 689	R 29	R 4
Total	R 88	1	R 16,145	R 678	R 87	7,502	16,128	-8,626	NA	NA	NA	R 7,519	R 316	R 40
2009 January	R 5	(s)	R 920	R 39	R 5	261	1,150	-889	57	57	R 55	29	1	(s)
February	R 4	(s)	R 735	R 31	R 4	158	1,166	-1,009	119	62	R 364	29	1	(s)
March	R 3	(s)	R 563	R 24	R 3	383	203	180	357	238	0	R 505	R 21	R 3
April	5	(s)	912	38	5	52	154	-102	389	32	0	778	33	4
May	5	(s)	929	39	5	117	417	-300	375	-14	0	643	27	3
June	5	(s)	904	38	5	138	366	-228	367	-8	0	684	29	4
July	6	(s)	1,077	45	6	58	581	-523	309	-58	0	611	26	3
August	7	(s)	1,214	51	7	126	397	-271	317	8	0	935	39	5
September	6	(s)	1,123	47	6	123	224	-101	222	-95	0	1,117	47	6
October	7	(s)	1,292	54	7	159	424	-265	439	217	0	811	34	4
November	8	(s)	1,550	65	8	105	819	-714	430	-9	0	844	35	5
December	8	(s)	1,439	60	8	165	431	-265	506	76	0	1,097	46	6
Total	R 69	1	R 12,657	R 532	R 68	1,844	6,332	-4,489	506	506	R 419	R 8,082	R 339	R 43
2010 January	4	(s)	764	32	4	41	296	-256	834	328	0	181	8	1
February	4	(s)	797	33	4	31	139	-108	844	10	0	679	29	4
2-Month Total	8	(s)	1,561	66	8	72	435	-363	844	338	0	860	36	5
2009 2-Month Total	9	(s)	1,655	70	9	418	2,316	-1,898	119	119	419	58	2	(s)
2008 2-Month Total	12	(s)	2,271	95	12	1,437	2,484	-1,047	NA	NA	NA	1,224	51	7

^a Total vegetable oil and other biomass inputs to the production of biodiesel.
^b Losses and co-products from the production of biodiesel. Does not include natural gas, electricity, and other non-biomass energy used in the production of biodiesel—these are included in the industrial sector consumption statistics for the appropriate energy source.
^c Net imports equal imports minus exports.
^d Stocks are at end of period.
^e A negative value indicates a decrease in stocks and a positive value indicates an increase.
^f Beginning in 2009, because of incomplete data coverage and different data sources, "Balancing Item" is used to balance biodiesel supply and disposition.
 R=Revised. NA=Not available. (s)=Less than 0.5 trillion Btu.
 Notes: • Mbbl = thousand barrels. MMgal = million U.S. gallons. TBtu = trillion Btu. • Biodiesel data in thousand barrels are converted to million gallons by multiplying by 0.042, and are converted to Btu by multiplying by 5.359 million Btu per barrel (the approximate heat content of biodiesel—see Table A3). • Through 2000, data are not available. Beginning in 2001, data not from U.S. Energy Information Administration (EIA) surveys are estimates. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.
 Web Page: See <http://www.eia.doe.gov/emeu/mer/renew.html> for all available data beginning in 2001.
 Sources: • **Feedstock:** Calculated as biodiesel production in thousand barrels multiplied by 5.433 million Btu per barrel (the biodiesel feedstock factor—see Table A3). • **Losses and Co-products:** Calculated as biodiesel feedstock minus biodiesel production. • **Production: 2001-2005**—U.S. Department of Agriculture, Commodity Credit Corporation, Bioenergy Program records. Annual data are derived from quarterly data. Monthly data are estimated by dividing the annual data

by the number of days in the year and then multiplying by the number of days in the month. **2006**—U.S. Department of Commerce, Bureau of the Census, "M311K - Fats and Oils: Production, Consumption, and Stocks," data for soybean oil consumed in methyl esters (biodiesel). In addition, the EIA, Office of Integrated Analysis and Forecasting, estimates that 14.4 million gallons of yellow grease were consumed in methyl esters (biodiesel). **2007 and April 2009 forward**—U.S. Department of Commerce, Bureau of the Census, "M311K - Fats and Oils: Production, Consumption, and Stocks," data for all fats and oils consumed in methyl esters (biodiesel). **January 2008-March 2009**—EIA, *Monthly Biodiesel Production Report*, March 2009 (release date April 2010), Table 10. Monthly data for 2008 are estimated based on U.S. Department of Commerce, Bureau of Census, M311K data, multiplied by the EIA 2008 annual value's share of the M311K 2008 annual value. • **Trade:** U.S. Department of Agriculture, imports data for Harmonized Tariff Schedule code 3824.90.40.20 (Fatty Esters Animal/Vegetable/Mixture), and exports data for Schedule B code 3824.90.40.00 (Fatty Substances Animal/Vegetable/Mixture). Although these categories include products other than biodiesel (such as those destined for soaps, cosmetics, and other items), biodiesel is the largest component. In the absence of other reliable data for biodiesel trade, EIA sees these data as good estimates. • **Stocks and Stock Change:** EIA, *Petroleum Supply Monthly (PSM)*, monthly reports, Table 1, data for renewable fuels except fuel ethanol. • **Balancing Item:** Calculated as biodiesel consumption and biodiesel stock change minus biodiesel production and biodiesel net imports. • **Consumption: 2001-2008**—Calculated as biodiesel production plus biodiesel net imports. **January and February 2009**—EIA, PSM, monthly reports, Table 1, data for refinery and blender net inputs of renewable fuels except fuel ethanol. **March 2009 forward**—Calculated as biodiesel production plus biodiesel net imports minus biodiesel stock change.

Production data for January 2008 through March 2009 are revised to incorporate data from EIA's *Monthly Biodiesel Production Report*.

Renewable Energy

Note. Renewable Energy Production and Consumption. In Table 10.1, renewable energy consumption consists of: conventional hydroelectricity net generation (converted to Btu using the fossil-fueled plants heat rate); geothermal electricity net generation (converted to Btu using the geothermal plants heat rate), and geothermal heat pump and geothermal direct use energy; solar thermal and photovoltaic electricity net generation (converted to Btu using the fossil-fueled plants heat rate), and solar thermal direct use energy; wind electricity net generation (converted to Btu using the fossil-fueled plants heat rate); wood and wood-derived fuels consumption; biomass waste (municipal solid waste from biogenic sources, landfill gas, sludge waste, agricultural byproducts, and other biomass) consumption; fuel ethanol (minus denaturant) and biodiesel consumption; and losses and co-products from the production of fuel ethanol and biodiesel. Production is assumed to equal consumption for all renewable energy sources except biofuels (biofuels production comprises biomass inputs to the production of fuel ethanol and biodiesel).

Table 10.2a Sources

Residential Sector, Geothermal

Oregon Institute of Technology, Geo-Heat Center. Monthly estimates are created by dividing the annual estimates by the number of days in the year and then multiplying by the number of days in the month. (The annual estimate for the current year is set equal to that of the previous year.)

Residential Sector, Solar/PV

U.S. Energy Information Administration (EIA), Office of Coal, Nuclear, Electric and Alternate Fuels (CNEAF), estimates based on Form EIA-63A, "Annual Solar Thermal Collector Manufacturers Survey," and Form EIA-63B, "Annual Photovoltaic Module/Cell Manufacturers Survey." Monthly estimates are created by dividing the annual estimates by the number of days in the year and then multiplying by the number of days in the month. (The annual estimate for the current year is set equal to that of the previous year.)

Residential Sector, Wood

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

1980 forward: EIA, Form EIA-457, "Residential Energy Consumption Survey"; and EIA, CNEAF, estimates based on Form EIA-457 and regional heating degree-day data. Monthly estimates are created by dividing the annual estimates by the number of days in the year and then multiplying by the number of days in the month. (The annual estimate for the current year is set equal to that of the previous year.)

Commercial Sector, Hydroelectric Power

EIA, *Monthly Energy Review (MER)*, Tables 7.2a–7.2c and

A6. Calculated as total conventional hydroelectric power minus conventional hydroelectric power in the electric power and industrial sectors, multiplied by the fossil-fueled plants heat rate.

Commercial Sector, Geothermal

Oregon Institute of Technology, Geo-Heat Center. Monthly estimates are created by dividing the annual estimates by the number of days in the year and then multiplying by the number of days in the month. (The annual estimate for the current year is set equal to that of the previous year.)

Commercial Sector, Solar/PV

EIA, MER, Tables 7.2a, 7.2b, and A6. Calculated as total solar/PV electricity net generation minus electric power sector solar/PV electricity net generation, multiplied by the fossil-fueled plants heat rate.

Commercial Sector, Wood

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.

1985–1988: Values interpolated.

1989 forward: EIA, MER, Tables 7.4a–c; and EIA, CNEAF, estimates based on Form EIA-871, "Commercial Buildings Energy Consumption Survey." Data for wood consumption at commercial combined-heat-and-power (CHP) plants are calculated as total wood consumption at electricity-only and CHP plants (MER, Table 7.4a) minus wood consumption in the electric power sector (MER, Table 7.4b) and at industrial CHP plants (MER, Table 7.4c). Annual estimates for wood consumption at other commercial plants are based on Form EIA-871 (the annual estimate for the current year is set equal to that of the previous year); monthly estimates are created by dividing the annual estimates by the number of days in the year and then multiplying by the number of days in the month.

Commercial Sector, Biomass Waste

EIA, MER, Table 7.4c.

Commercial Sector, Fuel Ethanol (Minus Denaturant)

EIA, MER, Tables 3.5, 3.7a, and 10.3. Calculated as commercial sector motor gasoline consumption (Table 3.7a) divided by total motor gasoline product supplied (Table 3.5), and then multiplied by fuel ethanol (minus denaturant) consumption (Table 10.3).

Table 10.2b Sources

Industrial Sector, Hydroelectric Power

U.S. Energy Information Administration (EIA), MER Tables 7.2c and A6.

Industrial Sector, Geothermal

Oregon Institute of Technology, Geo-Heat Center. Monthly estimates are created by dividing the annual estimates by the number of days in the year and then multiplying by the number of days in the month. (The annual estimate for the current year is set equal to that of the previous year.)

Industrial Sector, Wood

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 forward: EIA, MER, Table 7.4c; and EIA, Office of Coal, Nuclear, Electric and Alternate Fuels (CNEAF), estimates based on Form EIA-846, “Manufacturing Energy Consumption Survey.” Data for wood consumption at industrial combined-heat-and-power (CHP) plants are from MER, Table 7.4c. Annual estimates for wood consumption at other industrial plants are based on Form-EIA-846 (the annual estimate for the current year is set equal to that of the previous year); monthly estimates are created by dividing the annual estimates by the number of days in the year and then multiplying by the number of days in the month.

Industrial Sector, Biomass Waste

1981: EIA, *Estimates of U.S. Biofuels Consumption 1990*, Table 8; and EIA, MER, Table 10.2c. Estimates are calculated as total waste consumption minus electric power sector waste consumption.

1982 and 1983: EIA, CNEAF, estimates for total waste consumption; and EIA, MER, Table 10.2c. Estimates are calculated as total waste consumption minus electric power sector waste consumption.

1984: EIA, *Estimates of U.S. Biofuels Consumption 1990*, Table 8; and EIA, MER, Table 10.2c. Estimates are calculated as total waste consumption minus electric power sector waste consumption.

1985 and 1986: Values interpolated.

1987: EIA, *Estimates of U.S. Biofuels Consumption 1990*, Table 8; and EIA, MER, Table 10.2c. Estimates are calculated as total waste consumption minus electric power sector waste consumption.

1988: Value interpolated.

1989 forward: EIA, MER, Table 7.4c; and EIA, CNEAF, estimates based on information presented in Government Advisory Associates, *Resource Recovery Yearbook* and *Methane Recovery Yearbook*, and information provided by the U.S. Environmental Protection Agency, Landfill Methane Outreach Program. Data for waste consumption at industrial CHP plants are from MER, Table 7.4c. Annual estimates for waste consumption at other industrial plants are based on the non-EIA sources listed above (the annual estimate for the current year is set equal to that of the previous year); monthly estimates are created by dividing the annual estimates by the number of days in the year and then multiplying by the number of days in the month.

Industrial Sector, Fuel Ethanol (Minus Denaturant)

EIA, MER, Tables 3.5, 3.7b, and 10.3. Calculated as industrial sector motor gasoline consumption (Table 3.7b) divided by total motor gasoline product supplied (Table 3.5), and then multiplied by fuel ethanol (minus denaturant) consumption (Table 10.3).

Industrial Sector, Losses and Co-products

EIA, MER, Tables 10.3 and 10.4.

Transportation Sector, Fuel Ethanol (Minus Denaturant)

EIA, MER, Tables 3.5, 3.7c, and 10.3. Calculated as transportation sector motor gasoline consumption (Table 3.7c) divided by total motor gasoline product supplied (Table 3.5), and then multiplied by fuel ethanol (minus denaturant) consumption (Table 10.3).

Transportation Sector, Biodiesel

EIA, MER, Table 10.4. Transportation sector biodiesel consumption is assumed to equal total biodiesel consumption.

Table 10.3 Sources

Feedstock

Calculated as fuel ethanol production (in thousand barrels) minus denaturant, and then multiplied by the fuel ethanol feedstock factor—see Table A3.

Losses and Co-products

Calculated as fuel ethanol feedstock plus denaturant minus fuel ethanol production.

Denaturant

1981–2008: Data in thousand barrels for petroleum denaturant in fuel ethanol produced are estimated as 2 percent of fuel ethanol production; these data are converted to Btu by multiplying by 4.641 million Btu per barrel (the estimated quantity-weighted factor of pentanes plus and conventional motor gasoline used as denaturant).

2009 and 2010: U.S. Energy Information Administration (EIA), *Petroleum Supply Monthly (PSM)*, monthly reports, Table 1. Data in thousand barrels for net production of pentanes plus at renewable fuels and oxygenate plants are multiplied by -1; these data are converted to Btu by multiplying by 4.620 million Btu per barrel (the approximate heat content of pentanes plus). Data in thousand barrels for net production of conventional motor gasoline at renewable fuels and oxygenate plants are multiplied by -1; these data are converted to Btu by multiplying by 5.253 million Btu per barrel (the approximate heat content of conventional motor gasoline). Total denaturant is the sum of the values for pentanes plus and conventional motor gasoline.

Production

1981–1992: Fuel ethanol production is assumed to equal fuel ethanol consumption—see sources for "Consumption."

1993–2004: Calculated as fuel ethanol consumption plus fuel ethanol stock change minus fuel ethanol net imports. These data differ slightly from the original production data from EIA, Form EIA-819, "Monthly Oxygenate Report," and predecessor form, which were not reconciled and updated to be consistent with the final balance.

2005–2008: EIA, Form EIA-819, "Monthly Oxygenate Report."

2009 and 2010: EIA, PSM, monthly reports.

Trade, Stocks, and Stock Change

1992–2008: EIA, *Petroleum Supply Annual (PSA)*, annual reports.

2009 and 2010: EIA, PSM, monthly reports.

Consumption

1981–1989: EIA, *Estimates of U.S. Biofuels Consumption 1990*, Table 10; and EIA, Office of Coal, Nuclear, Electric and Alternate Fuels (CNEAF), estimates.

1990–1992: EIA, *Estimates of U.S. Biomass Energy Consumption 1992*, Table D2; and EIA, CNEAF, estimates.

1993–2004: EIA, PSA, annual reports, Tables 2 and 16. Calculated as 10 percent of oxygenated finished motor gasoline field production (Table 2), plus fuel ethanol refinery input (Table 16).

2005–2008: EIA, PSA, annual reports, Tables 1 and 15. Calculated as motor gasoline blending components adjustments (Table 1), plus finished motor gasoline adjustments (Table 1), plus fuel ethanol refinery and blender net inputs (Table 15).

2009 and 2010: EIA, PSM, monthly reports, Table 1. Calculated as fuel ethanol refinery and blender net inputs minus fuel ethanol adjustments.

Consumption Minus Denaturant

Calculated as fuel ethanol consumption minus the amount of denaturant in fuel ethanol consumed. Denaturant in fuel ethanol consumed is estimated by multiplying denaturant in fuel ethanol produced by the fuel ethanol consumption-to-production ratio.

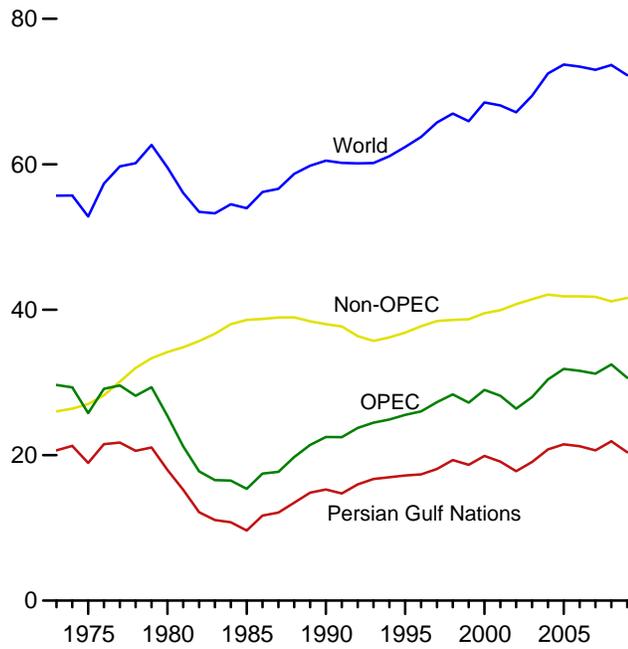
International Petroleum



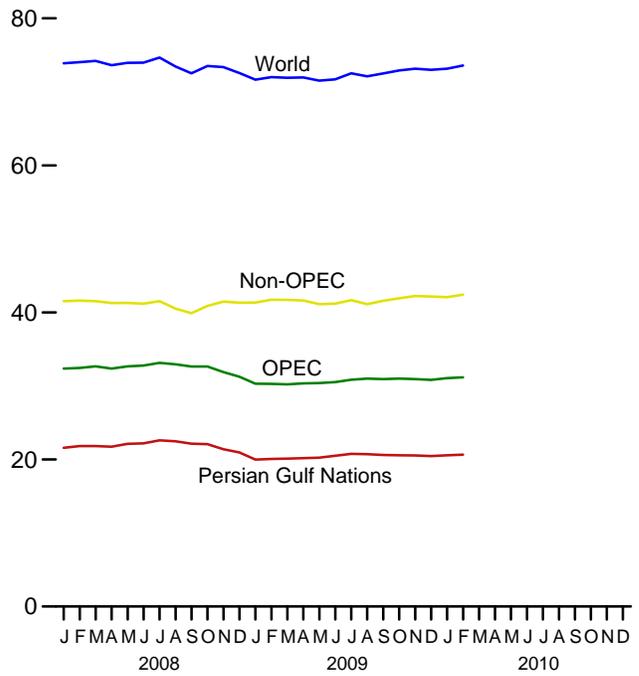
Drilling rig, Gansu Province, People's Republic of China. Source: U.S. Department of Energy.

Figure 11.1a World Crude Oil Production Overview
(Million Barrels per Day)

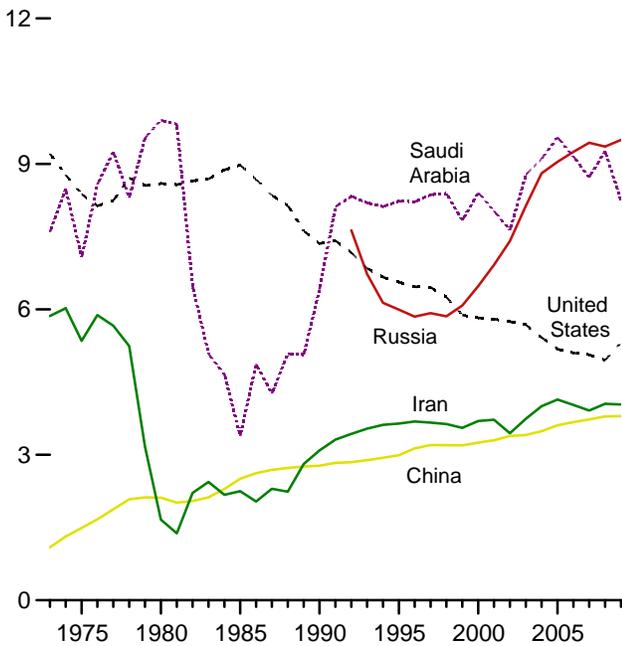
World Production, 1973-2009



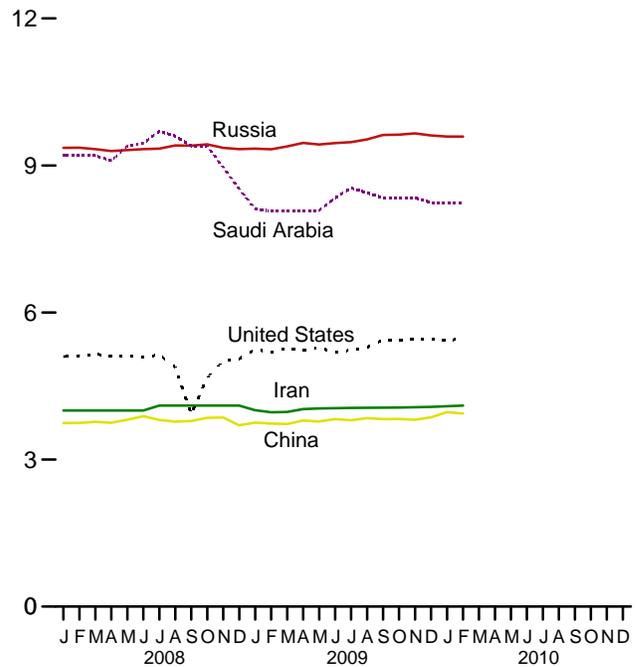
World Production, Monthly



Selected Producers, 1973-2009



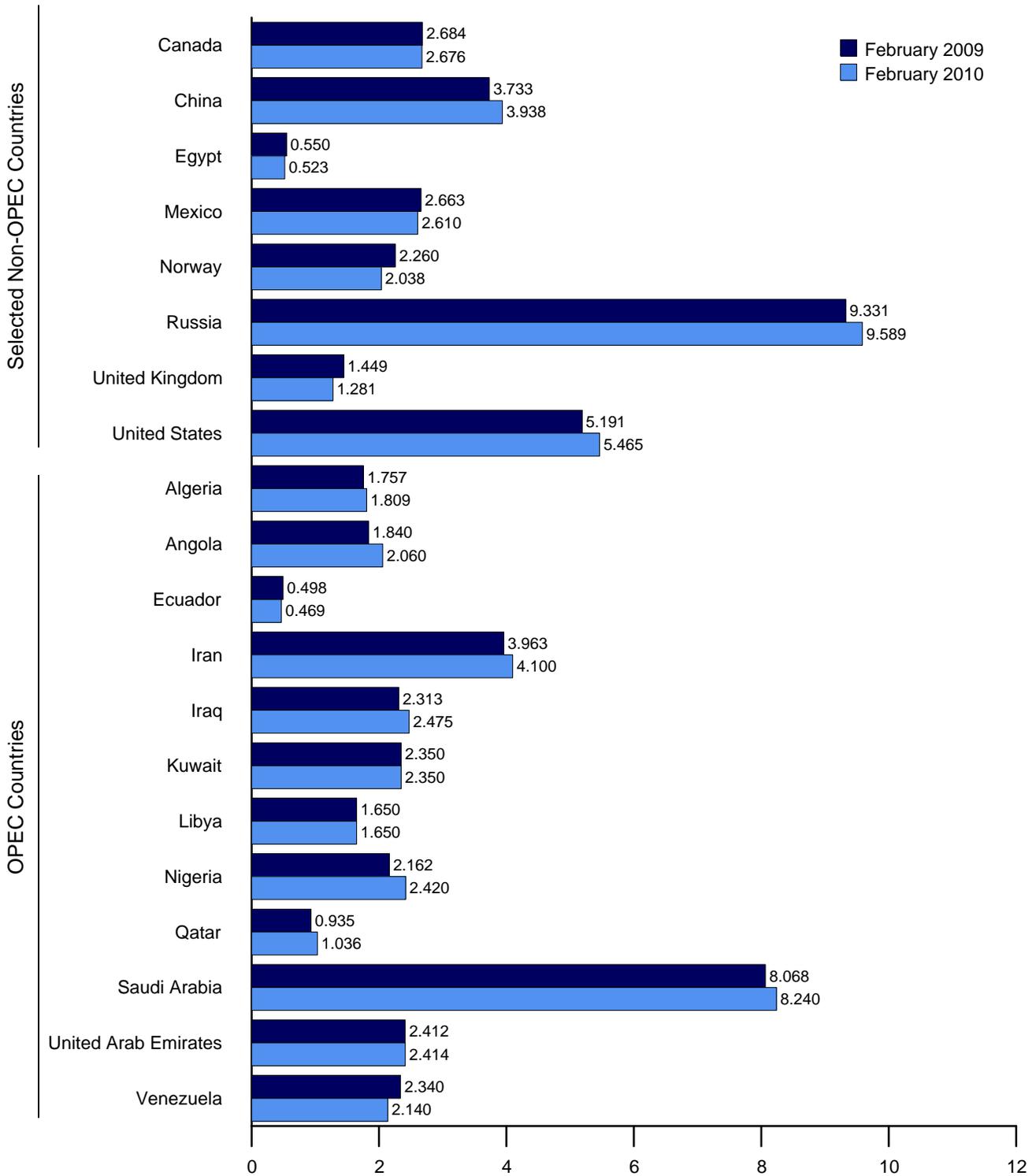
Selected Producers, Monthly



Notes: • OPEC is the Organization of the Petroleum Exporting Countries.
• 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."

Web Page: <http://www.eia.doe.gov/emeu/mer/inter.html>.
Sources: Tables 11.1a and 11.1b.

Figure 11.1b World Crude Oil Production by Selected Country
(Million Barrels per Day)



Note: OPEC is the Organization of the Petroleum Exporting Countries.
 Web Page: <http://www.eia.doe.gov/emeu/mer/inter.html>.
 Sources: Tables 11.1a and 11.1b.

Table 11.1a World Crude Oil Production: OPEC Members
(Thousand Barrels per Day)

	Algeria	Angola	Ecuador	Iran	Iraq	Kuwait ^a	Libya	Nigeria	Qatar	Saudi Arabia ^a	United Arab Emirates	Venezuela	Total OPEC ^b
1973 Average	1,097	162	209	5,861	2,018	3,020	2,175	2,054	570	7,596	1,533	3,366	29,661
1975 Average	983	165	161	5,350	2,262	2,084	1,480	1,783	438	7,075	1,664	2,346	25,790
1980 Average	1,106	150	204	1,662	2,514	1,656	1,787	2,055	472	9,900	1,709	2,168	25,383
1985 Average	1,037	231	281	2,250	1,433	1,023	1,059	1,495	301	3,388	1,193	1,677	15,368
1990 Average	1,175	475	285	3,088	2,040	1,175	1,375	1,810	406	6,410	2,117	2,137	22,493
1995 Average	1,202	646	392	3,643	560	2,057	1,390	1,993	442	8,231	2,233	2,750	25,540
1996 Average	1,242	709	396	3,686	579	2,062	1,401	2,001	510	8,218	2,278	2,938	26,018
1997 Average	1,277	714	388	3,664	1,155	2,007	1,446	2,132	550	8,362	2,316	3,280	27,292
1998 Average	1,246	735	375	3,634	2,150	2,085	1,390	2,153	696	8,389	2,345	3,167	28,366
1999 Average	1,202	745	373	3,557	2,508	1,898	1,319	2,130	665	7,833	2,169	2,826	27,224
2000 Average	1,254	746	395	3,696	2,571	2,079	1,410	2,165	737	8,404	2,368	3,155	28,980
2001 Average	1,310	742	412	3,724	2,390	1,998	1,367	2,256	714	8,031	2,205	3,010	28,159
2002 Average	1,306	896	393	3,444	2,023	1,894	1,319	2,118	679	7,634	2,082	2,604	26,392
2003 Average	1,611	903	411	3,743	1,308	2,136	1,421	2,275	715	8,775	2,348	2,335	27,980
2004 Average	1,677	1,052	528	4,001	2,011	2,376	1,515	2,329	783	9,101	2,478	2,557	30,408
2005 Average	1,797	1,250	532	4,139	1,878	2,529	1,633	2,627	835	9,550	2,535	2,565	31,871
2006 Average	1,814	1,413	536	4,028	1,996	2,535	1,681	2,440	850	9,152	2,636	2,511	31,591
2007 Average	1,834	1,744	511	3,912	2,086	2,464	1,702	2,350	851	8,722	2,603	2,433	31,210
2008 January	1,826	1,992	520	4,000	2,203	2,550	1,790	2,230	892	9,200	2,709	2,440	32,352
February	1,826	1,997	519	4,000	2,353	2,600	1,790	2,100	916	9,200	2,709	2,440	32,449
March	1,825	2,003	508	4,000	2,353	2,600	1,790	2,330	920	9,200	2,710	2,430	32,669
April	1,825	2,009	510	4,000	2,353	2,600	1,769	2,130	934	9,100	2,710	2,420	32,361
May	1,825	2,015	499	4,000	2,453	2,600	1,745	2,060	938	9,400	2,710	2,410	32,655
June	1,824	2,013	495	4,000	2,453	2,607	1,745	2,140	942	9,450	2,710	2,400	32,780
July	1,824	2,009	498	4,100	2,505	2,614	1,720	2,120	947	9,700	2,710	2,390	33,138
August	1,824	1,937	503	4,100	2,456	2,622	1,645	2,216	951	9,600	2,711	2,380	32,945
September	1,824	1,871	498	4,100	2,328	2,629	1,745	2,210	955	9,400	2,711	2,370	32,640
October	1,824	1,990	497	4,100	2,328	2,629	1,745	2,185	925	9,400	2,661	2,360	32,643
November	1,824	1,990	502	4,100	2,359	2,486	1,700	2,180	885	8,959	2,561	2,350	31,895
December	1,824	1,940	508	4,100	2,360	2,493	1,650	2,080	885	8,518	2,561	2,340	31,259
Average	1,825	1,981	505	4,050	2,375	2,586	1,736	2,165	924	9,261	2,681	2,394	32,483
2009 January	1,758	1,915	504	4,007	2,212	2,350	1,650	2,192	860	8,113	2,411	2,340	30,312
February	1,757	1,840	498	3,963	2,313	2,350	1,650	2,162	935	8,068	2,412	2,340	30,288
March	1,757	1,840	497	3,970	2,365	2,350	1,650	2,060	910	8,072	2,412	2,340	30,223
April	1,757	1,840	495	4,030	2,366	2,350	1,650	2,217	910	8,077	2,412	2,240	30,344
May	1,757	1,840	486	4,044	2,418	2,350	1,650	2,212	910	8,081	2,412	2,240	30,399
June	1,756	1,840	491	4,050	2,419	2,350	1,650	2,059	910	8,335	2,412	2,240	30,514
July	1,806	1,890	483	4,053	2,470	2,350	1,650	2,051	910	8,540	2,413	2,240	30,857
August	R 1,806	1,950	477	4,056	2,472	2,350	1,650	2,193	945	8,440	2,413	2,240	R 30,992
September	R 1,806	1,950	475	4,060	2,473	2,350	1,650	2,240	945	8,340	2,413	2,240	R 30,942
October	R 1,806	1,990	475	4,063	2,425	2,350	1,650	2,290	951	8,340	2,413	2,240	R 30,993
November	R 1,806	1,990	477	4,067	2,375	2,350	1,650	2,370	962	8,340	2,413	2,140	R 30,940
December	R 1,806	1,990	470	4,076	2,375	2,350	1,650	2,450	974	8,240	2,414	2,040	R 30,834
Average	R 1,782	1,907	486	4,037	2,391	2,350	1,650	2,208	927	8,250	2,413	2,239	R 30,639
2010 January	R 1,810	2,040	R 463	4,088	2,475	2,350	1,650	2,480	969	8,240	2,414	2,090	R 31,068
February	1,809	2,060	469	4,100	2,475	2,350	1,650	2,420	1,036	8,240	2,414	2,140	31,163
2-Month Average	1,810	2,049	466	4,094	2,475	2,350	1,650	2,452	1,001	8,240	2,414	2,114	31,113
2009 2-Month Average	1,758	1,879	501	3,986	2,260	2,350	1,650	2,178	895	8,092	2,412	2,340	30,301
2008 2-Month Average	1,826	1,994	520	4,000	2,275	2,574	1,790	2,167	903	9,200	2,709	2,440	32,399

^a Except for the period from August 1990 through May 1991, includes about one-half of the production in the Kuwait-Saudi Arabia Neutral Zone. Kuwaiti Neutral Zone output was discontinued following Iraq's invasion of Kuwait on August 2, 1990, but was resumed in June 1991. In February 2010, Neutral Zone production by both Kuwait and Saudi Arabia totaled about 510 thousand barrels per day. Data for Saudi Arabia include approximately 150 thousand barrels per day from the Abu Safah field produced on behalf of Bahrain.

^b See "Organization of the Petroleum Exporting Countries (OPEC)" in Glossary. On Tables 11.1a and 11.1b, countries are classified as "OPEC" or "Non-OPEC" in all years based on their status in the most current year. For example, Ecuador rejoined OPEC in 2007, and is thus included in "Total OPEC"

for all years; and Indonesia left OPEC at the end of 2008, and is thus included in "Total Non-OPEC" for all years.

R=Revised.

Notes: • Data are for crude oil and lease condensate; they exclude 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: See <http://www.eia.doe.gov/emeu/mer/inter.html> for all available data beginning in 1973.

Sources: See end of section.

Table 11.1b World Crude Oil Production: Persian Gulf Nations, Non-OPEC, and World (Thousand Barrels per Day)

	Persian Gulf Nations ^b	Selected Non-OPEC ^a Producers									Total Non-OPEC ^a	World
		Canada	China	Egypt	Mexico	Norway	Former U.S.S.R.	Russia	United Kingdom	United States		
1973 Average	20,668	1,798	1,090	165	465	32	8,324	NA	2	9,208	26,018	55,679
1975 Average	18,934	1,430	1,490	235	705	189	9,523	NA	12	8,375	27,039	52,828
1980 Average	17,961	1,435	2,114	595	1,936	486	11,706	NA	1,622	8,597	34,175	59,558
1985 Average	9,630	1,471	2,505	887	2,745	773	11,585	NA	2,530	8,971	38,598	53,966
1990 Average	15,278	1,553	2,774	873	2,553	1,630	10,975	NA	1,820	7,355	37,999	60,492
1995 Average	17,208	1,805	2,990	920	2,618	2,766	--	5,995	2,489	6,560	36,845	62,385
1996 Average	17,367	1,837	3,131	922	2,855	3,091	--	5,850	2,568	6,465	37,733	63,752
1997 Average	18,095	1,922	3,200	856	3,023	3,142	--	5,920	2,518	6,452	38,452	65,744
1998 Average	19,337	1,981	3,198	834	3,070	3,011	--	5,854	2,616	6,252	38,599	66,966
1999 Average	18,667	1,907	3,195	852	2,906	3,019	--	6,079	2,684	5,881	38,698	65,922
2000 Average	19,892	1,977	3,249	768	3,012	3,222	--	6,479	2,275	5,822	39,515	68,495
2001 Average	19,098	2,029	3,300	720	3,127	3,226	--	6,917	2,282	5,801	39,940	68,099
2002 Average	17,794	2,171	3,390	715	3,177	3,131	--	7,408	2,292	5,746	40,766	67,158
2003 Average	19,063	2,306	3,409	713	3,371	3,042	--	8,132	2,093	5,681	41,452	69,433
2004 Average	20,787	2,398	3,485	673	3,383	2,954	--	8,805	1,845	5,419	42,068	72,476
2005 Average	21,501	2,369	3,609	658	3,334	2,698	--	9,043	1,649	5,178	41,848	73,719
2006 Average	21,232	2,525	3,673	R 633	3,256	2,491	--	9,247	1,490	5,102	R 41,838	R 73,429
2007 Average	20,672	2,628	3,729	637	3,076	2,270	--	9,437	1,498	5,064	41,777	72,987
2008 January	21,588	R 2,534	3,744	609	2,928	2,209	--	9,359	1,456	5,100	R 41,529	R 73,881
February	21,813	R 2,545	3,747	605	2,909	2,176	--	9,362	1,491	5,122	R 41,593	R 74,043
March	21,818	R 2,631	3,769	601	2,839	2,209	--	9,334	1,450	5,151	R 41,546	R 74,215
April	21,732	R 2,516	3,751	597	2,757	2,111	--	9,296	1,491	5,117	R 41,274	R 73,634
May	22,136	R 2,439	3,811	593	2,791	2,247	--	9,315	1,485	5,102	R 41,295	R 73,950
June	22,197	R 2,471	3,884	589	2,833	2,002	--	9,334	1,363	5,098	R 41,187	R 73,967
July	22,610	R 2,650	3,808	R 576	2,778	2,302	--	9,344	1,307	5,133	R 41,535	R 74,673
August	22,474	R 2,682	3,774	R 562	2,759	2,057	--	9,409	1,099	4,894	R 40,513	R 73,458
September	22,157	R 2,562	3,788	R 563	2,722	2,057	--	9,406	1,392	3,930	R 39,885	R 72,526
October	22,077	R 2,600	3,850	R 560	2,757	2,241	--	9,430	1,352	4,669	R 40,879	R 73,522
November	21,384	R 2,683	3,859	R 557	2,711	2,276	--	9,359	1,396	5,024	R 41,473	R 73,368
December	20,952	R 2,633	3,699	R 556	2,717	2,287	--	9,333	1,423	5,056	R 41,315	R 72,574
Average	21,913	R 2,579	3,790	R 581	2,792	2,182	--	9,357	1,391	4,950	R 41,169	R 73,652
2009 January	19,989	R 2,592	3,755	R 553	2,685	2,195	--	9,343	1,425	E 5,246	R 41,336	R 71,648
February	20,076	R 2,684	3,733	R 550	2,663	2,260	--	9,331	1,449	E 5,191	R 41,720	R 72,009
March	20,114	R 2,579	3,726	R 547	2,652	2,238	--	9,388	1,451	E 5,270	R 41,704	R 71,927
April	20,179	R 2,459	3,795	R 547	2,642	2,072	--	9,459	1,468	E 5,228	R 41,613	R 71,957
May	20,249	R 2,437	3,775	R 544	2,609	1,890	--	9,429	1,390	E 5,283	R 41,125	R 71,524
June	20,511	R 2,559	3,824	R 541	2,519	1,850	--	9,457	1,359	E 5,183	R 41,192	R 71,706
July	20,771	R 2,667	3,801	R 538	2,561	2,147	--	9,476	1,342	E 5,233	R 41,675	R 72,532
August	20,711	R 2,575	3,844	R 535	2,542	1,970	--	9,532	993	E 5,286	R 41,120	R 72,112
September	20,616	R 2,477	3,826	R 532	2,599	1,923	--	9,623	1,119	E 5,444	R 41,571	R 72,513
October	20,577	R 2,508	3,828	R 529	2,602	2,077	--	9,629	1,266	E 5,422	R 41,925	R 72,918
November	20,542	R 2,716	3,813	R 526	2,553	2,123	--	9,654	1,372	E 5,466	R 42,222	R 73,162
December	20,464	R 2,670	3,863	R 523	2,593	2,073	--	9,614	1,310	E 5,460	R 42,162	R 72,996
Average	20,402	R 2,576	3,799	R 539	2,601	2,067	--	9,495	1,328	E 5,310	R 41,612	R 72,251
2010 January	20,571	R 2,490	3,968	R 523	2,615	2,060	--	9,590	R 1,371	E 5,433	R 42,082	R 73,150
February	20,650	2,676	3,938	523	2,610	2,038	--	9,589	1,281	E 5,465	42,430	73,593
2-Month Average	20,608	2,578	3,954	523	2,613	2,050	--	9,589	1,328	E 5,448	42,247	73,360
2009 2-Month Average	20,030	2,635	3,745	552	2,675	2,226	--	9,337	1,436	E 5,220	41,518	71,819
2008 2-Month Average	21,697	2,540	3,745	607	2,919	2,193	--	9,360	1,473	5,110	41,560	73,959

^a See "Organization of the Petroleum Exporting Countries (OPEC)" in Glossary. On Tables 11.1a and 11.1b, countries are classified as "OPEC" or "Non-OPEC" in all years based on their status in the most current year. For example, Ecuador rejoined OPEC in 2007, and is thus included in "Total OPEC" for all years; and Indonesia left OPEC at the end of 2008, and is thus included in "Total Non-OPEC" for all years.

^b Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, United Arab Emirates, and the Neutral Zone (between Kuwait and Saudi Arabia).

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

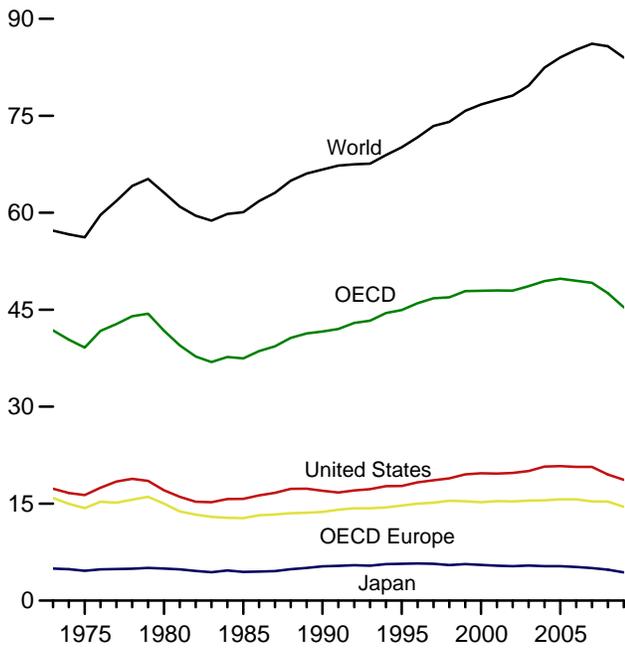
Notes: • Data are for crude oil and lease condensate; they exclude natural gas plant liquids. • Monthly data are often preliminary figures and may not average to the annual totals because of rounding or because updates to the preliminary monthly data are not available. • Data for countries may not sum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

Web Page: See <http://www.eia.doe.gov/emeu/mer/inter.html> for all available data beginning in 1973.

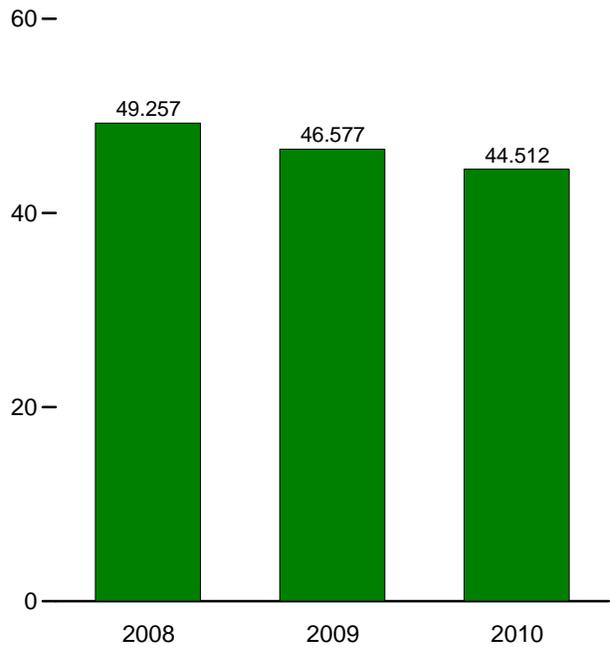
Sources: See end of section.

Figure 11.2 Petroleum Consumption in OECD Countries
(Million Barrels per Day)

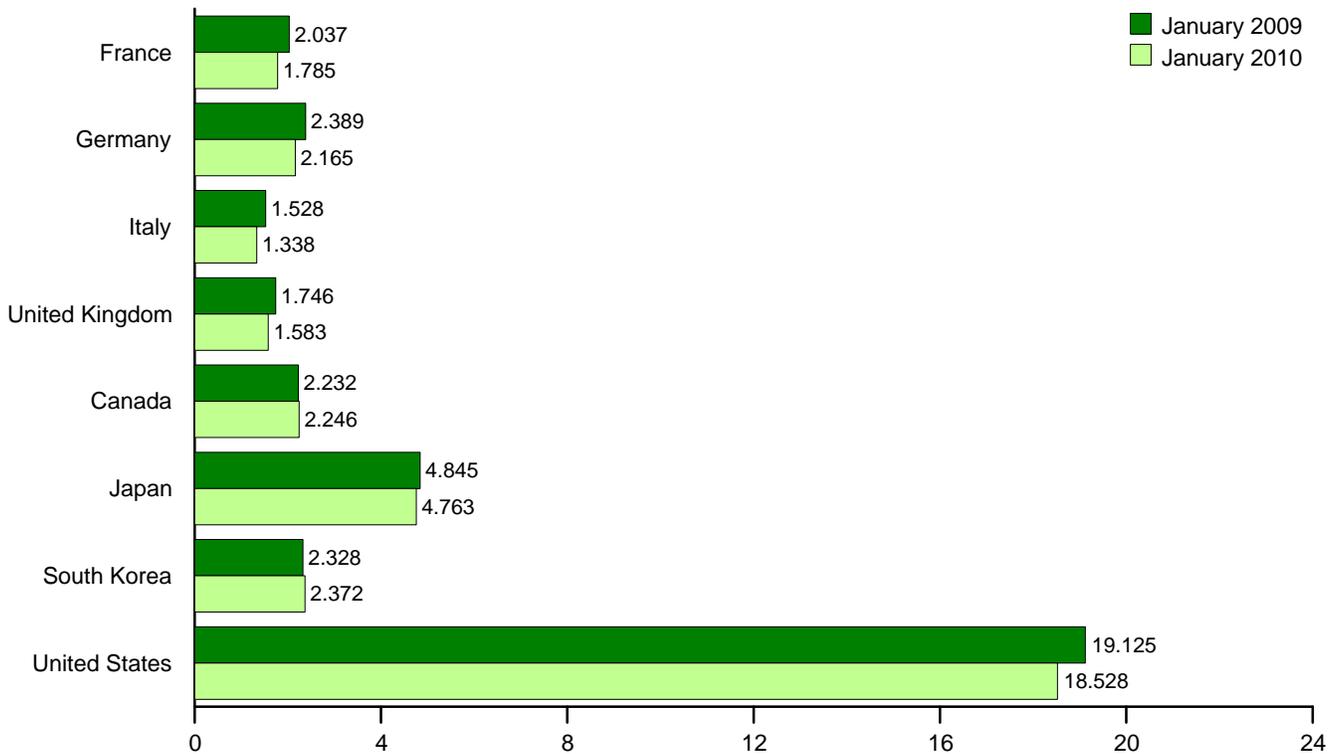
Overview, 1973-2009



OECD Total, January



By Selected OECD Country



Note: OECD is the Organization for Economic Cooperation and Development.
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)

	France	Germany ^a	Italy	United Kingdom	OECD Europe ^b	Canada	Japan	South Korea	United States	Other OECD ^c	OECD ^d	World
1973 Average	2,601	3,324	2,068	2,341	15,879	1,729	4,949	281	17,308	1,658	41,804	57,237
1975 Average	2,252	2,957	1,855	1,911	14,314	1,779	4,621	311	16,322	1,794	39,141	56,198
1980 Average	2,256	3,082	1,934	1,725	14,995	1,873	4,960	537	17,056	2,342	41,763	63,113
1985 Average	1,753	2,651	1,705	1,617	12,772	1,526	4,436	552	15,726	2,469	37,481	60,085
1990 Average	1,826	2,682	1,868	1,776	13,729	1,737	5,315	1,048	16,988	2,804	41,621	66,687
1995 Average	1,920	2,882	1,942	1,816	14,716	1,817	5,693	2,008	17,725	3,001	44,960	70,132
1996 Average	1,949	2,922	1,920	1,852	14,997	1,871	5,739	2,101	18,309	2,995	46,012	71,671
1997 Average	1,969	2,917	1,934	1,810	15,140	1,959	5,702	2,255	18,620	3,089	46,766	73,431
1998 Average	2,043	2,923	1,943	1,792	15,447	1,949	5,507	1,917	18,917	3,192	46,929	74,067
1999 Average	2,031	2,838	1,891	1,811	15,364	2,036	5,642	2,084	19,519	3,235	47,880	75,758
2000 Average	2,000	2,772	1,854	1,765	15,217	2,035	5,515	2,135	19,701	3,326	47,930	76,741
2001 Average	2,054	2,815	1,832	1,747	15,385	2,066	5,412	2,132	19,649	3,337	47,980	77,468
2002 Average	1,985	2,722	1,870	1,739	15,336	2,087	5,319	2,149	19,761	3,289	47,942	78,119
2003 Average	2,001	2,679	1,860	1,759	15,460	2,217	5,427	2,175	20,034	3,324	48,637	79,681
2004 Average	2,009	2,665	1,794	1,785	15,529	2,310	5,318	2,155	20,731	3,390	49,434	82,456
2005 Average	1,991	2,647	1,755	1,823	15,658	2,342	5,328	2,191	20,802	3,481	49,802	84,038
2006 Average	1,985	2,692	1,743	1,804	15,673	2,253	5,197	2,180	20,687	3,499	49,490	85,202
2007 Average	1,968	2,471	1,688	1,738	15,338	2,306	5,036	2,241	20,680	3,560	49,161	86,138
2008												
January	2,090	2,493	1,659	1,706	15,390	2,327	5,408	2,394	20,247	3,490	49,257	NA
February	2,023	2,584	1,732	1,817	15,636	2,351	5,924	2,371	20,029	3,572	49,884	NA
March	1,911	2,411	1,585	1,686	14,855	2,249	5,061	2,288	19,831	3,428	47,711	NA
April	2,036	2,525	1,643	1,833	15,605	2,138	5,035	2,121	19,815	3,694	48,408	NA
May	1,880	2,320	1,639	1,631	14,678	2,199	4,489	2,203	19,798	3,607	46,974	NA
June	1,928	2,434	1,638	1,720	14,951	2,244	4,383	2,016	19,678	3,468	46,740	NA
July	1,954	2,647	1,732	1,635	15,459	2,288	4,479	2,050	19,557	3,680	47,512	NA
August	1,885	2,632	1,527	1,588	15,002	2,203	4,215	2,050	19,272	3,511	46,254	NA
September	2,025	2,842	1,667	1,733	16,134	2,263	4,333	2,190	17,839	3,406	46,164	NA
October	2,078	2,857	1,663	1,738	15,944	2,297	4,379	2,045	19,698	3,374	47,738	NA
November	1,911	2,620	1,561	1,721	15,069	2,274	4,609	2,082	19,052	3,307	46,393	NA
December	2,116	2,470	1,628	1,721	15,277	2,220	5,150	2,293	19,142	3,571	47,655	NA
Average	1,986	2,569	1,639	1,710	15,331	2,254	4,785	2,175	19,498	3,509	47,552	85,752
2009												
January	2,037	2,389	1,528	1,746	14,749	2,232	4,845	2,328	19,125	3,297	46,577	NA
February	2,049	2,613	1,585	1,701	15,056	2,221	4,716	2,490	18,706	3,406	46,595	NA
March	1,966	2,723	1,531	1,742	14,911	2,154	4,611	2,218	18,672	3,365	45,931	NA
April	1,847	2,475	1,531	1,710	14,418	2,049	4,226	2,241	18,471	3,329	44,734	NA
May	1,715	2,329	1,490	1,616	13,752	2,053	3,818	2,159	18,176	^R 3,355	^R 43,313	NA
June	1,865	2,363	1,545	1,694	14,554	2,142	4,064	2,109	18,762	3,463	45,093	NA
July	1,885	2,408	1,704	1,662	14,700	2,170	3,996	2,036	18,771	^R 3,488	^R 45,161	NA
August	1,623	2,259	1,407	1,657	13,749	2,157	4,172	2,096	18,732	3,458	44,365	NA
September	1,931	2,545	1,608	1,675	14,961	2,138	4,142	2,066	18,362	3,402	45,071	NA
October	1,891	2,505	1,618	1,654	14,804	^R 2,104	4,298	2,219	18,727	3,527	^R 45,679	NA
November	1,762	2,356	1,512	1,643	14,173	^R 2,142	4,395	2,259	18,550	^R 3,541	^R 45,061	NA
December	1,941	2,295	1,565	1,532	14,190	^R 2,321	5,072	2,397	19,163	^R 3,666	^R 46,810	NA
Average	1,875	2,437	1,552	1,669	14,497	^R 2,157	4,362	2,216	18,686	^R 3,442	^R 45,360	^R 84,016
2010												
January	1,785	2,165	1,338	1,583	13,343	2,246	4,763	2,372	18,528	3,260	44,512	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, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Poland, Portugal, Slovakia, Spain, Sweden, Switzerland, Turkey, and the United Kingdom.

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

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

R=Revised. NA=Not available.

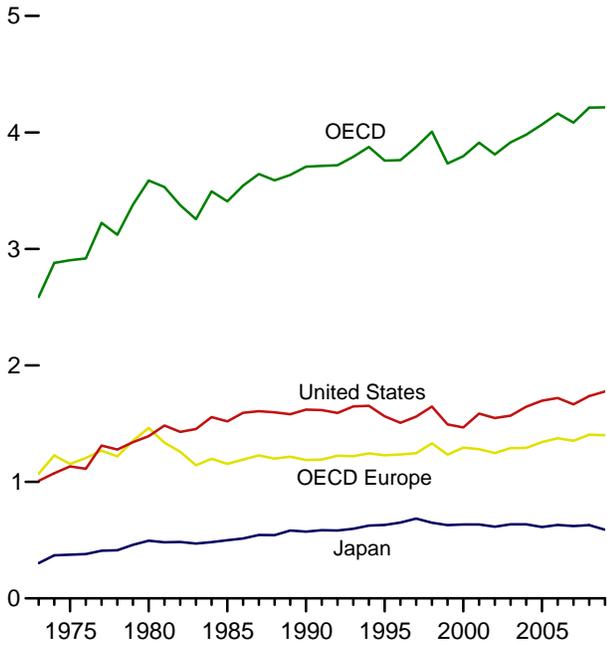
Notes: • Totals may not equal sum of components due to independent rounding. • U.S. geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/inter.html> for all available data beginning in 1973.

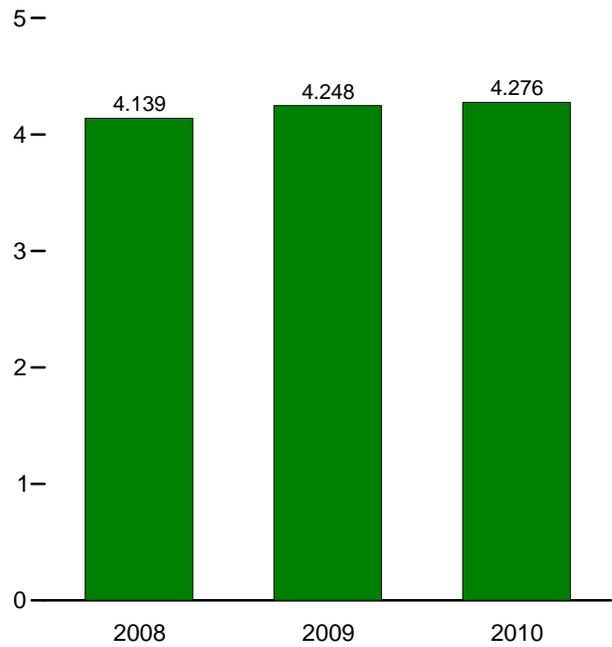
Sources: • **United States:** Table 3.1. • **U.S. Territories:** 1983 forward—U.S. Energy Information Administration (EIA), International Energy Database. • **East Germany, Former Czechoslovakia, Hungary, Mexico, Poland, South Korea, Non-OECD Countries, and World:** 1973-1979—EIA, International Energy Database. 1980-1983—EIA, *International Energy Annual 2005*, August 2007, Table 1.2. • **Non-OECD Countries:** 1984-2005—EIA, *International Energy Annual 2005*, August 2007, Table 1.2. 2006 and 2007—EIA, *Short Term Energy Outlook*, May 2008. • **World:** 1984-2007—Sum of OECD and Non-OECD Countries. • **All Other Data:** 1973-1981—International Energy Agency (IEA), *Quarterly Oil Statistics and Energy Balances in OECD Countries*, various issues. 1982 and 1983—IEA, Monthly Oil and Gas Statistics Database. 1984 forward—IEA, Monthly Oil Data Service, April 13, 2010.

Figure 11.3 Petroleum Stocks in OECD Countries
(Billion Barrels)

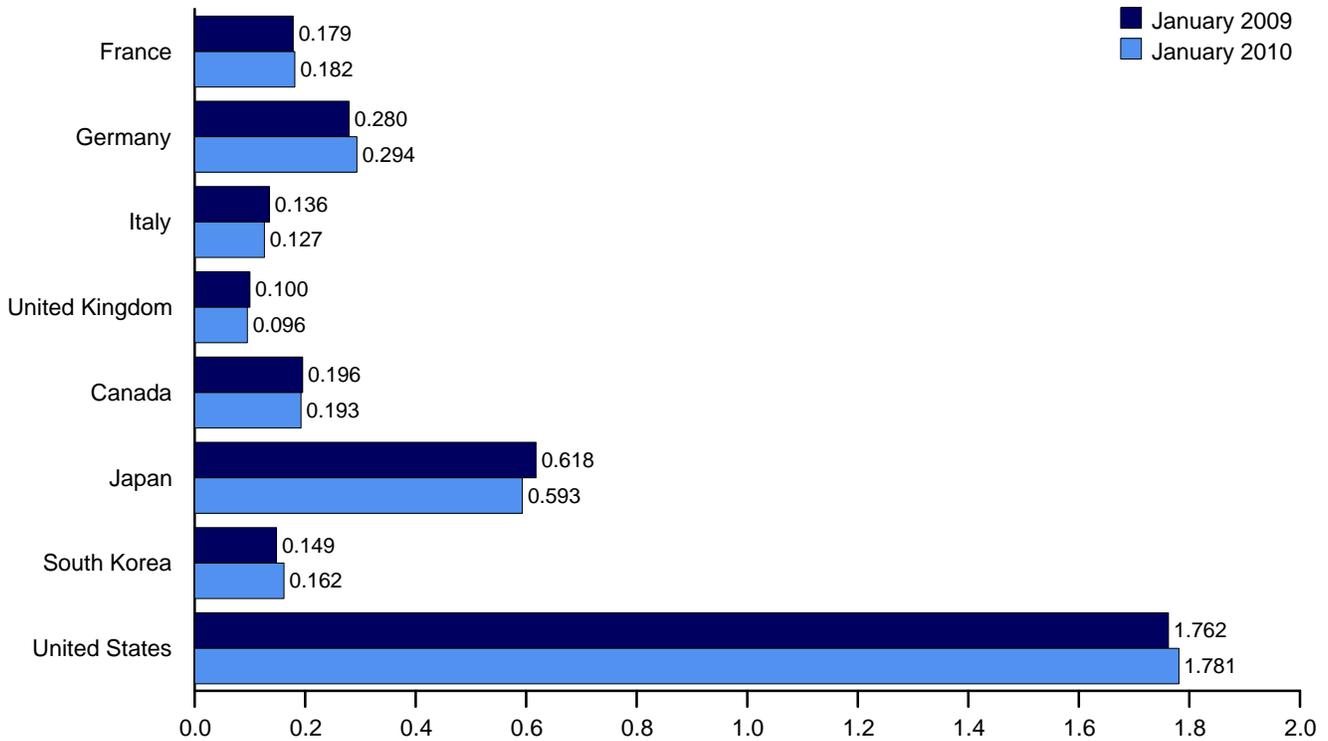
Overview, End of Year, 1973-2009



OECD Stocks, End of Month, January



By Selected OECD Country, End of Month



Note: OECD is the Organization for Economic Cooperation and Development.
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)

	France	Germany ^a	Italy	United Kingdom	OECD Europe ^b	Canada	Japan	South Korea	United States	Other OECD ^c	OECD ^d
1973 Year	201	181	152	156	1,070	140	303	NA	1,008	67	2,588
1975 Year	225	187	143	165	1,154	174	375	NA	1,133	67	2,903
1980 Year	243	319	170	168	1,464	164	495	NA	1,392	72	3,587
1985 Year	139	277	156	131	1,154	112	500	13	1,519	110	3,408
1990 Year	143	280	143	103	1,188	143	572	64	1,621	117	3,706
1995 Year	155	302	141	101	1,228	132	631	92	1,563	113	3,758
1996 Year	154	303	135	103	1,235	127	651	123	1,507	118	3,762
1997 Year	161	299	129	100	1,246	144	685	124	1,560	115	3,875
1998 Year	169	323	135	104	1,331	139	649	129	1,647	111	4,006
1999 Year	160	290	130	101	1,233	142	629	132	1,493	105	3,733
2000 Year	170	272	140	100	1,294	144	634	140	1,468	117	3,796
2001 Year	165	273	134	113	1,281	156	634	143	1,586	112	3,912
2002 Year	170	253	138	104	1,247	157	615	140	1,548	103	3,811
2003 Year	179	273	135	100	1,290	170	636	155	1,568	96	3,914
2004 Year	177	267	136	101	1,292	160	635	149	1,645	99	3,980
2005 Year	185	283	132	95	1,342	178	612	135	1,698	103	4,068
2006 Year	182	283	133	103	1,375	181	631	152	1,720	103	4,162
2007 Year	180	275	133	90	1,353	194	621	143	1,665	108	4,084
2008 January	182	281	136	95	1,381	195	621	155	1,677	110	4,139
February	176	276	129	95	1,355	193	605	149	1,664	114	4,080
March	177	281	131	100	1,384	193	610	143	1,655	111	4,095
April	173	279	134	98	1,366	191	610	141	1,666	106	4,081
May	177	277	136	99	1,370	193	617	146	1,674	^R 108	4,107
June	177	273	137	99	1,368	193	619	147	1,686	110	4,122
July	179	274	135	95	1,387	197	627	153	1,698	105	4,167
August	176	276	131	96	1,382	202	643	150	1,711	106	4,193
September	177	274	130	95	1,364	202	646	141	1,704	117	4,174
October	179	270	129	93	1,361	202	648	138	1,711	122	4,182
November	179	275	127	96	1,377	200	641	139	1,732	117	4,207
December	179	277	128	99	1,405	194	630	135	1,737	^R 113	^R 4,213
2009 January	179	280	136	100	1,409	196	618	149	1,762	^R 114	^R 4,248
February	178	279	128	98	1,405	196	619	157	1,770	^R 108	^R 4,255
March	178	278	131	100	1,409	198	611	155	1,795	^R 109	^R 4,277
April	173	279	132	98	1,400	199	606	152	1,812	^R 114	4,283
May	176	281	133	92	1,395	198	609	149	1,829	112	4,291
June	173	280	129	92	1,395	198	611	149	1,839	110	4,302
July	174	277	127	97	1,389	202	607	157	1,842	108	4,304
August	178	284	130	96	1,407	201	610	160	1,828	111	4,318
September	174	277	129	94	1,397	^R 195	607	167	1,845	117	^R 4,327
October	173	278	130	96	1,377	^R 198	604	167	1,822	109	^R 4,277
November	179	286	130	96	1,410	^R 199	606	162	1,814	^R 109	^R 4,299
December	175	284	126	94	^R 1,400	^R 190	589	155	1,776	105	^R 4,216
2010 January	182	294	127	96	1,435	193	593	162	1,781	111	4,276

^a Through December 1983, the data for Germany are for the former West Germany only. Beginning with January 1984, the data for Germany are for the unified Germany, i.e., the former East Germany and West Germany.

^b "OECD Europe" consists of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, and the United Kingdom, and, for 1984 forward, Czech Republic, Hungary, Poland, and Slovakia.

^c "Other OECD" consists of Australia, New Zealand, and the U.S. Territories, and, for 1984 forward, Mexico.

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

R=Revised. NA=Not available.

Notes: • Stocks are at end of period. • Petroleum stocks include crude oil (including strategic reserves), unfinished oils, natural gas plant liquids, and refined

products. • 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. • 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: See <http://www.eia.doe.gov/emeu/mer/inter.html> for all available data beginning in 1973.

Sources: • **United States:** Table 3.4. • **U.S. Territories:** 1983 forward—U.S. Energy Information Administration, International Energy Database.

• **All Other Data: 1973-1982**—International Energy Agency (IEA), *Quarterly Oil Statistics and Energy Balances*, various issues. **1983**—IEA, Monthly Oil and Gas Statistics Database. **1984 forward**—IEA, Monthly Oil Data Service, April 13, 2010.

International Petroleum

Tables 11.1a and 11.1b Sources

United States

Table 3.1.

All Other Countries and World, Annual Data

1973–1979: U.S. Energy Information Administration (EIA), *International Energy Annual 1981*, Table 8.

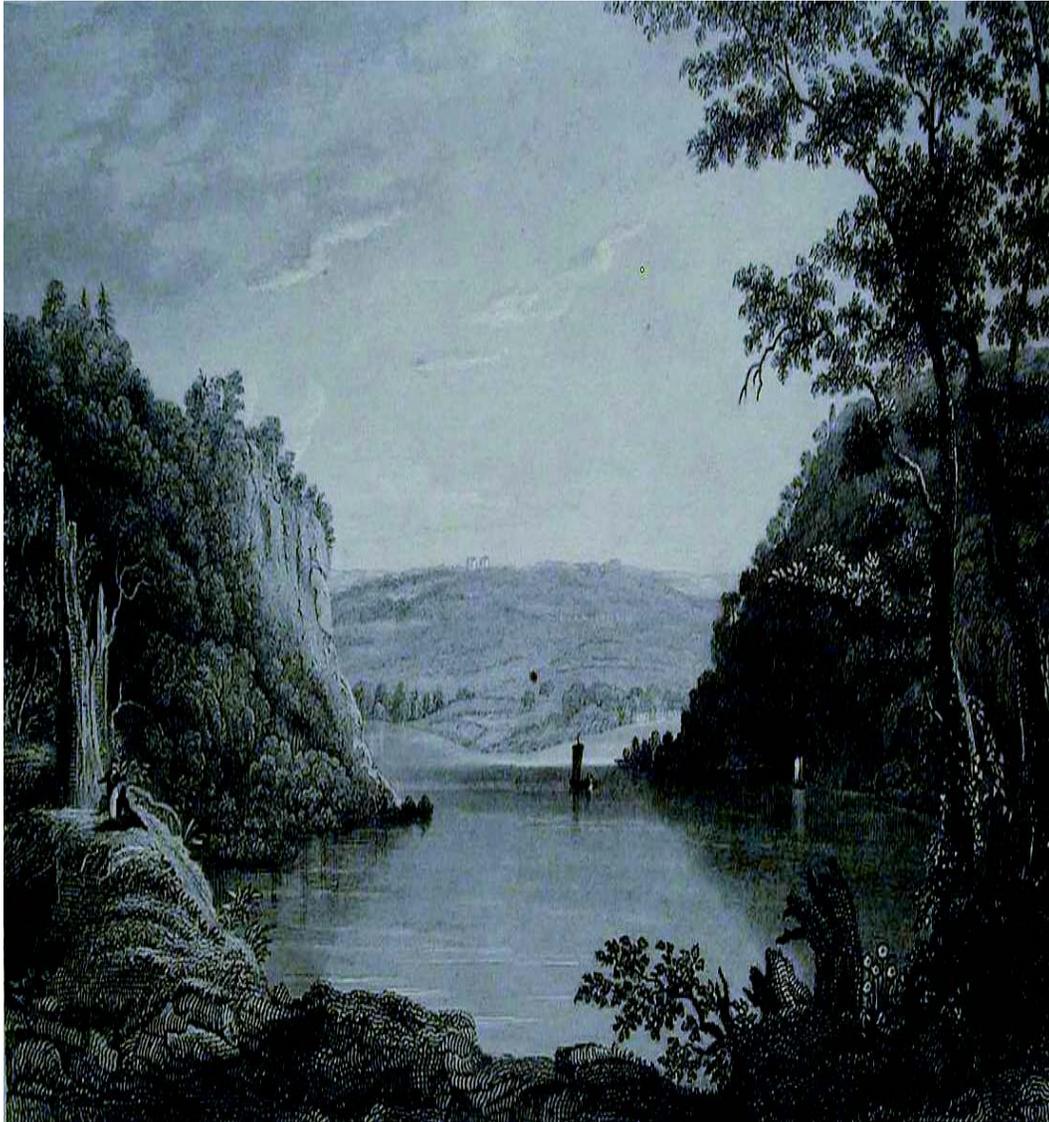
1980 forward: EIA, Office of Energy Markets and End Use (EMEU), International Energy Database, May 2010.

All Other Countries and World, Monthly Data

1973–1980: *Petroleum Intelligence Weekly (PIW)*, *Oil & Gas Journal (OGJ)*, and EIA adjustments.

1981–1993: *PIW*, *OGJ*, and other industry sources.

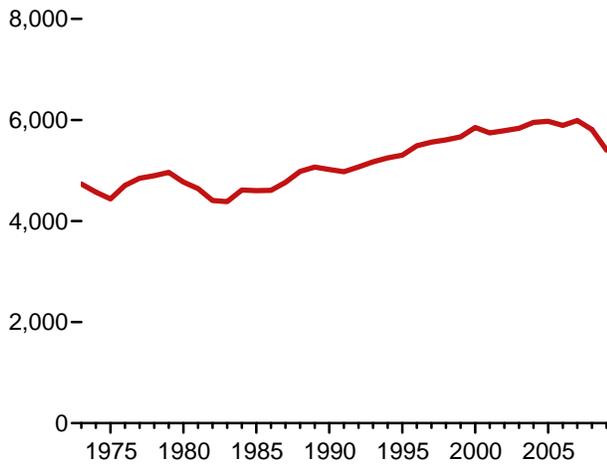
1994 forward: EIA, *International Petroleum Monthly*, and EMEU, International Energy Database, May 2010.



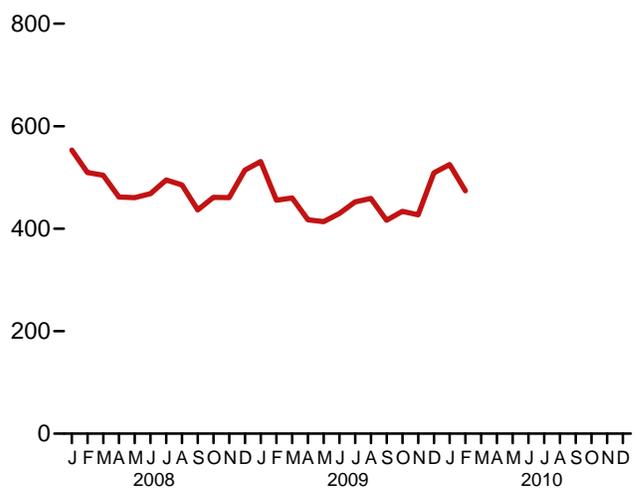
“Harpers Ferry, Junction of the Rivers Shenandoah and Potomac.” Engraving by W. Goodacre and James Archer, published in *The History and Topography of the United States of North America*, by John Howard Hinton, 1852. From the collection of the National Park Service, Harpers Ferry National Historical Park, Accession #1297.

Figure 12.1 Carbon Dioxide Emissions From Energy Consumption by Source
(Million Metric Tons of Carbon Dioxide)

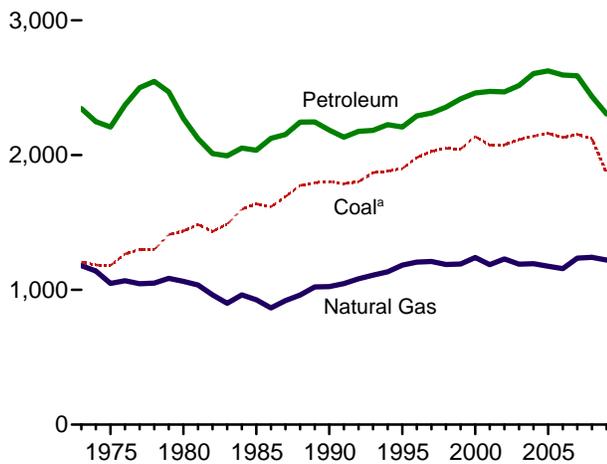
Total, 1973-2009



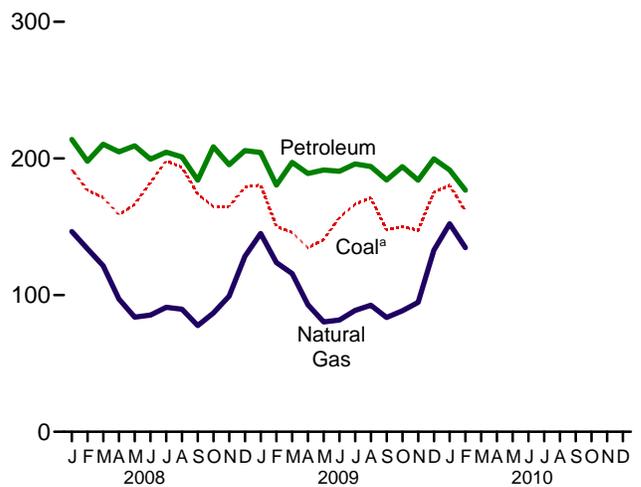
Total, Monthly



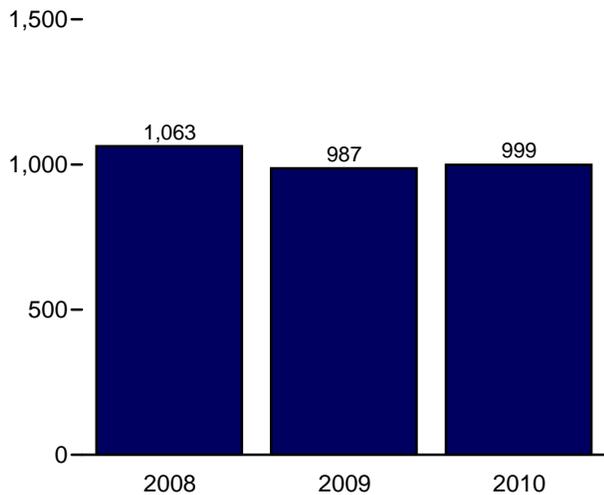
By Source, 1973-2009



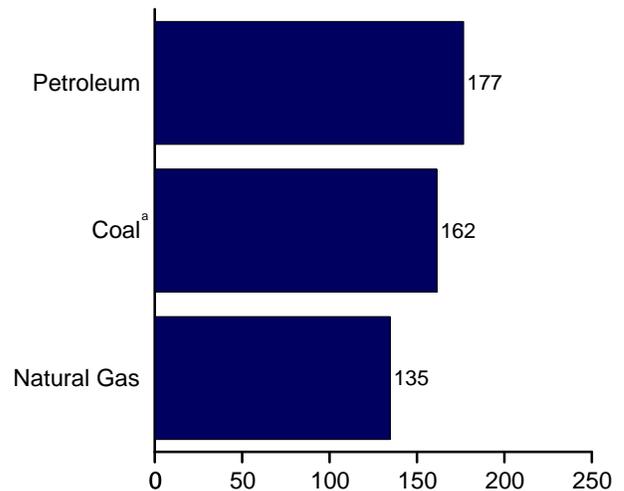
By Source, Monthly



Total, January-February



By Source, February 2010



^a Includes coal coke net imports.
Web Page: <http://www.eia.doe.gov/emeu/mer/environ.html>.
Source: Table 12.1.

Table 12.1 Carbon Dioxide Emissions From Energy Consumption by Source
(Million Metric Tons of Carbon Dioxide^a)

	Coal ^b	Natural Gas ^c	Petroleum										Total	Total ^h
			Aviation Gasoline	Distillate Fuel Oil ^d	Jet Fuel	Kero-sene	LPG ^e	Lubri-cants	Motor Gasoline ^f	Petroleum Coke	Residual Fuel Oil	Other ^g		
1973 Total	1,207	1,181	6	480	155	32	91	13	911	51	508	100	2,346	4,733
1975 Total	1,181	1,047	5	443	146	24	82	11	911	48	443	97	2,209	4,437
1980 Total	1,436	1,063	4	446	156	24	87	13	900	46	453	142	2,272	4,770
1985 Total	1,638	926	3	445	178	17	86	12	930	55	216	93	2,035	4,600
1990 Total	1,803	1,025	3	470	223	6	69	13	987	67	220	127	2,186	5,020
1995 Total	1,900	1,184	3	498	222	8	78	13	1,045	75	152	114	2,208	5,302
1996 Total	1,982	1,205	3	524	232	9	84	12	1,063	78	152	132	2,290	5,488
1997 Total	2,027	1,211	3	534	234	10	85	13	1,075	79	142	138	2,313	5,562
1998 Total	2,050	1,189	2	538	238	12	75	14	1,105	89	158	125	2,356	5,605
1999 Total	2,046	1,192	3	555	245	11	91	14	1,128	93	148	130	2,417	5,665
2000 Total	2,138	1,241	3	580	254	10	102	14	1,136	84	163	117	2,461	5,850
2001 Total	2,074	1,187	2	598	243	11	92	13	1,151	88	145	132	2,473	5,745
2002 Total	2,077	1,229	2	587	237	6	98	12	1,181	94	125	127	2,470	5,789
2003 Total	2,116	1,191	2	610	231	8	95	11	1,187	94	138	140	2,517	5,835
2004 Total	2,140	1,194	2	632	240	10	98	12	1,210	105	155	142	2,605	5,951
2005 Total	2,161	1,175	2	640	246	10	94	12	1,212	105	164	141	2,626	5,973
2006 Total	2,130	1,157	2	648	240	8	93	11	1,216	104	122	150	2,595	5,893
2007 Total	2,155	1,235	2	652	238	5	94	12	1,212	98	128	148	2,588	5,990
2008 January	192	147	(s)	55	20	(s)	10	1	97	8	10	12	214	553
February	177	134	(s)	53	18	(s)	9	1	91	7	8	12	198	510
March	171	122	(s)	55	19	(s)	8	1	100	8	9	10	210	504
April	159	97	(s)	52	20	(s)	7	1	96	8	10	11	205	462
May	166	84	(s)	52	20	(s)	6	1	101	8	10	11	209	460
June	182	85	(s)	48	20	(s)	7	1	96	7	10	10	199	468
July	198	91	(s)	49	20	(s)	7	1	100	9	10	9	205	495
August	193	90	(s)	48	20	(s)	7	1	100	8	8	9	201	485
September	174	78	(s)	48	18	(s)	5	1	89	6	8	10	184	437
October	165	87	(s)	55	18	(s)	7	1	98	8	9	12	209	461
November	165	99	(s)	49	17	(s)	7	1	94	7	8	12	195	460
December	179	128	(s)	50	17	1	8	1	97	8	11	12	206	514
Total	2,122	1,241	2	615	226	2	89	11	1,159	92	110	130	2,435	5,810
2009 January	180	145	(s)	54	17	(s)	9	1	95	7	11	11	204	531
February	150	124	(s)	47	15	(s)	7	1	87	6	7	10	181	456
March	146	116	(s)	49	18	(s)	8	1	97	7	9	8	197	460
April	135	93	(s)	44	17	(s)	6	1	94	8	10	8	189	418
May	141	80	(s)	45	17	(s)	6	1	99	8	7	8	192	414
June	157	82	(s)	45	17	(s)	5	1	97	9	9	7	191	430
July	167	89	(s)	46	19	(s)	7	1	101	6	5	11	196	452
August	171	93	(s)	45	18	(s)	7	1	100	7	7	9	194	459
September	148	84	(s)	44	17	(s)	6	1	93	8	5	10	184	417
October	150	^R 88	(s)	48	17	(s)	8	1	97	6	8	9	194	434
November	147	95	(s)	45	16	(s)	9	1	93	6	6	8	184	427
December	175	133	(s)	51	17	(s)	10	1	96	6	9	9	200	509
Total	1,867	^R 1,221	2	564	205	3	88	10	1,150	85	93	108	2,306	5,405
2010 January	^R 180	152	(s)	48	17	(s)	10	1	92	5	9	10	192	^R 525
February	162	135	(s)	46	15	(s)	9	1	84	5	7	10	177	474
2-Month Total	342	287	(s)	94	32	1	19	2	176	10	16	19	368	999
2009 2-Month Total	331	269	(s)	100	32	1	16	1	182	14	17	21	385	987
2008 2-Month Total	369	280	(s)	108	38	1	18	2	188	15	18	24	412	1,063

^a Metric tons of carbon dioxide can be converted to metric tons of carbon equivalent by multiplying by 12/44.

^b Includes coal coke net imports.

^c Natural gas, excluding supplemental gaseous fuels.

^d Distillate fuel oil, excluding biodiesel.

^e Liquefied petroleum gases.

^f Finished motor gasoline, excluding fuel ethanol.

^g Aviation gasoline blending components, crude oil, motor gasoline blending components, pentanes plus, petrochemical feedstocks, special naphthas, still gas, unfinished oils, waxes, and miscellaneous petroleum products.

^h Includes electric power sector use of geothermal energy and non-biomass

waste. See Table 12.6.

R=Revised. (s)=Less than 0.5 million metric tons.

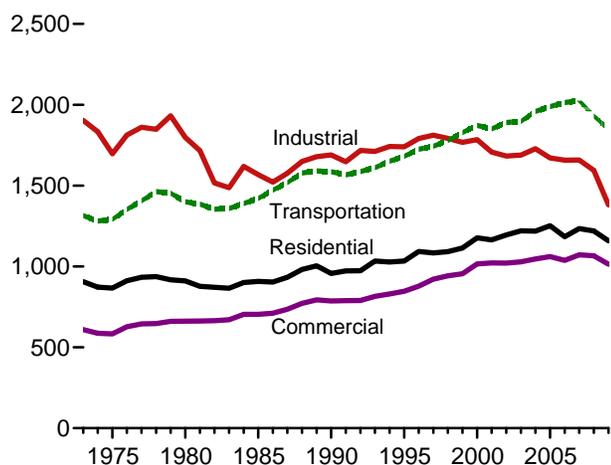
Notes: • Data are estimates. See "Section 12 Methodology and Sources" at end of section. • See "Carbon Dioxide" in Glossary. • See Note, "Emissions of Carbon Dioxide and Other Greenhouse Gases," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.doe.gov/emeu/mer/envIRON.html> for all available data beginning in 1973.

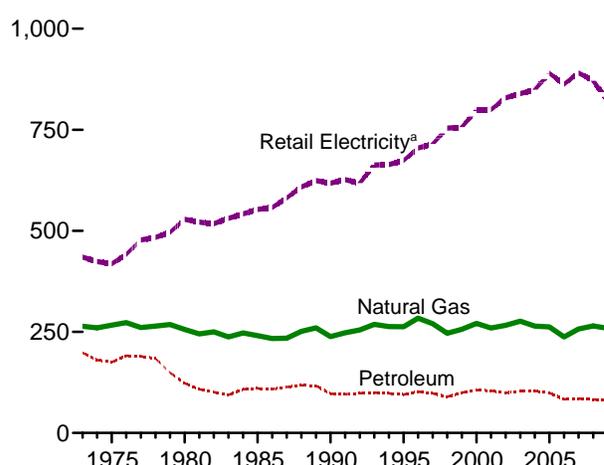
Sources: See end of section.

Figure 12.2 Carbon Dioxide Emissions From Energy Consumption by Sector
(Million Metric Tons of Carbon Dioxide)

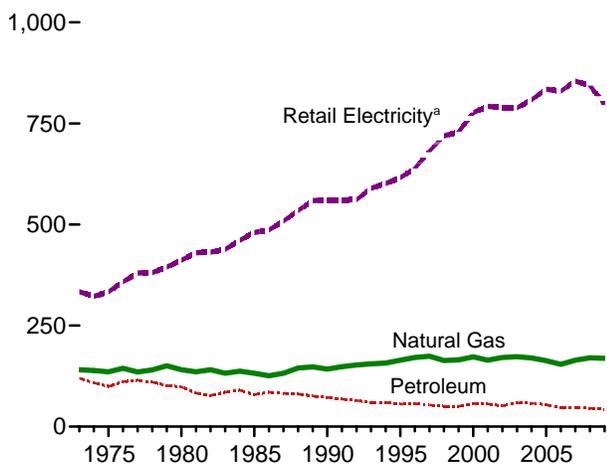
Total by End-Use Sector,^a 1973-2009



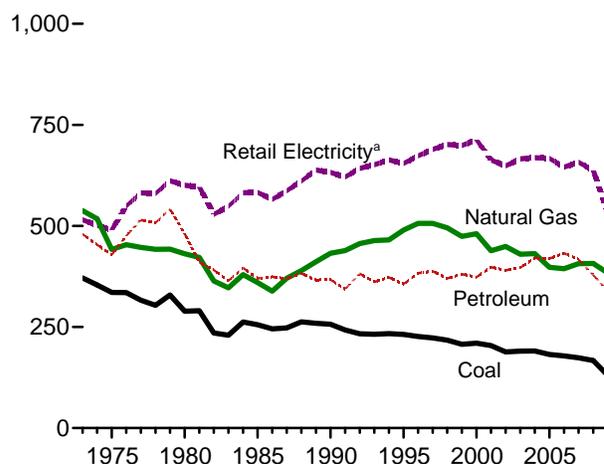
Residential Sector by Major Source, 1973-2009



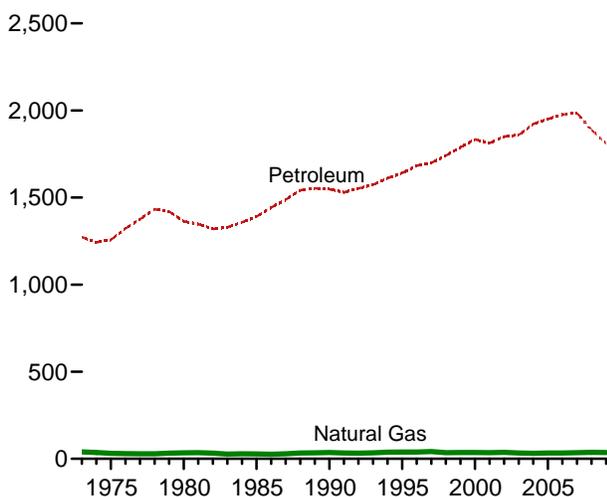
Commercial Sector by Major Source, 1973-2009



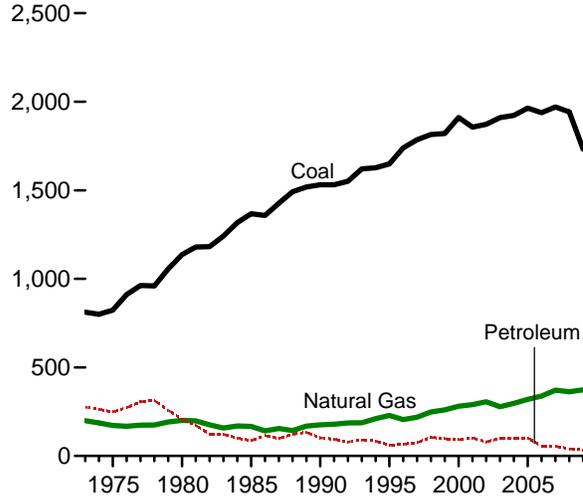
Industrial Sector by Major Source, 1973-2009



Transportation Sector by Major Source, 1973-2009



Electric Power Sector by Major Source, 1973-2009



^a Emissions from energy consumption in the electric power sector are allocated to the end-use sectors in proportion to each sector's share of total electricity retail sales.

Web Page: <http://www.eia.doe.gov/emeu/mer/envIRON.html>.
Sources: Table 12.2-12.6.

Table 12.2 Carbon Dioxide Emissions From Energy Consumption: Residential Sector
(Million Metric Tons of Carbon Dioxide^a)

	Coal	Natural Gas ^b	Petroleum				Retail Electricity ^e	Total
			Distillate Fuel Oil ^c	Kerosene	LPG ^d	Total		
1973 Total	9	264	147	16	35	198	435	906
1975 Total	6	266	132	12	31	175	419	866
1980 Total	3	256	96	8	19	123	529	911
1985 Total	4	241	80	11	19	110	553	907
1990 Total	3	238	72	5	21	97	618	957
1995 Total	2	263	66	5	24	95	674	1,034
1996 Total	2	284	68	6	28	102	705	1,093
1997 Total	2	270	64	7	27	98	715	1,084
1998 Total	1	247	56	8	25	89	754	1,091
1999 Total	1	257	61	8	31	100	757	1,114
2000 Total	1	271	66	7	33	106	799	1,177
2001 Total	1	259	66	7	31	105	800	1,165
2002 Total	1	266	63	4	32	99	829	1,195
2003 Total	1	276	66	5	32	104	839	1,221
2004 Total	1	264	68	6	30	104	849	1,219
2005 Total	1	262	62	6	31	99	890	1,252
2006 Total	1	237	52	5	26	83	863	1,184
2007 Total	1	257	53	3	29	85	891	1,234
2008 January	(s)	48	7	(s)	3	10	86	144
February	(s)	44	7	(s)	3	10	74	128
March	(s)	36	5	(s)	3	8	67	111
April	(s)	21	4	(s)	3	6	57	85
May	(s)	12	3	(s)	3	5	58	76
June	(s)	8	3	(s)	3	6	77	90
July	(s)	6	3	(s)	3	6	92	104
August	(s)	6	3	(s)	3	5	88	100
September	(s)	6	3	(s)	2	5	72	83
October	(s)	12	3	(s)	3	6	60	78
November	(s)	23	4	(s)	3	7	62	92
December	(s)	42	6	(s)	3	9	80	131
Total	1	265	49	2	33	83	871	1,219
2009 January	(s)	51	6	(s)	3	9	85	146
February	(s)	41	5	(s)	3	8	67	116
March	(s)	32	5	(s)	3	8	62	102
April	(s)	21	4	(s)	3	6	53	80
May	(s)	11	3	(s)	2	5	56	72
June	(s)	8	2	(s)	2	5	70	82
July	(s)	6	3	(s)	3	5	83	95
August	(s)	6	3	(s)	3	6	85	^R 96
September	(s)	6	3	(s)	3	6	66	79
October	(s)	14	3	(s)	3	6	59	79
November	(s)	20	3	(s)	3	7	57	84
December	(s)	41	5	(s)	3	9	78	129
Total	1	259	45	2	33	80	820	1,159
2010 January	(s)	52	5	(s)	4	8	90	151
February	(s)	45	4	(s)	3	8	73	126
2-Month Total	(s)	97	9	(s)	7	16	163	277
2009 2-Month Total	(s)	92	11	1	6	17	152	262
2008 2-Month Total	(s)	92	13	(s)	6	20	159	272

^a Metric tons of carbon dioxide can be converted to metric tons of carbon equivalent by multiplying by 12/44.

^b Natural gas, excluding supplemental gaseous fuels.

^c Distillate fuel oil, excluding biodiesel.

^d Liquefied petroleum gases.

^e Emissions from energy consumption (for electricity and a small amount of useful thermal output) in the electric power sector are allocated to the end-use sectors in proportion to each sector's share of total electricity retail sales. See Tables 7.6 and 12.6.

R=Revised. (s)=Less than 0.5 million metric tons.

Notes: • Data are estimates. See "Section 12 Methodology and Sources" at end of section. • See "Carbon Dioxide" in Glossary. • See Note, "Emissions of Carbon Dioxide and Other Greenhouse Gases," 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: See <http://www.eia.doe.gov/emeu/mer/environ.html> for all available data beginning in 1973.

Sources: See end of section.

Table 12.3 Carbon Dioxide Emissions From Energy Consumption: Commercial Sector
(Million Metric Tons of Carbon Dioxide^a)

	Coal	Natural Gas ^b	Petroleum							Retail Electricity ^f	Total
			Distillate Fuel Oil ^c	Kerosene	LPG ^d	Motor Gasoline ^e	Petroleum Coke	Residual Fuel Oil	Total		
1973 Total	15	141	47	5	9	6	NA	52	119	334	609
1975 Total	14	136	43	4	8	6	NA	39	99	333	583
1980 Total	11	141	38	3	5	8	NA	44	98	412	662
1985 Total	13	132	46	2	6	7	NA	18	79	480	704
1990 Total	12	142	39	1	6	8	0	18	72	561	787
1995 Total	11	164	35	2	6	1	(s)	11	56	616	847
1996 Total	12	171	35	2	7	2	(s)	11	57	638	878
1997 Total	12	174	32	2	7	3	(s)	9	53	682	922
1998 Total	9	164	31	2	7	3	(s)	7	50	719	942
1999 Total	10	165	32	2	8	2	(s)	6	50	729	955
2000 Total	9	173	36	2	9	3	(s)	7	57	777	1,016
2001 Total	9	164	37	2	8	3	(s)	6	56	792	1,022
2002 Total	9	171	32	1	8	3	(s)	6	51	789	1,020
2003 Total	8	173	35	1	9	4	(s)	9	59	789	1,028
2004 Total	10	170	34	1	9	3	(s)	10	58	809	1,046
2005 Total	9	163	33	2	8	3	(s)	9	54	835	1,062
2006 Total	6	154	29	1	7	3	(s)	6	47	830	1,037
2007 Total	7	164	28	1	7	4	(s)	6	46	855	1,072
2008 January	1	26	4	(s)	1	(s)	(s)	1	6	70	103
February	1	25	4	(s)	1	(s)	(s)	1	6	65	96
March	1	21	3	(s)	1	(s)	(s)	1	5	64	90
April	(s)	14	2	(s)	1	(s)	(s)	(s)	4	63	81
May	(s)	10	2	(s)	1	(s)	0	(s)	3	67	81
June	1	7	2	(s)	1	(s)	0	(s)	3	76	86
July	(s)	7	2	(s)	1	(s)	0	(s)	3	82	92
August	(s)	7	1	(s)	1	(s)	0	(s)	3	79	89
September	(s)	7	1	(s)	1	(s)	(s)	(s)	3	72	82
October	1	10	2	(s)	1	(s)	(s)	(s)	3	70	83
November	1	15	2	(s)	1	(s)	(s)	(s)	4	66	85
December	1	23	3	(s)	1	(s)	(s)	1	5	68	97
Total	7	170	27	(s)	9	3	(s)	6	46	843	1,066
2009 January	1	28	3	(s)	1	(s)	(s)	1	5	70	103
February	1	23	3	(s)	1	(s)	(s)	1	4	59	86
March	1	19	3	(s)	1	(s)	(s)	1	4	61	85
April	(s)	13	2	(s)	1	(s)	0	(s)	3	58	76
May	(s)	9	1	(s)	1	(s)	0	(s)	3	63	75
June	(s)	7	1	(s)	1	(s)	0	(s)	2	71	81
July	(s)	7	2	(s)	1	(s)	0	(s)	3	74	85
August	(s)	7	2	(s)	1	(s)	(s)	(s)	3	77	87
September	(s)	7	2	(s)	1	(s)	(s)	(s)	3	67	78
October	(s)	11	2	(s)	1	(s)	0	(s)	3	66	80
November	1	14	2	(s)	1	(s)	(s)	(s)	3	61	79
December	1	23	3	(s)	1	(s)	(s)	1	5	69	98
Total	6	169	25	(s)	10	3	(s)	5	43	796	1,014
2010 January	1	28	3	(s)	1	(s)	(s)	1	4	67	100
February	1	25	2	(s)	1	(s)	(s)	(s)	4	61	90
2-Month Total	1	53	5	(s)	2	(s)	(s)	1	8	127	190
2009 2-Month Total	1	51	6	(s)	2	(s)	(s)	1	10	128	190
2008 2-Month Total	1	51	7	(s)	2	1	(s)	2	11	135	199

^a Metric tons of carbon dioxide can be converted to metric tons of carbon equivalent by multiplying by 12/44.

^b Natural gas, excluding supplemental gaseous fuels.

^c Distillate fuel oil, excluding biodiesel.

^d Liquefied petroleum gases.

^e Finished motor gasoline, excluding fuel ethanol.

^f Emissions from energy consumption (for electricity and a small amount of useful thermal output) in the electric power sector are allocated to the end-use sectors in proportion to each sector's share of total electricity retail sales. See Tables 7.6 and 12.6.

R=Revised. NA=Not available. (s)=Less than 0.5 million metric tons.

Notes: • Data are estimates. See "Section 12 Methodology and Sources" at end of section. • See "Carbon Dioxide" in Glossary. • See Note, "Emissions of Carbon Dioxide and Other Greenhouse Gases," 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: See <http://www.eia.doe.gov/emeu/mer/environ.html> for all available data beginning in 1973.

Sources: See end of section.

Table 12.4 Carbon Dioxide Emissions From Energy Consumption: Industrial Sector
(Million Metric Tons of Carbon Dioxide^a)

	Coal	Coal Coke Net Imports	Natural Gas ^b	Petroleum									Retail Elec- tricity ^g	Total
				Distillate Fuel Oil ^c	Kero- sene	LPG ^d	Lubri- cants	Motor Gasoline ^e	Petroleum Coke	Residual Fuel Oil	Other ^f	Total		
1973 Total	371	-1	538	106	11	44	7	18	49	144	100	480	515	1,903
1975 Total	336	2	442	97	9	40	6	16	48	117	97	429	490	1,697
1980 Total	289	-4	431	96	13	62	7	11	45	105	142	481	601	1,798
1985 Total	256	-2	360	81	3	60	6	15	54	57	93	370	583	1,567
1990 Total	257	1	432	84	1	41	7	13	64	31	127	367	633	1,690
1995 Total	231	7	490	82	1	47	7	14	67	24	114	357	655	1,740
1996 Total	226	3	506	86	1	48	6	14	70	24	132	383	673	1,792
1997 Total	223	5	506	88	1	50	7	15	68	21	138	388	690	1,812
1998 Total	218	8	495	88	2	41	7	14	77	16	125	370	701	1,792
1999 Total	207	7	474	86	1	51	7	11	81	14	130	381	699	1,768
2000 Total	210	7	481	87	1	59	7	11	74	17	117	373	713	1,785
2001 Total	204	3	439	95	2	51	6	21	77	14	132	398	663	1,707
2002 Total	188	7	449	88	1	57	6	22	76	13	127	390	649	1,683
2003 Total	190	6	430	83	2	52	6	23	76	15	140	397	666	1,689
2004 Total	191	16	432	88	2	58	6	26	82	17	142	421	669	1,728
2005 Total	182	5	398	92	3	54	6	25	80	20	141	419	667	1,671
2006 Total	178	7	394	92	2	58	6	26	82	16	150	432	646	1,658
2007 Total	174	3	407	92	1	57	6	21	80	13	148	417	658	1,658
2008 January	14	(s)	39	10	(s)	5	(s)	1	7	1	12	38	54	145
February	14	(s)	37	10	(s)	5	(s)	1	5	1	12	34	51	136
March	14	1	37	10	(s)	4	1	1	7	1	10	34	52	138
April	14	1	34	9	(s)	3	1	1	7	1	11	32	52	133
May	14	(s)	33	8	(s)	3	1	1	6	1	11	32	55	135
June	14	1	32	5	(s)	3	(s)	1	6	1	10	28	55	130
July	14	1	33	5	(s)	4	(s)	1	8	1	9	28	56	132
August	14	(s)	33	5	(s)	4	1	1	7	1	9	26	56	130
September	14	(s)	29	6	(s)	3	(s)	1	4	1	10	26	52	121
October	15	(s)	33	10	(s)	4	1	1	6	1	12	36	53	136
November	13	(s)	33	8	(s)	4	(s)	1	6	1	12	32	51	130
December	12	(s)	34	5	(s)	4	(s)	1	7	1	12	33	48	127
Total	167	5	407	92	(s)	45	6	17	76	13	130	378	637	1,594
2009 January	12	(s)	35	12	(s)	5	(s)	1	6	1	11	36	45	128
February	12	(s)	32	9	(s)	4	(s)	1	5	1	10	30	40	114
March	12	(s)	33	8	(s)	4	(s)	1	6	1	8	29	41	115
April	10	(s)	31	5	(s)	3	(s)	1	7	1	8	26	41	108
May	10	(s)	30	6	(s)	3	(s)	1	7	1	8	27	43	109
June	10	(s)	29	6	(s)	2	(s)	1	7	1	7	26	44	109
July	10	(s)	30	5	(s)	3	(s)	1	5	1	11	27	45	112
August	10	(s)	31	4	(s)	3	1	1	6	1	9	24	48	114
September	11	(s)	30	5	(s)	3	(s)	1	6	1	10	27	44	111
October	11	(s)	^R 32	8	(s)	4	(s)	1	5	1	9	28	46	118
November	11	(s)	33	7	(s)	5	(s)	1	5	1	8	27	45	116
December	11	(s)	36	9	(s)	5	(s)	1	5	1	9	31	47	126
Total	130	-3	^R 383	84	(s)	43	5	17	70	12	108	339	531	1,381
2010 January	^R 12	(s)	38	9	(s)	5	(s)	1	3	1	10	30	44	^R 124
February	13	(s)	35	9	(s)	4	(s)	1	4	1	10	30	42	120
2-Month Total	25	(s)	73	18	(s)	10	1	3	7	2	19	60	87	244
2009 2-Month Total	23	(s)	67	20	(s)	8	1	3	11	2	21	67	85	242
2008 2-Month Total	28	1	76	20	(s)	10	1	3	12	2	24	72	105	282

^a Metric tons of carbon dioxide can be converted to metric tons of carbon equivalent by multiplying by 12/44.

^b Natural gas, excluding supplemental gaseous fuels.

^c Distillate fuel oil, excluding biodiesel.

^d Liquefied petroleum gases.

^e Finished motor gasoline, excluding fuel ethanol.

^f Aviation gasoline blending components, crude oil, motor gasoline blending components, pentanes plus, petrochemical feedstocks, special naphthas, still gas, unfinished oils, waxes, and miscellaneous petroleum products.

^g Emissions from energy consumption (for electricity and a small amount of useful thermal output) in the electric power sector are allocated to the end-use sectors in proportion to each sector's share of total electricity retail sales. See

Tables 7.6 and 12.6.

R=Revised. (s)=Less than 0.5 million metric tons and greater than -0.5 million metric tons.

Notes: • Data are estimates. See "Section 12 Methodology and Sources" at end of section. • See "Carbon Dioxide" in Glossary. • See Note, "Emissions of Carbon Dioxide and Other Greenhouse Gases," 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: See <http://www.eia.doe.gov/emeu/mer/environ.html> for all available data beginning in 1973.

Sources: See end of section.

Table 12.5 Carbon Dioxide Emissions From Energy Consumption: Transportation Sector
(Million Metric Tons of Carbon Dioxide^a)

	Coal	Natural Gas ^b	Petroleum							Retail Electricity ^f	Total	
			Aviation Gasoline	Distillate Fuel Oil ^c	Jet Fuel	LPG ^d	Lubricants	Motor Gasoline ^e	Residual Fuel Oil			Total
1973 Total	(s)	39	6	163	152	3	6	886	57	1,273	2	1,315
1975 Total	(s)	32	5	155	145	3	6	889	56	1,258	2	1,291
1980 Total	(^g)	34	4	204	155	1	6	881	110	1,363	2	1,400
1985 Total	(^g)	28	3	232	178	2	6	908	62	1,391	3	1,421
1990 Total	(^g)	36	3	268	223	1	7	966	80	1,548	3	1,587
1995 Total	(^g)	38	3	307	222	1	6	1,030	72	1,640	3	1,682
1996 Total	(^g)	39	3	327	232	1	6	1,047	67	1,683	3	1,725
1997 Total	(^g)	41	3	342	234	1	6	1,057	56	1,699	3	1,744
1998 Total	(^g)	35	2	352	238	1	7	1,088	53	1,741	3	1,780
1999 Total	(^g)	36	3	366	245	1	7	1,115	52	1,789	3	1,828
2000 Total	(^g)	36	3	378	254	1	7	1,122	70	1,833	4	1,873
2001 Total	(^g)	35	2	387	243	1	6	1,127	46	1,813	4	1,851
2002 Total	(^g)	37	2	394	237	1	6	1,156	53	1,850	4	1,891
2003 Total	(^g)	33	2	414	231	1	6	1,160	45	1,859	4	1,897
2004 Total	(^g)	32	2	434	240	1	6	1,181	58	1,922	5	1,959
2005 Total	(^g)	33	2	444	246	2	6	1,184	66	1,951	5	1,989
2006 Total	(^g)	33	2	469	240	2	5	1,187	71	1,976	5	2,014
2007 Total	(^g)	35	2	472	238	1	6	1,187	78	1,985	5	2,025
2008 January	(^g)	4	(s)	34	20	(s)	(s)	95	7	156	(s)	161
February	(^g)	4	(s)	32	18	(s)	(s)	89	5	145	(s)	150
March	(^g)	4	(s)	37	19	(s)	(s)	98	6	161	(s)	165
April	(^g)	3	(s)	37	20	(s)	(s)	95	7	160	(s)	163
May	(^g)	2	(s)	39	20	(s)	(s)	100	7	166	(s)	169
June	(^g)	3	(s)	38	20	(s)	(s)	95	6	159	(s)	162
July	(^g)	3	(s)	39	20	(s)	(s)	98	7	164	(s)	167
August	(^g)	3	(s)	39	20	(s)	1	98	5	163	(s)	166
September	(^g)	2	(s)	37	18	(s)	(s)	88	4	147	(s)	150
October	(^g)	3	(s)	40	18	(s)	(s)	96	6	161	(s)	164
November	(^g)	3	(s)	36	17	(s)	(s)	92	5	151	(s)	154
December	(^g)	4	(s)	35	17	(s)	(s)	95	7	155	(s)	160
Total	(^g)	37	2	442	226	2	5	1,139	72	1,889	5	1,930
2009 January	(^g)	4	(s)	32	17	(s)	(s)	93	6	149	(s)	153
February	(^g)	4	(s)	30	15	(s)	(s)	86	4	135	(s)	139
March	(^g)	3	(s)	33	18	(s)	(s)	95	6	153	(s)	157
April	(^g)	3	(s)	33	17	(s)	(s)	93	7	151	(s)	154
May	(^g)	2	(s)	35	17	(s)	(s)	97	5	154	(s)	157
June	(^g)	2	(s)	35	17	(s)	(s)	95	6	154	(s)	157
July	(^g)	3	(s)	36	19	(s)	(s)	99	3	158	(s)	161
August	(^g)	3	(s)	36	18	(s)	(s)	99	5	158	(s)	161
September	(^g)	3	(s)	33	17	(s)	(s)	92	3	146	(s)	149
October	(^g)	3	(s)	36	17	(s)	(s)	95	5	154	(s)	157
November	(^g)	3	(s)	33	16	(s)	(s)	91	4	145	(s)	148
December	(^g)	4	(s)	34	17	(s)	(s)	95	6	152	(s)	157
Total	(^g)	36	2	405	205	2	5	1,130	62	1,810	5	1,851
2010 January	(^g)	4	(s)	31	17	(s)	(s)	90	6	145	(s)	150
February	(^g)	4	(s)	30	15	(s)	(s)	83	5	133	(s)	138
2-Month Total	(^g)	8	(s)	61	32	(s)	1	173	11	278	1	288
2009 2-Month Total	(^g)	8	(s)	62	32	(s)	1	179	10	284	1	293
2008 2-Month Total	(^g)	8	(s)	66	38	(s)	1	185	11	301	1	311

^a Metric tons of carbon dioxide can be converted to metric tons of carbon equivalent by multiplying by 12/44.

^b Natural gas, excluding supplemental gaseous fuels.

^c Distillate fuel oil, excluding biodiesel.

^d Liquefied petroleum gases.

^e Finished motor gasoline, excluding fuel ethanol.

^f Emissions from energy consumption (for electricity and a small amount of useful thermal output) in the electric power sector are allocated to the end-use sectors in proportion to each sector's share of total electricity retail sales. See Tables 7.6 and 12.6.

^g Beginning in 1978, the small amounts of coal consumed for transportation are

reported as industrial sector consumption.

R=Revised. (s)=Less than 0.5 million metric tons.

Notes: • Data are estimates. See "Section 12 Methodology and Sources" at end of section. • See "Carbon Dioxide" in Glossary. • See Note, "Emissions of Carbon Dioxide and Other Greenhouse Gases," 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: See <http://www.eia.doe.gov/emeu/mer/environ.html> for all available data beginning in 1973.

Sources: See end of section.

Table 12.6 Carbon Dioxide Emissions From Energy Consumption: Electric Power Sector
(Million Metric Tons of Carbon Dioxide^a)

	Coal	Natural Gas ^b	Petroleum				Geo-thermal	Non-Biomass Waste ^d	Total
			Distillate Fuel Oil ^c	Petroleum Coke	Residual Fuel Oil	Total			
1973 Total	812	199	20	2	254	276	NA	NA	1,286
1975 Total	824	172	17	(s)	231	248	NA	NA	1,244
1980 Total	1,137	200	12	1	194	207	NA	NA	1,544
1985 Total	1,367	166	6	1	79	86	NA	NA	1,619
1990 Total	1,531	176	7	3	92	102	(s)	6	1,815
1995 Total	1,649	228	8	8	45	61	(s)	10	1,948
1996 Total	1,740	205	8	8	50	66	(s)	10	2,020
1997 Total	1,785	219	8	10	56	75	(s)	10	2,090
1998 Total	1,815	248	10	13	82	105	(s)	10	2,178
1999 Total	1,821	260	10	11	76	97	(s)	10	2,189
2000 Total	1,911	281	13	10	69	91	(s)	10	2,294
2001 Total	1,856	290	12	11	79	102	(s)	11	2,259
2002 Total	1,872	306	9	18	52	79	(s)	13	2,270
2003 Total	1,911	278	12	18	69	98	(s)	11	2,299
2004 Total	1,923	297	8	23	69	100	(s)	11	2,331
2005 Total	1,964	319	8	25	69	102	(s)	11	2,397
2006 Total	1,938	338	5	22	28	56	(s)	11	2,343
2007 Total	1,971	372	7	17	31	55	(s)	11	2,409
2008 January	176	29	1	1	2	4	(s)	1	210
February	162	24	1	1	1	3	(s)	1	190
March	155	25	(s)	1	1	3	(s)	1	184
April	143	26	(s)	1	1	3	(s)	1	173
May	151	26	(s)	1	1	3	(s)	1	181
June	167	36	1	1	2	4	(s)	1	208
July	183	42	(s)	1	2	4	(s)	1	230
August	178	41	(s)	1	2	3	(s)	1	224
September	159	33	(s)	1	2	4	(s)	1	197
October	149	30	(s)	1	1	3	(s)	1	183
November	151	25	(s)	1	1	3	(s)	1	180
December	167	26	1	1	2	4	(s)	1	197
Total	1,943	362	5	16	19	40	(s)	11	2,357
2009 January	168	26	1	1	3	5	(s)	1	200
February	138	24	(s)	1	1	3	(s)	1	166
March	133	27	1	1	1	3	(s)	1	165
April	124	25	(s)	1	1	2	(s)	1	152
May	130	28	(s)	1	1	3	(s)	1	162
June	146	35	(s)	1	1	3	(s)	1	185
July	156	42	(s)	1	1	3	(s)	1	203
August	161	46	(s)	1	2	3	(s)	1	210
September	137	37	(s)	1	1	3	(s)	1	177
October	139	29	(s)	1	1	2	(s)	1	171
November	136	25	(s)	1	1	2	(s)	1	163
December	164	28	(s)	1	1	2	(s)	1	195
Total	1,733	373	5	14	14	34	(s)	11	2,151
2010 January	168	29	1	1	1	4	(s)	1	202
February	148	26	(s)	1	1	2	(s)	1	177
2-Month Total	315	55	1	3	2	6	(s)	2	379
2009 2-Month Total	306	51	1	2	4	8	(s)	2	366
2008 2-Month Total	338	53	1	3	3	7	(s)	2	400

^a Metric tons of carbon dioxide can be converted to metric tons of carbon equivalent by multiplying by 12/44.

^b Natural gas, excluding supplemental gaseous fuels.

^c Distillate fuel oil, excluding biodiesel.

^d Municipal solid waste from non-biogenic sources, and tire-derived fuels.

R=Revised. NA=Not available. (s)=Less than 0.5 million metric tons.

Notes: • Data are estimates. See "Section 12 Methodology and Sources" at

end of section. • See "Carbon Dioxide" in Glossary. • See Note, "Emissions of Carbon Dioxide and Other Greenhouse Gases," 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: See <http://www.eia.doe.gov/emeu/mer/environ.html> for all available data beginning in 1973.

Sources: See end of section.

Environment

Note. Emissions of Carbon Dioxide and Other Greenhouse Gases. Greenhouse gases are those gases—such as water vapor, carbon dioxide (CO₂), methane, nitrous oxide, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride—that are transparent to solar (short-wave) radiation but opaque to long-wave (infrared) radiation, thus preventing long-wave radiant energy from leaving Earth's atmosphere. The net effect is a trapping of absorbed radiation and a tendency to warm the planet's surface.

Energy-related carbon dioxide emissions account for about 98 percent of U.S. CO₂ emissions. The vast majority of CO₂ emissions come from fossil fuel combustion, with smaller amounts from the nonfuel use of fossil fuels, as well as from electricity generation using geothermal energy and non-biomass waste. Other sources of CO₂ emissions include industrial processes, such as cement and limestone production. Data in the U.S. Energy Information Administration's (EIA) *Monthly Energy Review (MER)*, Tables 12.1-12.6, are estimates for U.S. CO₂ emissions from energy consumption.

For annual U.S. estimates for emissions of CO₂ from all sources, as well as for emissions of other greenhouse gases, see EIA's *Emissions of Greenhouse Gases Report* at <http://www.eia.doe.gov/oiaf/1605/ggrpt/carbon.html>.

Section 12 Methodology and Sources

To estimate carbon dioxide emissions from energy consumption for the *Monthly Energy Review (MER)*, Tables 12.1-12.6, the U.S. Energy Information Administration (EIA) uses the following methodology and sources:

Step 1. Determine Fossil Fuel Consumption

Coal—Coal sectoral (residential, commercial, coke plants, other industrial, transportation, electric power) consumption data in thousand short tons are from MER Table 6.2. Coal sectoral consumption data are converted to trillion Btu by multiplying by the coal heat content factors in MER Table A5.

Coal Coke Net Imports—Coal coke net imports data in trillion Btu are derived from coal coke imports and exports data in MER Tables 1.4a and 1.4b.

Natural Gas (excluding supplemental gaseous fuels)—Natural gas sectoral consumption data in trillion Btu are from MER Tables 2.2-2.6.

Petroleum—Total and sectoral consumption (product supplied) data in thousand barrels per day for asphalt and road oil, aviation gasoline, distillate fuel oil, jet fuel, kerosene, liquefied petroleum gases (LPG), lubricants, motor

gasoline, petroleum coke, and residual fuel oil are from MER Tables 3.5 and 3.7a-c. For the component products of LPG (ethane/ethylene, propane/propylene, normal butane/butylene, and isobutane/isobutylene) and “other petroleum” (aviation gasoline blending components, crude oil, motor gasoline blending components, naphthas for petrochemical feedstock use, other oils for petrochemical feedstock use, pentanes plus, special naphthas, still gas, unfinished oils, waxes, and miscellaneous petroleum products), consumption (product supplied) data in thousand barrels per day are from EIA's *Petroleum Supply Annual (PSA)*, *Petroleum Supply Monthly (PSM)*, and earlier publications (see sources for MER Table 3.5). Petroleum consumption data by product are converted to trillion Btu by multiplying by the petroleum heat content factors in MER Table A1 (Table A3 for LPG and motor gasoline).

Step 2. Remove Biofuels From Petroleum

Distillate Fuel Oil—Beginning in 2009, the distillate fuel oil data (for total and transportation sector) in Step 1 include biodiesel, a non-fossil renewable fuel. To remove the biodiesel portion from distillate fuel oil, data in thousand barrels per day for refinery and blender net inputs of renewable diesel fuel (from the PSA/PSM) are converted to trillion Btu by multiplying by the biodiesel heat content factor in MER Table A3, and then subtracted from the distillate fuel oil consumption values.

Motor Gasoline—Beginning in 1993, the motor gasoline data (for total, commercial sector, industrial sector, and transportation sector) in Step 1 include fuel ethanol, a non-fossil renewable fuel. To remove the fuel ethanol portion from motor gasoline, data in trillion Btu for fuel ethanol consumption (from MER Tables 10.2a, 10.2b, and 10.3) are subtracted from the motor gasoline consumption values. (Note that about 2 percent of fuel ethanol is fossil-based petroleum denaturant, to make the fuel ethanol undrinkable. For 1993-2008, petroleum denaturant is double counted in the PSA product supplied statistics, in both the original product category—e.g., pentanes plus—and also in the finished motor gasoline category; for this time period for MER Section 12, petroleum denaturant is removed along with the fuel ethanol from motor gasoline, but left in the original product. Beginning in 2009, petroleum denaturant is counted only in the PSA/PSM product supplied statistics for motor gasoline; for this time period for MER Section 12, petroleum denaturant is left in motor gasoline.)

Step 3. Remove Carbon Sequestered by Nonfuel Use

The following fuels have industrial nonfuel uses as chemical feedstocks and other products: coal, natural gas, asphalt and road oil, distillate fuel oil, liquefied petroleum gases (ethane/ethylene, propane/propylene, normal butane/butylene, and isobutane/isobutylene), lubricants (which have industrial and transportation nonfuel uses), naphthas for petrochemical feedstock use, other oils for petrochemical feedstock use, pentanes plus, petroleum coke, residual fuel

oil, special naphthas, still gas, waxes, and miscellaneous petroleum products. In the nonfuel use of these fuels, some of the carbon is sequestered, and is thus subtracted from the fuel consumption values in Steps 1 and 2.

Estimates of annual nonfuel use and associated carbon sequestration are from EIA's Office of Integrated Forecasting and Analysis—for details, see "Documentation for *Emissions of Greenhouse Gases in the United States 2006*" at [http://www.eia.doe.gov/oiaf/1605/ggrpt/documentation/pdf/0638\(2006\).pdf](http://www.eia.doe.gov/oiaf/1605/ggrpt/documentation/pdf/0638(2006).pdf).

To obtain monthly estimates of nonfuel use and associated carbon sequestration, monthly patterns for industrial consumption and product supplied data series are used. For coal nonfuel use, the monthly pattern for coke plants coal consumption from MER Table 6.2 is used. For natural gas, the monthly pattern for other industrial non-CHP natural gas consumption from MER Table 4.3 is used. For distillate fuel oil, petroleum coke, and residual fuel oil, the monthly patterns for industrial consumption from MER Table 3.7b are used. For the other petroleum products, the monthly patterns for product supplied from the PSA and PSM are used.

Step 4. Determine Carbon Dioxide Emissions From Energy Consumption

Carbon dioxide emissions data in million metric tons for fossil fuels are calculated by multiplying consumption values in trillion Btu from Steps 1 and 2 (minus the carbon sequestered in nonfuel use in Step 3) by the CO₂ emissions factors at http://www.eia.doe.gov/oiaf/1605/ggrpt/excel/CO2_coeff.xls. For 2007-2010, the 2006 factors are used.

Coal—CO₂ emissions for coal are calculated for each sector (residential, commercial, coke plants, other industrial, transportation, electric power). Total coal emissions are the sum of the sectoral coal emissions.

Coal Coke Net Imports—CO₂ emissions for coal coke net imports are calculated using a coal coke factor of 114.14 million metric tons CO₂ per quadrillion Btu.

Natural Gas—CO₂ emissions for natural gas are calculated for each sector (residential, commercial, industrial, transportation, electric power). Total natural gas emissions are the sum of the sectoral natural gas emissions.

Petroleum—CO₂ emissions are calculated for each petroleum product. Total petroleum emissions are the sum of the product emissions. Total LPG emissions are the sum of the emissions for the component products (ethane/ethylene, propane/propylene, normal butane/butylene, and isobutane/isobutylene); residential, commercial, and transportation sector LPG emissions are estimated by multiplying consumption values in trillion Btu from MER Tables 3.8a and 3.8c by the propane emissions factor; industrial sector LPG emissions are estimated as total LPG emissions minus emissions by the other sectors. Residual fuel oil emissions are calculated using the "Residual Fuel" (not the "Residual Fuel-Electric Utility") factor.

Geothermal and Non-Biomass Waste—Annual 1989-2007 CO₂ emissions data for geothermal and non-biomass waste are from EIA's *Annual Energy Review (AER)*, Table 12.7b. Monthly estimates are created by dividing the annual data by the number of days in the year and then multiplying by the number of days in the month. (Annual estimates for the current year are set equal to those of the previous year.)

British Thermal Unit 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 higher or upper) energy content of the fuels. Gross heat content rates are applied in all Btu calculations for the *Monthly Energy Review* and are commonly used in energy calculations in the United States; net (or lower) heat content rates are typically used in European energy calculations. The difference between the two rates is the amount of energy that is consumed to vaporize water that is created during the combustion process. Generally, the difference ranges from 2 percent to 10 percent, depending on the specific fuel and its hydrogen content. Some fuels, such as unseasoned wood, can be more than 40 percent different in their gross

and net heat content rates. See “Heat Content” and “British Thermal Unit (Btu)” in the Glossary for more information.

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

In general, the annual thermal conversion factors presented in Tables A2 through A6 are computed from final annual data or from the best available data and labeled “preliminary.” Often, the previous year’s factor is used as a preliminary value until data become available to calculate the factor appropriate to the year. The source of each factor is described in the section entitled “Thermal Conversion Factor Source Documentation,” which follows Table A6 in this appendix.

Table A1. Approximate Heat Content of Petroleum Products
(Million Btu per Barrel)

Petroleum Product	Heat Content	Petroleum Product	Heat Content
Asphalt	6.636	Pentanes Plus	4.620
Aviation Gasoline	5.048	Petrochemical Feedstocks	
Butane	4.326	Naphtha Less Than 401°F	5.248
Butane-Propane Mixture ^a	4.130	Other Oils Equal to or Greater Than 401°F	5.825
Distillate Fuel Oil ^b	5.825	Still Gas	6.000
Ethane	3.082	Petroleum Coke	6.024
Ethane-Propane Mixture ^c	3.308	Plant Condensate	5.418
Isobutane	3.974	Propane	3.836
Jet Fuel, Kerosene Type	5.670	Residual Fuel Oil	6.287
Jet Fuel, Naphtha Type	5.355	Road Oil	6.636
Kerosene	5.670	Special Naphthas	5.248
Lubricants	6.065	Still Gas	6.000
Motor Gasoline ^d		Unfinished Oils	5.825
Conventional	5.253	Unfractionated Stream	5.418
Reformulated	5.150	Waxes	5.537
Oxygenated	5.150	Miscellaneous	5.796
Natural Gasoline and Isopentane	4.620		

^a 60 percent butane and 40 percent propane.

^b Does not include biodiesel. See Table A3 for biodiesel heat contents.

^c 70 percent ethane and 30 percent propane.

^d See Table A3 for motor gasoline weighted heat contents beginning in 1994, and for fuel ethanol heat contents.

Note: The values in this table are for gross heat contents. See “Heat Content” in Glossary.

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

Sources: See “Thermal Conversion Factor Source Documentation,” which follows Table A6.

Table A2. Approximate Heat Content of Petroleum Production, Imports, and Exports
(Million Btu per Barrel)

	Production		Imports			Exports		
	Crude Oil ^a	Natural Gas Plant Liquids	Crude Oil ^a	Petroleum Products	Total	Crude Oil ^a	Petroleum Products	Total
1973	5.800	4.049	5.817	5.983	5.897	5.800	5.752	5.752
1974	5.800	4.011	5.827	5.959	5.884	5.800	5.773	5.774
1975	5.800	3.984	5.821	5.935	5.858	5.800	5.747	5.748
1976	5.800	3.964	5.808	5.980	5.856	5.800	5.743	5.745
1977	5.800	3.941	5.810	5.908	5.834	5.800	5.796	5.797
1978	5.800	3.925	5.802	5.955	5.839	5.800	5.814	5.808
1979	5.800	3.955	5.810	5.811	5.810	5.800	5.864	5.832
1980	5.800	3.914	5.812	5.748	5.796	5.800	5.841	5.820
1981	5.800	3.930	5.818	5.659	5.775	5.800	5.837	5.821
1982	5.800	3.872	5.826	5.664	5.775	5.800	5.829	5.820
1983	5.800	3.839	5.825	5.677	5.774	5.800	5.800	5.800
1984	5.800	3.812	5.823	5.613	5.745	5.800	5.867	5.850
1985	5.800	3.815	5.832	5.572	5.736	5.800	5.819	5.814
1986	5.800	3.797	5.903	5.624	5.808	5.800	5.839	5.832
1987	5.800	3.804	5.901	5.599	5.820	5.800	5.860	5.858
1988	5.800	3.800	5.900	5.618	5.820	5.800	5.842	5.840
1989	5.800	3.826	5.906	5.641	5.833	5.800	5.869	5.857
1990	5.800	3.822	5.934	5.614	5.849	5.800	5.838	5.833
1991	5.800	3.807	5.948	5.636	5.873	5.800	5.827	5.823
1992	5.800	3.804	5.953	5.623	5.877	5.800	5.774	5.777
1993	5.800	3.801	5.954	5.620	5.883	5.800	5.777	5.779
1994	5.800	3.794	5.950	5.534	5.861	5.800	5.777	5.779
1995	5.800	3.796	5.938	5.483	5.855	5.800	5.740	5.746
1996	5.800	3.777	5.947	5.468	5.847	5.800	5.728	5.736
1997	5.800	3.762	5.954	5.469	5.862	5.800	5.726	5.734
1998	5.800	3.769	5.953	5.462	5.861	5.800	5.710	5.720
1999	5.800	3.744	5.942	5.421	5.840	5.800	5.684	5.699
2000	5.800	3.733	5.959	5.432	5.849	5.800	5.651	5.658
2001	5.800	3.735	5.976	5.443	5.862	5.800	5.751	5.752
2002	5.800	3.729	5.971	5.451	5.863	5.800	5.687	5.688
2003	5.800	3.739	5.970	5.438	5.857	5.800	5.739	5.740
2004	5.800	3.724	5.981	5.475	5.863	5.800	5.753	5.754
2005	5.800	3.724	5.977	5.474	5.845	5.800	5.741	5.743
2006	5.800	3.712	5.980	5.454	5.842	5.800	5.723	5.724
2007	5.800	3.701	5.985	5.503	5.862	5.800	5.749	5.750
2008	5.800	3.706	5.990	5.479	5.866	5.800	5.762	5.762
2009 ^P	5.800	3.690	5.989	5.530	5.885	5.800	5.736	5.737
2010 ^E	5.800	3.690	5.989	5.530	5.885	5.800	5.736	5.737

^a Includes lease condensate.

R=Revised. P=Preliminary. E=Estimate.

Note: The values in this table are for gross heat contents. See "Heat Content" in Glossary.

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

Sources: See "Thermal Conversion Factor Source Documentation," which follows Table A6.

Table A3. Approximate Heat Content of Petroleum Consumption and Biofuels Production
(Million Btu per Barrel)

	Total Petroleum ^a Consumption by Sector						Liquefied Petroleum Gases Consumption ^f	Motor Gasoline Consumption ^g	Fuel Ethanol ^h	Fuel Ethanol Feed-stock Factor ⁱ	Biodiesel	Biodiesel Feed-stock Factor ^j
	Residential	Commercial ^b	Industrial ^b	Transportation ^{b,c}	Electric Power ^{d,e}	Total ^{b,c}						
1973	5.233	5.677	5.569	5.395	6.245	5.515	3.746	5.253	NA	NA	NA	NA
1974	5.223	5.668	5.538	5.394	6.238	5.504	3.730	5.253	NA	NA	NA	NA
1975	5.219	5.631	5.527	5.392	6.250	5.494	3.715	5.253	NA	NA	NA	NA
1976	5.243	5.655	5.536	5.395	6.251	5.504	3.711	5.253	NA	NA	NA	NA
1977	5.242	5.661	5.554	5.400	6.249	5.518	3.677	5.253	NA	NA	NA	NA
1978	5.242	5.643	5.554	5.404	6.251	5.519	3.669	5.253	NA	NA	NA	NA
1979	5.330	5.701	5.419	5.428	6.258	5.494	3.680	5.253	NA	NA	NA	NA
1980	5.280	5.735	5.374	5.440	6.254	5.479	3.674	5.253	3.563	6.586	NA	NA
1981	5.231	5.671	5.312	5.432	6.258	5.448	3.643	5.253	3.563	6.562	NA	NA
1982	5.205	5.673	5.263	5.422	6.258	5.415	3.615	5.253	3.563	6.539	NA	NA
1983	5.064	5.565	5.275	5.415	6.255	5.406	3.614	5.253	3.563	6.515	NA	NA
1984	5.247	5.634	5.222	5.418	6.251	5.395	3.599	5.253	3.563	6.492	NA	NA
1985	5.198	5.568	5.215	5.422	6.247	5.387	3.603	5.253	3.563	6.469	NA	NA
1986	5.214	5.609	5.283	5.425	6.257	5.418	3.640	5.253	3.563	6.446	NA	NA
1987	5.188	5.571	5.248	5.429	6.249	5.403	3.659	5.253	3.563	6.423	NA	NA
1988	5.206	5.573	5.241	5.433	6.250	5.410	3.652	5.253	3.563	6.400	NA	NA
1989	5.146	5.525	5.234	5.437	^d 6.240	5.410	3.683	5.253	3.563	6.377	NA	NA
1990	5.073	5.521	5.270	5.442	6.244	5.411	3.625	5.253	3.563	6.355	NA	NA
1991	5.014	5.491	5.186	5.440	6.246	5.384	3.614	5.253	3.563	6.332	NA	NA
1992	5.050	5.477	5.185	5.442	6.238	5.378	3.624	5.253	3.563	6.309	NA	NA
1993	5.019	^b 5.461	^b 5.196	^b 5.436	6.230	^b 5.379	3.606	5.253	3.563	6.287	NA	NA
1994	5.026	5.477	5.166	5.426	6.213	5.361	3.635	^f 5.230	3.563	6.264	NA	NA
1995	4.982	5.435	5.137	5.417	6.188	5.341	3.623	5.215	3.563	6.242	NA	NA
1996	4.906	5.384	5.133	5.420	6.195	5.336	3.613	5.216	3.563	6.220	NA	NA
1997	4.897	5.341	5.138	5.416	6.199	5.336	3.616	5.213	3.563	6.198	NA	NA
1998	4.882	5.313	5.155	5.413	6.210	5.349	3.614	5.212	3.563	6.176	NA	NA
1999	4.801	5.231	5.113	5.413	6.205	5.328	3.616	5.211	3.563	6.167	NA	NA
2000	4.804	5.257	5.082	5.421	6.189	5.326	3.607	5.210	3.563	6.159	NA	NA
2001	4.838	5.270	5.164	5.412	6.199	5.345	3.614	5.210	3.563	6.151	5.359	5.433
2002	4.781	5.234	5.116	5.410	6.173	5.324	3.613	5.208	3.563	6.143	5.359	5.433
2003	4.812	5.253	5.161	5.408	6.182	5.340	3.629	5.207	3.563	6.116	5.359	5.433
2004	4.858	5.271	5.164	5.420	6.192	5.350	3.618	5.215	3.563	6.089	5.359	5.433
2005	4.818	5.312	5.200	5.426	6.188	5.365	3.620	5.218	3.563	6.063	5.359	5.433
2006	4.787	5.251	5.179	5.431	6.143	5.353	3.605	5.218	3.563	6.036	5.359	5.433
2007	4.731	5.235	5.146	5.433	6.151	5.346	3.591	5.219	3.563	6.009	5.359	5.433
2008	4.598	5.095	5.175	5.426	6.123	5.339	3.600	5.218	3.563	5.983	5.359	5.433
2009	^E 4.512	^E 5.015	^E 5.080	^c ^E 5.412	^F 6.105	^P 5.303	^P 3.553	^P 5.218	3.563	5.957	5.359	5.433
2010	^E 4.512	^E 5.015	^E 5.080	^E 5.412	^E 6.105	^E 5.303	^E 3.553	^E 5.218	^E 3.563	5.930	5.359	5.433

^a Petroleum products supplied, including natural gas plant liquids and crude oil burned directly as fuel. Quantity-weighted averages of the petroleum products included in each category are calculated by using heat content values shown in Table A1.

^b Beginning in 1993, includes fuel ethanol blended into motor gasoline.

^c Beginning in 2009, includes renewable diesel fuel (including biodiesel) blended into distillate fuel oil.

^d Electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public. Through 1988, data are for electric utilities only; beginning in 1989, data are for electric utilities and independent power producers.

^e Electric power sector factors are weighted average heat contents for distillate fuel oil, petroleum coke, and residual fuel oil; they exclude other liquids.

^f Quantity-weighted averages of the major components of liquefied petroleum gases are calculated by using heat content values shown in Table A1.

^g There is a discontinuity in this time series between 1993 and 1994; beginning in 1994, the single constant factor is replaced by a quantity-weighted factor—quantity-weighted averages of the major components of motor gasoline, including fuel ethanol, are calculated by using heat content values shown in Table A3.

^h Includes denaturant (petroleum added to ethanol to make it undrinkable). Fuel ethanol factors are weighted average heat contents for undenatured ethanol (3.539 million Btu per barrel), pentanes plus used as denaturant (4.620 million Btu per barrel), and conventional motor gasoline used as denaturant (5.253 million Btu per barrel). The factor for 2009 is used as the estimated factor for 1980-2008 and 2010.

ⁱ Corn input to the production of undenatured ethanol (million Btu corn per barrel undenatured ethanol), used as the factor to estimate total biomass inputs to the production of undenatured ethanol. Observed ethanol yields (gallons undenatured ethanol per bushel of corn) are 2.5 in 1980, 2.666 in 1998, 2.68 in 2002, and 2.764 in 2009; yields in other years are estimated. Corn is assumed to have a gross heat content of 0.392 million Btu per bushel. Undenatured ethanol is assumed to have a gross heat content of 3.539 million Btu per barrel.

^j Soybean oil input to the production of biodiesel (million Btu soybean oil per barrel biodiesel), used as the factor to estimate total biomass inputs to the production of biodiesel. It is assumed that 7.65 pounds of soybean oil are needed to produce one gallon of biodiesel, and 5.433 million Btu of soybean oil are needed to produce one barrel of biodiesel. Soybean oil is assumed to have a gross heat content of 16,909 Btu per pound, or 5.483 million Btu per barrel. Biodiesel is assumed to have a gross heat content of 17,253 Btu per pound, or 5.359 million Btu per barrel.

^P=Preliminary. ^E=Estimate. ^{NA}=Not available.

Note: The heat content values in this table are for gross heat contents. See "Heat Content" in Glossary. Web Page: http://www.eia.doe.gov/emeu/mer/append_a.html.

Sources: See "Thermal Conversion Factor Source Documentation," which follows Table A6.

Table A4. Approximate Heat Content of Natural Gas
(Btu per Cubic Foot)

	Production		Consumption ^a			Imports	Exports
	Marketed	Dry	End-Use Sectors ^b	Electric Power Sector ^c	Total		
1973	1,093	1,021	1,020	1,024	1,021	1,026	1,023
1974	1,097	1,024	1,024	1,022	1,024	1,027	1,016
1975	1,095	1,021	1,020	1,026	1,021	1,026	1,014
1976	1,093	1,020	1,019	1,023	1,020	1,025	1,013
1977	1,093	1,021	1,019	1,029	1,021	1,026	1,013
1978	1,088	1,019	1,016	1,034	1,019	1,030	1,013
1979	1,092	1,021	1,018	1,035	1,021	1,037	1,013
1980	1,098	1,026	1,024	1,035	1,026	1,022	1,013
1981	1,103	1,027	1,025	1,035	1,027	1,014	1,011
1982	1,107	1,028	1,026	1,036	1,028	1,018	1,011
1983	1,115	1,031	1,031	1,030	1,031	1,024	1,010
1984	1,109	1,031	1,030	1,035	1,031	1,005	1,010
1985	1,112	1,032	1,031	1,038	1,032	1,002	1,011
1986	1,110	1,030	1,029	1,034	1,030	997	1,008
1987	1,112	1,031	1,031	1,032	1,031	999	1,011
1988	1,109	1,029	1,029	1,028	1,029	1,002	1,018
1989	1,107	1,031	1,031	^c 1,028	1,031	1,004	1,019
1990	1,105	1,029	1,030	1,027	1,029	1,012	1,018
1991	1,108	1,030	1,031	1,025	1,030	1,014	1,022
1992	1,110	1,030	1,031	1,025	1,030	1,011	1,018
1993	1,106	1,027	1,028	1,025	1,027	1,020	1,016
1994	1,105	1,028	1,029	1,025	1,028	1,022	1,011
1995	1,106	1,026	1,027	1,021	1,026	1,021	1,011
1996	1,109	1,026	1,027	1,020	1,026	1,022	1,011
1997	1,107	1,026	1,027	1,020	1,026	1,023	1,011
1998	1,109	1,031	1,033	1,024	1,031	1,023	1,011
1999	1,107	1,027	1,028	1,022	1,027	1,022	1,006
2000	1,107	1,025	1,026	1,021	1,025	1,023	1,006
2001	1,105	1,028	1,029	1,026	1,028	1,023	1,010
2002	1,106	1,027	1,029	1,020	1,027	1,022	1,008
2003	1,106	1,028	1,029	1,025	1,028	1,025	1,009
2004	1,104	1,026	1,026	1,027	1,026	1,025	1,009
2005	1,104	1,028	1,028	1,028	1,028	1,025	1,009
2006	1,103	1,028	1,028	1,028	1,028	1,025	1,009
2007	1,104	1,029	1,030	1,027	1,029	1,025	1,009
2008	1,100	1,027	1,027	1,027	1,027	1,025	1,009
2009	^E 1,100	^E 1,026	^E 1,027	^P 1,025	^E 1,026	^E 1,025	^E 1,009
2010	^E 1,100	^E 1,026	^E 1,027	^E 1,025	^E 1,026	^E 1,025	^E 1,009

^a Consumption factors are for natural gas, plus a small amount of supplemental gaseous fuels.

^b Residential, commercial, industrial, and transportation sectors.

^c Electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public. Through 1988, data are for electric utilities only; beginning in 1989, data are for electric utilities and independent power producers.

P=Preliminary. E=Estimate.

Note: The values in this table are for gross heat contents. See "Heat Content" in Glossary.

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

Sources: See "Thermal Conversion Factor Source Documentation," which follows Table A6.

Table A5. Approximate Heat Content of Coal and Coal Coke
(Million Btu per Short Ton)

	Coal									Coal Coke
	Production ^a	Waste Coal Supplied ^b	Consumption					Imports	Exports	Imports and Exports
			Residential and Commercial Sectors	Industrial Sector		Electric Power Sector ^{d,e}	Total			
Coke Plants	Other ^c									
1973	23.376	NA	22.831	26.780	22.586	22.246	23.057	25.000	26.596	24.800
1974	23.072	NA	22.479	26.778	22.419	21.781	22.677	25.000	26.700	24.800
1975	22.897	NA	22.261	26.782	22.436	21.642	22.506	25.000	26.562	24.800
1976	22.855	NA	22.774	26.781	22.530	21.679	22.498	25.000	26.601	24.800
1977	22.597	NA	22.919	26.787	22.322	21.508	22.265	25.000	26.548	24.800
1978	22.248	NA	22.466	26.789	22.207	21.275	22.017	25.000	26.478	24.800
1979	22.454	NA	22.242	26.788	22.452	21.364	22.100	25.000	26.548	24.800
1980	22.415	NA	22.543	26.790	22.690	21.295	21.947	25.000	26.384	24.800
1981	22.308	NA	22.474	26.794	22.585	21.085	21.713	25.000	26.160	24.800
1982	22.239	NA	22.695	26.797	22.712	21.194	21.674	25.000	26.223	24.800
1983	22.052	NA	22.775	26.798	22.691	21.133	21.576	25.000	26.291	24.800
1984	22.010	NA	22.844	26.799	22.543	21.101	21.573	25.000	26.402	24.800
1985	21.870	NA	22.646	26.798	22.020	20.959	21.366	25.000	26.307	24.800
1986	21.913	NA	22.947	26.798	22.198	21.084	21.462	25.000	26.292	24.800
1987	21.922	NA	23.404	26.799	22.381	21.136	21.517	25.000	26.291	24.800
1988	21.823	NA	23.571	26.799	22.360	20.900	21.328	25.000	26.299	24.800
1989	21.765	^b 10.391	23.650	26.800	22.347	^d 20.898	21.307	25.000	26.160	24.800
1990	21.822	9.303	23.137	26.799	22.457	20.779	21.197	25.000	26.202	24.800
1991	21.681	10.758	23.114	26.799	22.460	20.730	21.120	25.000	26.188	24.800
1992	21.682	10.396	23.105	26.799	22.250	20.709	21.068	25.000	26.161	24.800
1993	21.418	10.638	22.994	26.800	22.123	20.677	21.010	25.000	26.335	24.800
1994	21.394	11.097	23.112	26.800	22.068	20.589	20.929	25.000	26.329	24.800
1995	21.326	11.722	23.118	26.800	21.950	20.543	20.880	25.000	26.180	24.800
1996	21.322	12.147	23.011	26.800	22.105	20.547	20.870	25.000	26.174	24.800
1997	21.296	12.158	22.494	26.800	22.172	20.518	20.830	25.000	26.251	24.800
1998	21.418	12.639	21.620	27.426	23.164	20.516	20.881	25.000	26.800	24.800
1999	21.070	12.552	23.880	27.426	22.489	20.490	20.818	25.000	26.081	24.800
2000	21.072	12.360	25.020	27.426	22.433	20.511	20.828	25.000	26.117	24.800
2001	^a 20.772	12.169	24.909	27.426	22.622	20.337	20.671	25.000	25.998	24.800
2002	20.673	12.165	22.962	27.426	22.562	20.238	20.541	25.000	26.062	24.800
2003	20.499	12.360	22.242	27.425	22.468	20.082	20.387	25.000	25.972	24.800
2004	20.424	12.266	22.324	27.426	22.473	19.980	20.290	25.000	26.108	24.800
2005	20.348	12.093	22.342	26.279	22.178	19.988	20.246	25.000	25.494	24.800
2006	20.310	12.080	22.066	26.271	22.050	19.931	20.181	25.000	25.453	24.800
2007	20.340	12.090	22.069	26.329	22.371	19.909	20.168	25.000	25.466	24.800
2008	20.208	12.121	21.887	26.281	22.348	19.713	19.977	25.000	25.399	24.800
2009 ^P	19.973	12.245	21.285	26.334	21.893	19.536	19.753	25.000	25.633	24.800
2010 ^E	19.973	12.245	21.285	26.334	21.893	19.536	19.753	25.000	25.633	24.800

^a Beginning in 2001, includes a small amount of refuse recovery (coal recaptured from a refuse mine, and cleaned to reduce the concentration of noncombustible materials).
^b Waste coal (including fine coal, coal obtained from a refuse bank or slurry dam, anthracite culm, bituminous gob, and lignite waste) consumed by the electric power and industrial sectors. Beginning in 1989, waste coal supplied is counted as a supply-side item to balance the same amount of waste coal included in "Consumption."
^c Includes transportation. Excludes coal synfuel plants.
^d Electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public. Through 1988, data are for electric utilities only; beginning in 1989, data are for electric utilities and independent power producers.
^e Electric power sector factors are for anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and, beginning in 1998, coal synfuel.
P=Preliminary. E=Estimate. NA=Not available.
Note: The values in this table are for gross heat contents. See "Heat Content" in Glossary.
Web Page: http://www.eia.doe.gov/emeu/mer/append_a.html.
Sources: See "Thermal Conversion Factor Source Documentation," which follows Table A6.

Table A6. Approximate Heat Rates for Electricity, and Heat Content of Electricity
(Btu per Kilowatthour)

	Approximate Heat Rates ^a for Electricity Net Generation			Heat Content ^f of Electricity ^g
	Fossil-Fueled Plants ^{b,c}	Nuclear Plants ^d	Geothermal Energy Plants ^e	
1973	10,389	10,903	21,674	3,412
1974	10,442	11,161	21,674	3,412
1975	10,406	11,013	21,611	3,412
1976	10,373	11,047	21,611	3,412
1977	10,435	10,769	21,611	3,412
1978	10,361	10,941	21,611	3,412
1979	10,353	10,879	21,545	3,412
1980	10,388	10,908	21,639	3,412
1981	10,453	11,030	21,639	3,412
1982	10,454	11,073	21,629	3,412
1983	10,520	10,905	21,290	3,412
1984	10,440	10,843	21,303	3,412
1985	10,447	10,622	21,263	3,412
1986	10,446	10,579	21,263	3,412
1987	10,419	10,442	21,263	3,412
1988	10,324	10,602	21,096	3,412
1989	10,432	10,583	21,096	3,412
1990	10,402	10,582	21,096	3,412
1991	10,436	10,484	20,997	3,412
1992	10,342	10,471	20,914	3,412
1993	10,309	10,504	20,914	3,412
1994	10,316	10,452	20,914	3,412
1995	10,312	10,507	20,914	3,412
1996	10,340	10,503	20,960	3,412
1997	10,213	10,494	20,960	3,412
1998	10,197	10,491	21,017	3,412
1999	10,226	10,450	21,017	3,412
2000	10,201	10,429	21,017	3,412
2001	^c 10,333	10,443	21,017	3,412
2002	10,173	10,442	21,017	3,412
2003	10,241	10,421	21,017	3,412
2004	10,022	10,427	21,017	3,412
2005	9,999	10,436	21,017	3,412
2006	9,919	10,436	21,017	3,412
2007	9,884	10,485	21,017	3,412
2008	9,854	10,453	21,017	3,412
2009	^E 9,854	^E 10,453	^E 21,017	3,412
2010	^E 9,854	^E 10,453	^E 21,017	3,412

^a The values in columns 1-3 of this table are for net heat rates. See "Heat Rate" in Glossary.

^b Used as the thermal conversion factor for hydro, solar/photovoltaic, and wind electricity net generation to approximate the quantity of fossil fuels replaced by these sources. Through 2000, also used as the thermal conversion factor for wood and waste electricity net generation at electric utilities; beginning in 2001, Btu data for wood and waste at electric utilities are available from surveys.

^c Through 2000, heat rates are for fossil-fueled steam-electric plants at electric utilities. Beginning in 2001, heat rates are for all fossil-fueled plants at electric utilities and electricity-only independent power producers.

^d Used as the thermal conversion factor for nuclear electricity net generation.

^e Used as the thermal conversion factor for geothermal electricity net generation.

^f See "Heat Content" in Glossary.

^g The value of 3,412 Btu per kilowatthour is a constant. It is used as the thermal conversion factor for electricity retail sales, and electricity imports and exports. E=Estimate.

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

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

Thermal Conversion Factor Source Documentation

Approximate Heat Content of Petroleum and Natural Gas Plant Liquids

Asphalt. The U.S. 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 thermal conversion factor of 5.048 million Btu per barrel as adopted by the Bureau of Mines from the Texas Eastern Transmission Corporation publication *Competition and Growth in American Energy Markets 1947–1985*, 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 as published 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 Production**.

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

Crude Oil 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.”

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 Values of Various Fuels, Adopted January 3, 1950.”

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

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

Isobutane. EIA adopted the Bureau of Mines thermal conversion factor of 3.974 million Btu per barrel as published 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 the report *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 the report *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 Consumption. Calculated annually by EIA as the average of the thermal conversion factors for all liquefied petroleum gases consumed (see Table A1) weighted by the quantities consumed. The component products of liquefied petroleum gases are ethane (including ethylene), propane (including propylene), normal butane (including butylene), butane-propane mixtures, ethane-propane mixtures, and isobutane. For 1973–1980, quantities consumed are from EIA, Energy Data Reports, “Petroleum Statement, Annual,” Table 1. For 1981 forward, quantities consumed are from 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 Consumption. 1973–1993: 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 (see Table A3). 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 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." See **Fuel Ethanol (Denatured)**.

Natural Gas Plant Liquids Production. Calculated annually by EIA as the average of the thermal conversion factors for each natural gas plant liquid produced weighted by the quantities 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 or equal to that for natural gasoline. See **Natural Gasoline**.

Petrochemical Feedstocks, Naphtha less than 401° F. 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, Other Oils equal to or greater than 401° F. 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 Values 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 Consumption, Commercial Sector. Calculated annually by EIA as the average of the thermal conversion factors for all petroleum products consumed by the commercial sector weighted by the estimated quantities consumed by the commercial sector. The quantities of petroleum products consumed by the commercial sector are estimated in the State Energy Data System—see documentation at http://www.eia.doe.gov/emeu/states/sep_use/notes/use_petrol.pdf.

Petroleum Consumption, Electric Power Sector. Calculated annually by EIA as the average of the thermal

conversion factors for all petroleum products consumed by the electric power sector weighted by the quantities consumed by the electric power sector. Data are from Form EIA-923, "Power Plant Operations Report," and predecessor forms.

Petroleum Consumption, Industrial Sector. Calculated annually by EIA as the average of the thermal conversion factors for all petroleum products consumed by the industrial sector weighted by the estimated quantities consumed by the industrial sector. The quantities of petroleum products consumed by the industrial sector are estimated in the State Energy Data System—see documentation at http://www.eia.doe.gov/emeu/states/sep_use/notes/use_petrol.pdf.

Petroleum Consumption, Residential Sector. Calculated annually by EIA as the average of the thermal conversion factors for all petroleum products consumed by the residential sector weighted by the estimated quantities consumed by the residential sector. The quantities of petroleum products consumed by the residential sector are estimated in the State Energy Data System—see documentation at http://www.eia.doe.gov/emeu/states/sep_use/notes/use_petrol.pdf.

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

Petroleum Consumption, Transportation Sector. Calculated annually by EIA as the average of the thermal conversion factors for all petroleum products consumed by the transportation sector weighted by the estimated quantities consumed by the transportation sector. The quantities of petroleum products consumed by the transportation sector are estimated in the State Energy Data System—see documentation at http://www.eia.doe.gov/emeu/states/sep_use/notes/use_petrol.pdf.

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

Petroleum Products Imports. Calculated annually by EIA as the average of the thermal conversion factors for each petroleum product imported weighted by the quantities 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 as published 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 the 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, first published in the *Petroleum Statement, Annual, 1970*.

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

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

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 it in EIA's *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 it in EIA's *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 Biofuels

Biodiesel. EIA estimated the thermal conversion factor for biodiesel to be 5.359 million Btu per barrel, or 17,253 Btu per pound.

Biodiesel Feedstock. EIA used soybean oil input to the production of biodiesel (million Btu soybean oil per barrel biodiesel) as the factor to estimate total biomass inputs to the production of biodiesel. EIA assumed that 7.65 pounds

of soybean oil are needed to produce one gallon of biodiesel, and 5.433 million Btu of soybean oil are needed to produce one barrel of biodiesel. EIA also assumed that soybean oil has a gross heat content of 16,909 Btu per pound, or 5.483 million Btu per barrel.

Ethanol (Undenatured). 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.

Fuel Ethanol (Denatured). 1981–2008 and 2010: EIA used the 2009 factor. 2009: Calculated by EIA as the annual quantity-weighted average of the thermal conversion factors for undenatured ethanol (3.539 million Btu per barrel), pentanes plus used as denaturant (4.620 million Btu per barrel), and conventional motor gasoline used as denaturant (5.253 million Btu per barrel). The quantity of ethanol consumed is from EIA, *Petroleum Supply Monthly (PSM)*, Table 1, data for renewable fuels and oxygenate plant net production of fuel ethanol. The quantity of pentanes plus used as denaturant is from EIA, PSM, Table 1, data for renewable fuels and oxygenate plant net production of pentanes plus, multiplied by -1. The quantity of conventional motor gasoline used as denaturant is from EIA, PSM, Table 1, data for renewable fuels and oxygenate plant net production of conventional motor gasoline, multiplied by -1.

Fuel Ethanol Feedstock. EIA used corn input to the production of undenatured ethanol (million Btu corn per barrel undenatured ethanol) as the annual factor to estimate total biomass inputs to the production of undenatured ethanol. U.S. Department of Agriculture observed ethanol yields (gallons undenatured ethanol per bushel of corn) were 2.5 in 1980, 2.666 in 1998, 2.68 in 2002, and 2.764 in 2009; EIA estimated the ethanol yields in other years. EIA also assumed that corn has a gross heat content of 0.392 million Btu per bushel.

Approximate Heat Content of Natural Gas

Natural Gas Consumption, Electric Power Sector. Calculated annually by EIA by dividing the heat content of natural gas consumed by the electric power sector by the quantity consumed. Data are from Form EIA-923, "Power Plant Operations Report," and predecessor forms.

Natural Gas Consumption, End-Use Sectors. Calculated annually by EIA by dividing the heat content of natural gas consumed by the end-use sectors (residential, commercial, industrial, and transportation) by the quantity consumed. Data are from Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition."

Natural Gas Consumption, Total. 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 consumed.

Natural Gas Exports. Calculated annually by EIA by dividing the heat content of natural gas exported by the quantity exported. For 1973–1995, data are from Form FPC-14, “Annual Report for Importers and Exporters of Natural Gas.” Beginning in 1996, data are from U.S. Department of Energy, Office of Fossil Energy, *Natural Gas Imports and Exports*.

Natural Gas Imports. Calculated annually by EIA by dividing the heat content of natural gas imported by the quantity imported. For 1973–1995, data are from Form FPC-14, “Annual Report for Importers and Exporters of Natural Gas.” Beginning in 1996, data are from U.S. Department of Energy, Office of Fossil Energy, *Natural Gas Imports and Exports*.

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

Natural Gas Production, Marketed. Calculated annually by EIA by dividing the heat content of dry natural gas produced (see **Natural Gas Production, Dry**) and natural gas plant liquids produced (see **Natural Gas Plant Liquids Production**) by the total quantity of marketed natural gas produced.

Approximate Heat Content of Coal and Coal Coke

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

Coal Consumption, Electric Power Sector. Calculated annually by EIA by dividing the heat content of coal consumed by the electric power sector by the quantity consumed. Data are from Form EIA-923, “Power Plant Operations Report,” and predecessor forms.

Coal Consumption, Industrial Sector, Coke Plants. Calculated annually by EIA by dividing the heat content of coal consumed by coke plants by the quantity consumed. Data are from Form EIA-5, “Quarterly Coal Consumption and Quality Report—Coke Plants.”

Coal Consumption, Industrial Sector, Other. Calculated annually by EIA by dividing the heat content of coal consumed by manufacturing plants by the quantity consumed. Data are from Form EIA-3, “Quarterly Coal Consumption and Quality Report—Manufacturing Plants.”

Coal Consumption, Residential and Commercial Sectors. Calculated annually by EIA by dividing the heat content of coal consumed by the residential and commercial sectors by the quantity consumed. Through 1999, data are from Form EIA-6, “Coal Distribution Report.” Beginning in 2000, data are for commercial combined-heat-and-power (CHP) plants from Form EIA-923, “Power Plant Operations Report,” and predecessor forms.

Coal Consumption, Total. Calculated annually by EIA by dividing the total heat content of coal consumed by all sectors by the total quantity consumed.

Coal Exports. Calculated annually by EIA by dividing the heat content of steam coal and metallurgical coal exported by the quantity exported. Data are from U.S. Department of Commerce, Bureau of the Census, “Monthly Report EM 545.”

Coal Imports. Assumed by EIA to be 25.000 million Btu per short ton.

Coal Production. Calculated annually by EIA to balance the heat content of coal supply (production and imports) and the heat content of coal disposition (exports, stock change, and consumption).

Waste Coal Supplied. Calculated annually by EIA by dividing the total heat content of waste coal supplied by the quantity supplied. For 1989–1997, data are from Form EIA-867, “Annual Nonutility Power Producer Report.” For 1998–2000, data are from Form EIA-860B, “Annual Electric Generator Report—Nonutility.” For 2001 forward, data are from Form EIA-3, “Quarterly Coal Consumption and Quality Report—Manufacturing Plants”; Form EIA-923, “Power Plant Operations Report”; and predecessor forms.

Approximate Heat Rates for Electricity

Electricity Net Generation, Fossil-Fueled Plants. There is no generally accepted practice for measuring the thermal conversion rates for power plants that generate electricity from hydro, wind, photovoltaic, or solar thermal energy sources. Therefore, EIA calculates a rate factor that is equal to the annual average heat rate factor for fossil-fueled 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. 1973–1988: The weighted annual average heat rate for fossil-fueled steam-electric power plants in the United States, as published in EIA, *Electric Plant Cost and Power Production Expenses 1991*, Table 9. 1989–2000: Calculated annually by EIA by using the heat rate data reported on Form EIA-860, “Annual Electric Generator Report” (and predecessor forms); and net generation data reported on Form EIA-759, “Monthly Power Plant Report.” The computation includes data for all electric utility steam-electric plants using fossil fuels.

2001 forward: Calculated annually by EIA by using fuel consumption and net generation data reported on Form EIA-923, "Power Plant Operations Report," and predecessor forms. The computation includes data for all electric utilities and electricity-only independent power producers using fossil fuels.

Electricity Net Generation, Geothermal Energy Plants.

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, "Power System Statement." 1982 forward: Estimated annually by EIA on the basis of an informal survey of relevant plants.

Electricity Net Generation, Nuclear Plants.

1973–1984: Calculated annually 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 were reported on Form FERC-1, "Annual Report of Major Electric Utilities, Licensees, and Others"; Form EIA-412, "Annual Report of Public Electric Utilities"; and predecessor forms. For 1982, the factors were published in EIA, *Historical Plant Cost and Annual Production Expenses for Selected Electric Plants 1982*, page 215. For 1983 and 1984, the factors were published in EIA, *Electric Plant Cost and Power Production Expenses 1991*, Table 13. 1985 forward: Calculated annually by EIA by using the heat rate reported on Form EIA-860, "Annual Electric Generator Report" (and predecessor forms), and the generation reported on Form EIA-923, "Power Plant Operations Report" (and predecessor forms).

B

Appendix

Metric Conversion Factors, Metric Prefixes, and Other Physical Conversion Factors

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

The metric conversion factors presented in Table B1 can be used to calculate the metric-unit equivalents of values expressed in U.S. Customary units. For example, 500 short

tons are the equivalent of 453.6 metric tons (500 short tons x 0.9071847 metric tons/short ton = 453.6 metric tons).

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

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

Table B1. Metric Conversion Factors

Type of Unit	U.S. Unit		Equivalent in	Metric Units
Mass	1 short ton (2,000 lb)	=	0.907 184 7	metric tons (t)
	1 long ton	=	1.016 047	metric tons (t)
	1 pound (lb)	=	0.453 592 37 ^a	kilograms (kg)
	1 pound uranium oxide (lb U ₃ O ₈)	=	0.384 647 ^b	kilograms uranium (kgU)
	1 ounce, avoirdupois (avdp oz)	=	28.349 52	grams (g)
Volume	1 barrel of oil (bbl)	=	0.158 987 3	cubic meters (m ³)
	1 cubic yard (yd ³)	=	0.764 555	cubic meters (m ³)
	1 cubic foot (ft ³)	=	0.028 316 85	cubic meters (m ³)
	1 U.S. gallon (gal)	=	3.785 412	liters (L)
	1 ounce, fluid (fl oz)	=	29.573 53	milliliters (mL)
	1 cubic inch (in ³)	=	16.387 06	milliliters (mL)
Length	1 mile (mi)	=	1.609 344 ^a	kilometers (km)
	1 yard (yd)	=	0.914 4 ^a	meters (m)
	1 foot (ft)	=	0.304 8 ^a	meters (m)
	1 inch (in)	=	2.54 ^a	centimeters (cm)
Area	1 acre	=	0.404 69	hectares (ha)
	1 square mile (mi ²)	=	2.589 988	square kilometers (km ²)
	1 square yard (yd ²)	=	0.836 127 4	square meters (m ²)
	1 square foot (ft ²)	=	0.092 903 04 ^a	square meters (m ²)
	1 square inch (in ²)	=	6.451 6 ^a	square centimeters (cm ²)
Energy	1 British thermal unit (Btu) ^c	=	1,055.055 852 62 ^a	joules (J)
	1 calorie (cal)	=	4.186 8 ^a	joules (J)
	1 kilowatthour (kWh)	=	3.6 ^a	megajoules (MJ)
Temperature^d	32 degrees Fahrenheit (°F)	=	0 ^a	degrees Celsius (°C)
	212 degrees Fahrenheit (°F)	=	100 ^a	degrees Celsius (°C)

^aExact conversion.

^bCalculated by the U.S. Energy Information Administration.

^cThe Btu used in this table is the International Table Btu adopted by the Fifth International Conference on Properties of Steam, London, 1956.

^dTo convert degrees Fahrenheit (°F) to degrees Celsius (°C) exactly, subtract 32, then multiply by 5/9.

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, see <http://physics.nist.gov/cuu/Units/index.html>.

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

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

Table B2. Metric Prefixes

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

Web Page: http://www.eia.doe.gov/emeu/mer/append_b.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		Equivalent in Final Units
Petroleum	1 barrel (bbl)	=	42 ^a U.S. gallons (gal)
Coal	1 short ton	=	2,000 ^a pounds (lb)
	1 long ton	=	2,240 ^a pounds (lb)
	1 metric ton (t)	=	1,000 ^a kilograms (kg)
Wood	1 cord (cd)	=	1.25 ^b shorts tons
	1 cord (cd)	=	128 ^a cubic feet (ft ³)

^aExact conversion.

^bCalculated by the U.S. Energy Information Administration.

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

Source: U.S. Department of Commerce, National Institute of Standards and Technology, *Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices*, NIST Handbook 44, 1994 Edition (Washington, DC, October 1993), pp. B-10, C-17 and C-21.

Glossary

Alcohol: The family name of a group of organic chemical compounds composed of carbon, hydrogen, and oxygen. The series of molecules vary in chain length and are composed of a **hydrocarbon** plus a hydroxyl group; $\text{CH}_3\text{-(CH}_2)_n\text{-OH}$ (e.g., **methanol**, **ethanol**, and tertiary butyl alcohol). See **Fuel Ethanol**.

Alternative Fuel: Alternative fuels, for transportation applications, include the following: **methanol**; denatured **ethanol**, and other **alcohols**; fuel mixtures containing 85 percent or more by volume of methanol, denatured ethanol, and other alcohols with **motor gasoline** or other fuels; **natural gas**; **liquefied petroleum gas (propane)**; **hydrogen**; **coal-derived liquid fuels**; fuels (other than alcohol) derived from biological materials (**biofuels** such as **soy diesel fuel**); **electricity** (including electricity from **solar energy**); and "... any other fuel the Secretary determines, by rule, is substantially not **petroleum** and would yield substantial energy security benefits and substantial environmental benefits." The term "alternative fuel" does not include alcohol or other blended portions of primarily petroleum-based fuels used as **oxygenates** or extenders, i.e., **MTBE**, **ETBE**, other ethers, and the 10-percent ethanol portion of **gasohol**.

Alternative-Fuel Vehicle (AFV): A vehicle designed to operate on an **alternative fuel** (e.g., compressed **natural gas**, **methane** blend, or **electricity**). The vehicle could be either a dedicated vehicle designed to operate exclusively on alternative fuel or a nondedicated vehicle designed to operate on alternative fuel and/or a traditional fuel.

Anthracite: The highest rank of **coal**; used primarily for residential and commercial space heating. 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. 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 **short ton** on a moist, mineral-matter-free basis. The heat content of anthracite coal consumed in the United States averages 25 million Btu per short ton, on the as-received basis (i.e., containing both inherent moisture and mineral matter). *Note:* Since the 1980's, 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.

Anthropogenic: Made or generated by a human or caused by human activity. The term is used in the context of global **climate change** to refer to gaseous emissions that are the result of human activities, as well as other potentially climate-altering activities, such as deforestation.

Asphalt: A dark-brown-to-black cement-like material containing bitumens as the predominant constituents obtained by petroleum processing. The definition includes crude asphalt as well as the following finished products: cements, fluxes, the asphalt content of emulsions (exclusive of water), and petroleum distillates blended with asphalt to make cutback asphalts.

ASTM: The American Society for Testing and Materials.

Aviation Gasoline Blending Components: Naphthas that will be used for blending or compounding into finished aviation gasoline (e.g., straight run gasoline, alkylate, reformate, benzene, toluene, and xylene). Excludes oxygenates (alcohols, ethers), butane, and pentanes plus.

Aviation Gasoline, Finished: A complex mixture of relatively volatile hydrocarbons with or without small quantities of additives, blended to form a fuel suitable for use in aviation reciprocating engines. Fuel specifications are provided in ASTM Specification D 910 and Military Specification MIL-G-5572. *Note:* Data on blending components are not counted in data on finished aviation gasoline.

Barrel (Petroleum): A unit of volume equal to 42 U.S. Gallons.

Base Gas: The volume of gas needed as a permanent inventory to maintain adequate underground storage reservoir pressures and deliverability rates throughout the withdrawal season. All native gas is included in the base gas volume.

Biodiesel: A fuel typically made from soybean, canola, or other vegetable oils; animal fats; and recycled grease. It can serve as a substitute for **petroleum-derived diesel fuel** or **distillate fuel oil**. For U.S. Energy Information Administration reporting, it is a fuel composed of mono-alkyl esters of long chain fatty acids derived from vegetable oils or animal fats, designated B100, and meeting the requirements of ASTM (American Society for Testing & Materials) D 6751.

Biofuels: Liquid fuels and blending components produced from **biomass** (plant) feedstocks, used primarily for transportation. See **Biodiesel** and **Fuel Ethanol**.

Biogenic: Produced by biological processes of living organisms. *Note:* EIA uses the term "biogenic" to refer only to organic nonfossil material of biological origin.

Biomass: Organic non-fossil material of biological origin constituting a **renewable energy** source. See **Biodiesel**, **Biofuels**, **Biomass Waste**, **Fuel Ethanol**, and **Wood and Wood-Derived Fuels**.

Biomass Waste: Organic non-fossil material of biological origin that is a byproduct or a discarded product. "Biomass waste" includes municipal solid waste from **biogenic** sources, landfill gas, sludge waste, agricultural crop byproducts, straw, and other **biomass** solids, liquids, and gases; but excludes **wood and wood-derived fuels** (including **black liquor**), **biofuels** feedstock, **biodiesel**, and **fuel ethanol**. **Note:** EIA "biomass waste" data also include energy crops grown specifically for energy production, which would not normally constitute waste.

Bituminous Coal: A dense **coal**, usually black, sometimes dark brown, often with well-defined bands of bright and dull material, 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**. Bituminous coal is the most abundant coal in active U.S. mining regions. Its moisture content usually is less than 20 percent. The heat content of bituminous coal ranges from 21 to 30 million **Btu** per **short ton** on a moist, mineral-matter-free basis. The heat content of bituminous coal consumed in the United States averages 24 million Btu per short ton, on the as-received basis (i.e., containing both inherent moisture and mineral matter).

Black Liquor: A byproduct of the paper production process, alkaline spent liquor, that can be used as a source of energy. Alkaline spent liquor is removed from the digesters in the process of chemically pulping wood. After evaporation, the residual "black" liquor is burned as a fuel in a recovery furnace that permits the recovery of certain basic chemicals.

British Thermal Unit (Btu): The quantity of heat required to raise the temperature of 1 pound of liquid water by 1 degree Fahrenheit at the temperature at which water has its greatest density (approximately 39 degrees Fahrenheit). See **Heat Content**.

Btu: See **British Thermal Unit**.

Btu Conversion Factor: A factor for converting **energy** data between one unit of measurement and **British thermal units (Btu)**. Btu conversion factors are generally used to convert energy data from physical units of measure (such as **barrels**, **cubic feet**, or **short tons**) into the energy-equivalent measure of Btu. (See http://www.eia.doe.gov/emeu/mer/append_a.html for further information on Btu conversion factors.)

Butane: A normally gaseous straight-chain or branched-chain hydrocarbon (C₄H₁₀). It is extracted from natural gas or refinery gas streams. It includes isobutane and normal butane and is designated in ASTM Specification D1835 and Gas Processors Association Specifications for commercial butane.

Isobutane: A normally gaseous branched-chain hydrocarbon. It is a colorless paraffinic gas that boils at a temperature of

10.9° F. It is extracted from natural gas or refinery gas streams.

Normal Butane: A normally gaseous straight-chain hydrocarbon. It is a colorless paraffinic gas that boils at a temperature of 31.1° F. It is extracted from natural gas or refinery gas streams.

Butylene: An olefinic hydrocarbon (C₄H₈) recovered from refinery processes.

Capacity Factor: The ratio of the electrical energy produced by a generating unit for a given period of time to the electrical energy that could have been produced at continuous full-power operation during the same period.

Carbon Dioxide (CO₂): A colorless, odorless, non-poisonous gas that is a normal part of Earth's atmosphere. Carbon dioxide is a product of **fossil-fuel** combustion as well as other processes. It is considered a **greenhouse gas** as it traps heat (infrared energy) radiated by the Earth into the atmosphere and thereby contributes to the potential for **global warming**. The **global warming potential (GWP)** of other greenhouse gases is measured in relation to that of carbon dioxide, which by international scientific convention is assigned a value of one (1).

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.

Climate Change: A term used to refer to all forms of climatic inconsistency, but especially to significant change from one prevailing climatic condition to another. In some cases, "climate change" has been used synonymously with the term "**global warming**"; scientists, however, tend to use the term in a wider sense inclusive of natural changes in climate, including climatic cooling.

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. See **Anthracite, Bituminous Coal, Lignite, Subbituminous Coal, Waste Coal, and Coal Synfuel**.

Coal Coke: See **Coke, Coal**.

Coal Stocks: Coal quantities that are held in storage for future use and disposition. Note: When coal data are collected for a particular reporting period (month, quarter, or year), coal stocks are commonly measured as of the last day of the period.

Coal Synfuel: Coal-based solid fuel that has been processed by a **coal synfuel plant**; and coal-based fuels such as briquettes, pellets, or extrusions, which are formed from fresh or recycled coal and binding materials.

Coal Synfuel Plant: A plant engaged in the chemical transformation of **coal** into **coal synfuel**.

Coke, Coal: A solid carbonaceous residue derived from low-ash, low-sulfur bituminous coal from which the volatile constituents are driven off by baking in an oven at temperatures as high as 2,000° F so that the fixed carbon and residual ash are fused together. Coke is used as a fuel and as a reducing agent in smelting iron ore in a blast furnace. Coke (coal) has a heating value of 24.8 million Btu per ton.

Coke, Petroleum: A residue high in carbon content and low in hydrogen that is the final product of thermal decomposition in the condensation process in cracking. This product is reported as marketable coke or catalyst coke. The conversion is 5 barrels (42 U.S. gallons each) per short ton. Coke (petroleum) has a heating value of 6.024 million Btu per barrel.

Coking Coal: Bituminous coal suitable for making coke. See **Coke, Coal**.

Combined-Heat-and-Power (CHP) Plant: A plant designed to produce both heat and electricity from a single heat source. Note: This term is being used in place of the term "cogenerator" that was used by EIA in the past. CHP better describes the facilities because some of the plants included do not produce heat and power in a sequential fashion and, as a result, do not meet the legal definition of cogeneration specified in the Public Utility Regulatory Policies Act (PURPA).

Commercial Sector: An energy-consuming sector that consists of service-providing facilities and equipment of: businesses; Federal, State, and local governments; and other private and public organizations, such as religious, social, or fraternal groups. The commercial sector includes

institutional living quarters. It also includes sewage treatment facilities. Common uses of energy associated with this sector include space heating, water heating, air conditioning, lighting, refrigeration, cooking, and running a wide variety of other equipment. *Note:* This sector includes generators that produce electricity and/or useful thermal output primarily to support the activities of the above-mentioned commercial establishments. Various EIA programs differ in sectoral coverage—for more information see

<http://www.eia.doe.gov/neic/datadefinitions/Guideforwebcom.html>. See **End-Use Sectors** and **Energy-Use Sectors**.

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.

Conventional Gasoline: Finished motor gasoline not included in the oxygenated or reformulated gasoline categories. *Note:* This category excludes reformulated gasoline blendstock for oxygenate blending (RBOB) as well as other blendstock.

Conventional Hydroelectric Power: Hydroelectric power generated from flowing water that is not created by **hydroelectric pumped storage**.

Conversion Factor: A factor for converting data between one unit of measurement and another (such as between **short tons** and **British thermal units**, or between **barrels** and gallons). (See http://www.eia.doe.gov/emeu/mer/append_a.html and http://www.eia.doe.gov/emeu/mer/append_b.html for further information on conversion factors.) See **Btu Conversion Factor** and **Thermal Conversion Factor**.

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, oil sands, gilsonite, and oil shale.

Liquids produced at natural gas processing plants are excluded. Crude oil is refined to produce a wide array of petroleum products, including heating oils; gasoline, diesel and jet fuels; lubricants; asphalt; ethane, propane, and butane; and many other products used for their energy or chemical content.

Crude Oil F.O.B. Price: The crude oil price actually charged at the oil-producing country's port of loading. Includes deductions for any rebates and discounts or additions of premiums, where applicable. It is the actual price paid with no adjustment for credit terms.

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

Crude Oil Landed Cost: The price of crude oil at the port of discharge, including charges associated with the purchase, transporting, and insuring of a cargo from the purchase point to the port of discharge. The cost does not include charges incurred at the discharge port (e.g., import tariffs or fees, wharfage charges, and demurrage).

Crude Oil Refinery Input: The total crude oil put into processing units at refineries.

Crude Oil Stocks: Stocks of crude oil and lease condensate held at refineries, in pipelines, at pipeline terminals, and on leases.

Crude Oil Used Directly: Crude oil consumed as fuel by crude oil pipelines and on crude oil leases.

Crude Oil Well: A well completed for the production of crude oil from one or more oil zones or reservoirs. Wells producing both crude oil and natural gas are classified as oil wells.

Cubic Foot (Natural Gas): A unit of volume equal to 1 cubic foot at a pressure base of 14.73 pounds standard per square inch absolute and a temperature base of 60° F.

Degree-Day Normals: Simple arithmetic averages of monthly or annual degree-days over a long period of time (usually the 30-year period 1961-1990). The averages may be simple degree-day normals or population-weighted degree-day normals.

Degree-Days, Cooling (CDD): A measure of how warm a location is over a period of time relative to a base temperature, most commonly specified as 65 degrees Fahrenheit. The measure is computed for each day by subtracting the base temperature (65 degrees) from the average of the day's high and low temperatures, with negative values set equal to zero. Each day's cooling degree-days are summed to create a cooling degree-day measure for a specified reference period. Cooling degree-days are used in energy analysis as an indicator of air conditioning energy requirements or use.

Degree-Days, Heating (HDD): A measure of how cold a location is over a period of time relative to a base temperature, most commonly specified as 65 degrees Fahrenheit. The measure is computed for each day by subtracting the average of the day's high and low temperatures from the base temperature (65 degrees), with negative values set equal to zero. Each day's heating degree-days are summed to create a heating degree-day measure for a specified reference period. Heating degree-days are used in energy analysis as an indicator of space heating energy requirements or use.

Degree-Days, Population-Weighted: Heating or cooling degree-days weighted by the population of the area in which the degree-days are recorded. To compute State population-weighted degree-days, each State is divided into from one to nine climatically homogeneous divisions, which are assigned weights based on the ratio of the population of the division to the total population of the State. Degree-day readings for each division are multiplied by the corresponding population weight for each division and those products are then summed to arrive at the State population-weighted degree-day figure. To compute national population-weighted degree-days, the Nation is divided into nine Census regions, each comprising from three to eight States, which are assigned weights based on the ratio of the population of the region to the total population of the Nation. Degree-day readings for each region are multiplied by the corresponding population weight for each region and those products are then summed to arrive at the national population-weighted degree-day figure.

Denaturant: Petroleum, typically **pentanes plus** or **conventional motor gasoline**, added to **fuel ethanol** to make it unfit for human consumption. Fuel ethanol is denatured, usually prior to transport from the ethanol production facility, by adding 2 to 5 volume percent denaturant. See **Fuel Ethanol** and **Fuel Ethanol Minus Denaturant**.

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.

Diesel Fuel: A fuel composed of **distillate fuel oils** obtained in petroleum refining operation or blends of such distillate fuel oils with **residual fuel oil** used in motor vehicles. The boiling point and specific gravity are higher for diesel fuels than for gasoline.

Direct Use: Use of electricity that 1) is self-generated, 2) is produced by either the same entity that consumes the power or an affiliate, and 3) is used in direct support of a service or industrial process located within the same facility or group of facilities that house the generating equipment. Direct use is exclusive of **station use**.

Distillate Fuel Oil: A general classification for one of the **petroleum** fractions produced in conventional distillation operations. It includes **diesel fuels** and fuel oils. Products known as No. 1, No. 2, and No. 4 diesel fuel are used in on-highway diesel engines, such as those in trucks and automobiles, as well as off-highway engines, such as those in railroad locomotives and agricultural machinery. Products known as No. 1, No. 2, and No. 4 fuel oils are used primarily for space heating and **electricity 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**.

E85: A fuel containing a mixture of 85 percent **ethanol** and 15 percent **motor gasoline**.

Electric Power Plant: A station containing prime movers, electric generators, and auxiliary equipment for converting mechanical, chemical, and/or fission energy into electric energy.

Electric Power Sector: An energy-consuming sector that consists of electricity-only and combined-heat-and-power (CHP) plants whose primary business is to sell electricity, or electricity and heat, to the public-i.e., North American Industry Classification System 22 plants. See also **Combined-Heat-and-Power (CHP) Plant**, **Electricity-Only Plant**, **Electric Utility**, and **Independent Power Producer**.

Electric Utility: Any entity that generates, transmits, or distributes **electricity** and recovers the cost of its generation, transmission or distribution assets and operations, either directly or indirectly, through cost-based rates set by a separate regulatory authority (e.g., State Public Service Commission), or is owned by a governmental unit or the consumers that the entity serves. Examples of these entities include: investor-owned entities, public power districts, public utility districts, municipalities, rural electric cooperatives, and State and Federal agencies. Electric utilities may have Federal Energy Regulatory Commission approval for interconnection agreements and wholesale trade tariffs

covering either cost-of-service and/or market-based rates under the authority of the Federal Power Act. See **Electric Power Sector**.

Electrical System Energy Losses: The amount of energy lost during generation, transmission, and distribution of electricity, including plant and unaccounted-for uses.

Electricity: A form of energy characterized by the presence and motion of elementary charged particles generated by friction, induction, or chemical change.

Electricity Generation: The process of producing electric energy, or the amount of electric energy produced by transforming other forms of energy, commonly expressed in **kilowatthours** (kWh) or megawatthours (Mwh).

Electricity Generation, Gross: The total amount of electric energy produced by generating units and measured at the generating terminal in **kilowatthours** (kWh) or megawatthours (MWh).

Electricity Generation, Net: The amount of **gross electricity generation** less **station use** (the **electric energy** consumed at the generating station(s) for station service or auxiliaries). *Note:* Electricity required for pumping at **hydroelectric pumped-storage** plants is regarded as electricity for station service and is deducted from gross generation.

Electricity-Only Plant: A plant designed to produce electricity only. See also **Combined-Heat-and-Power (CHP) Plant**.

Electricity Retail Sales: The amount of electricity sold to customers purchasing electricity for their own use and not for resale.

End-Use Sectors: The **residential**, **commercial**, **industrial**, and **transportation** sectors of the economy.

Energy: The capacity for doing work as measured by the capability of doing work (potential energy) or the conversion of this capability to motion (kinetic energy). Energy has several forms, some of which are easily convertible and can be changed to another form useful for work. Most of the world's convertible energy comes from fossil fuels that are burned to produce heat that is then used as a transfer medium to mechanical or other means in order to accomplish tasks. Electrical energy is usually measured in kilowatthours, while heat energy is usually measured in British thermal units.

Energy Consumption: The use of energy as a source of heat or power or as an input in the manufacturing process.

Energy Service Provider: An energy entity that provides service to a retail or end-use customer.

Energy-Use Sectors: A group of major energy-consuming components of U.S. society developed to measure and

analyze energy use. The sectors most commonly referred to in EIA are: **residential, commercial, industrial, transportation, and electric power.**

Ethane: A normally gaseous straight-chain hydrocarbon (C₂H₆). It is a colorless, paraffinic gas that boils at a temperature of -127.48° F. It is extracted from natural gas and refinery gas streams.

Ethanol (C₂H₅OH): A clear, colorless, flammable **alcohol**. Ethanol is typically produced biologically from **biomass** feedstocks such as agricultural crops and cellulosic residues from agricultural crops or wood. Ethanol can also be produced chemically from **ethylene**. See **Biomass, Fuel Ethanol, and Fuel Ethanol Minus Denaturant.**

Ethylene: An olefinic hydrocarbon (C₂H₄) recovered from refinery processes or petrochemical processes.

Exploratory Well: A well drilled to find and produce oil or gas in an area previously considered an unproductive area, to find a new reservoir in a known field (i.e., one previously found to be producing oil or gas in another reservoir), or to extend the limit of a known oil or gas reservoir.

Exports: Shipments of goods from within the 50 States and the District of Columbia to U.S. possessions and territories or to foreign countries.

Extraction Loss: The reduction in volume of natural gas due to the removal of natural gas liquid constituents, such as ethane, propane, and butane, at natural gas processing plants.

Federal Energy Administration (FEA): A predecessor of the U.S. 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 U.S. 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 U.S. Department of Energy was created. Its functions were divided between the U.S. Department of Energy and the Federal Energy Regulatory Commission, an independent regulatory agency.

First Purchase Price: The price for domestic crude oil reported by the company that owns the crude oil the first time it is removed from the lease boundary.

Flared Natural Gas: Natural gas burned in flares on the base site or at gas processing plants.

F.O.B. (Free on Board): A sales transaction in which the seller makes the product available for pick up at a specified port or terminal at a specified price and the buyer pays for the subsequent transportation and insurance.

Footage Drilled: Total footage for wells in various categories, as reported for any specified period, includes (1) the deepest total depth (length of well bores) of all wells drilled from the surface, (2) the total of all bypassed footage drilled in connection with reported wells, and (3) all new footage drilled for directional sidetrack wells. Footage reported for directional sidetrack wells does not include footage in the common bore, which is reported as footage for the original well. In the case of old wells drilled deeper, the reported footage is that which was drilled below the total depth of the old well.

Former U.S.S.R.: See **Union of Soviet Socialist Republics (U.S.S.R.).**

Fossil Fuel: An energy source formed in the Earth's crust from decayed organic material, such as **petroleum, coal, and natural gas.**

Fossil-Fueled Steam-Electric Power Plant: An electricity generation plant in which the prime mover is a turbine rotated by high-pressure steam produced in a boiler by heat from burning fossil fuels.

Fuel Ethanol: **Ethanol** intended for fuel use. Fuel ethanol in the United States must be anhydrous (less than 1 percent water). Fuel ethanol is denatured (made unfit for human consumption), usually prior to transport from the ethanol production facility, by adding 2 to 5 volume percent petroleum, typically **pentanes plus** or **conventional motor gasoline**. Fuel ethanol is used principally for blending in low concentrations with **motor gasoline** as an **oxygenate** or octane enhancer. In high concentrations, it is used to fuel **alternative-fuel vehicles** specially designed for its use. See **Alternative-Fuel Vehicle, Denaturant, E85, Ethanol, Fuel Ethanol Minus Denaturant, and Oxygenates.**

Fuel Ethanol Minus Denaturant: An unobserved quantity of anhydrous, **biomass-derived**, undenatured **ethanol** for fuel use. The quantity is obtained by subtracting the estimated **denaturant** volume from **fuel ethanol** volume. Fuel ethanol minus denaturant is counted as **renewable energy**, while denaturant is counted as **nonrenewable fuel**. See **Denaturant, Ethanol, Fuel Ethanol, Nonrenewable Fuels, Oxygenates, and Renewable Energy.**

Full-Power Operation: Operation of a nuclear generating unit at 100 percent of its design capacity. Full-power operation precedes commercial operation.

Gasohol: A blend of finished motor gasoline containing alcohol (generally **ethanol** but sometimes methanol) at a concentration between 5.7 percent and 10 percent by volume. See **Motor Gasoline, Oxygenated**.

Gas Well: A well completed for the production of natural gas from one or more gas zones or reservoirs. (Wells producing both crude oil and natural gas are classified as oil wells.)

Geothermal Energy: Hot water or steam extracted from geothermal reservoirs in the earth's crust and used for geothermal heat pumps, water heating, or electricity generation.

Global Warming: An increase in the near-surface temperature of the Earth. Global warming has occurred in the distant past as the result of natural influences, but the term is today most often used to refer to the warming some scientists predict will occur as a result of increased **anthropogenic** emissions of **greenhouse gases**. See **Climate Change**.

Global Warming Potential (GWP): An index used to compare the relative radiative forcing of different gases without directly calculating the changes in atmospheric concentrations. GWPs are calculated as the ratio of the radiative forcing that would result from the emission of one kilogram of a **greenhouse gas** to that from the emission of one kilogram of **carbon dioxide** over a fixed period of time, such as 100 years.

Greenhouse Gases: Those gases, such as water vapor, **carbon dioxide**, nitrous oxide, **methane**, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulfur hexafluoride, that are transparent to solar (short-wave) radiation but opaque to long-wave (infrared) radiation, thus preventing long-wave radiant energy from leaving Earth's atmosphere. The net effect is a trapping of absorbed radiation and a tendency to warm the planet's surface.

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: The amount of heat energy available to be released by the transformation or use of a specified physical unit of an energy form (e.g., a ton of coal, a barrel of oil, a kilowatthour of electricity, a cubic foot of natural gas, or a pound of steam). The amount of heat energy is commonly expressed in **British thermal units (Btu)**. *Note:* Heat content of combustible energy forms can be expressed in terms of either gross heat content (higher or upper heating value) or net heat content (lower heating value), depending upon whether or not the available heat energy includes or excludes the energy used to vaporize water (contained in the

original energy form or created during the combustion process). The U.S. Energy Information Administration typically uses gross heat content values.

Heat Rate: A measure of generating station thermal efficiency commonly stated as **Btu per kilowatthour**. *Note:* Heat rates can be expressed as either gross or net heat rates, depending whether the electricity output is gross or net generation. Heat rates are typically expressed as net heat rates.

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.

Hydrogen (H): The lightest of all gases, hydrogen occurs chiefly in combination with oxygen in water. It also exists in acids, bases, **alcohols**, **petroleum**, and other **hydrocarbons**.

Imports: Receipts of goods into the 50 States and the District of Columbia from U.S. possessions and territories or from foreign countries.

Independent Power Producer: A corporation, person, agency, authority, or other legal entity or instrumentality that owns or operates facilities for the generation of electricity for use primarily by the public, and that is not an **electric utility**.

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

differ in sectoral coverage—for more information see <http://www.eia.doe.gov/neic/datadefinitions/Guideforwebind.htm>. See **End-Use Sectors** and **Energy-Use Sectors**.

Injections (Natural Gas): Natural gas injected into storage reservoirs.

Isobutane: A normally gaseous branch-chain hydrocarbon. It is a colorless paraffinic gas that boils at a temperature of 10.9° F. It is extracted from natural gas or refinery gas streams. See **Butane**.

Isobutylene: An olefinic hydrocarbon recovered from refinery processes or petrochemical processes.

Isopentane: A saturated branched-chain hydrocarbon obtained by fractionation of natural gasoline or isomerization of normal pentane.

Jet Fuel: A refined petroleum product used in jet aircraft engines. It includes kerosene-type jet fuel and naphtha-type jet fuel.

Jet Fuel, Kerosene-Type: A kerosene-based product with a maximum distillation temperature of 400° F at the 10-percent recovery point and a final maximum boiling point of 572° F. Fuel specifications are provided in ASTM Specification D 1655 and Military Specifications MIL-T-5624P and MIL-T-83133D (Grades JP-5 and JP-8). It is used primarily for commercial turbojet and turboprop aircraft engines.

Jet Fuel, Naphtha-Type: A fuel in the heavy naphtha boiling range, with an average gravity of 52.8 degrees API, 20 to 90 percent distillation temperatures of 290° to 470° F and meeting Military Specification MIL-T-5624L (Grade JP-4). It is used by the military for turbojet and turboprop engines.

Kerosene: A petroleum distillate having a maximum distillation temperature of 401° F at the 10-percent recovery point, a final boiling point of 572° F, and a minimum flash point of 100° F. Included are the two grades designated in ASTM D3699 (No. 1-K and No. 2-K) and all grades of kerosene called range or stove oil. Kerosene is used in space heaters, cook stoves, and water heaters; it is suitable for use as an illuminant when burned in wick lamps.

Kilowatt: A unit of electrical power equal to 1,000 **watts**.

Kilowatthour (kWh): A measure of electricity defined as a unit of work or energy, measured as 1 **kilowatt** (1,000 **watts**) of power expended for 1 hour. One kilowatthour is equivalent to 3,412 Btu. See **Watthour**.

Landed Costs: The dollar-per-barrel price of crude oil at the port of discharge. Included are the charges associated with the purchase, transporting, and insuring of a cargo from the purchase point to the port of discharge. Not

included are charges incurred at the discharge port (e.g., import tariffs or fees, wharfage charges, and demurrage charges).

Lease and Plant Fuel: Natural gas used in well, field, and lease operations (such as gas used in drilling operations, heaters, dehydrators, and field compressors) and used as fuel in natural gas processing plants.

Lease Condensate: A mixture consisting primarily of pentanes and heavier hydrocarbons, which is recovered as a liquid from natural gas in lease or field separation facilities. Note: This category excludes natural gas liquids, such as butane and propane, which are recovered at natural gas processing plants or facilities.

Lignite: The lowest rank of **coal**, often referred to as brown coal, 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 short ton** on a moist, mineral-matter-free basis. The heat content of lignite consumed in the United States averages 13 million Btu per short ton, on the as-received basis (i.e., containing both inherent moisture and mineral matter).

Liquefied Natural Gas (LNG): Natural gas (primarily methane) that has been liquefied by reducing its temperature to -260° F at atmospheric pressure.

Liquefied Petroleum Gases (LPG): Ethane, ethylene, propane, propylene, normal butane, butylene, and isobutane produced at refineries or natural gas processing plants, including plants that fractionate new natural gas plant liquids.

Low-Power Testing: The period of time between a nuclear generating unit's initial fuel loading date and the issuance of its operating (full-power) license. The maximum level of operation during that period is 5 percent of the unit's design thermal rating.

Lubricants: Substances used to reduce friction between bearing surfaces or as process materials either incorporated into other materials used as processing aids in the manufacturing of other products or as carriers of other materials. Petroleum lubricants may be produced either from distillates or residues. Other substances may be added to impart or improve certain required properties. Excluded are byproducts of lubricating oil refining, such as aromatic extracts derived from solvent extraction or tars derived from deasphalting. Included are all grades of lubricating oils from spindle oil to cylinder oil and those used in greases. Lubricant categories are paraffinic and naphthenic.

Marketed Production (Natural Gas): Gross withdrawals less gas used for repressuring, quantities vented and flared, and nonhydrocarbon gases removed in treating or

processing operations. Includes all quantities of gas used in field and processing operations.

Methane: A colorless, flammable, odorless, hydrocarbon gas (CH₄) that is the principal constituent of natural gas. It is also an important source of hydrogen in various industrial processes.

Methyl Tertiary Butyl Ether (MTBE): An ether, (CH₃)₃COCH₃, intended for motor gasoline blending. See **Oxygenates**.

Methanol: A light, volatile alcohol (CH₃OH) eligible for motor gasoline blending. See **Oxygenates**.

Miscellaneous Petroleum Products: All finished petroleum products not classified elsewhere—for example, petrolatum, lube refining byproducts (aromatic extracts and tars), absorption oils, ram-jet fuel, petroleum rocket fuels, synthetic natural gas feedstocks, and specialty oils.

Motor Gasoline Blending: Mechanical mixing of **motor gasoline blending components** and **oxygenates** as required, to produce finished motor gasoline. Finished motor gasoline may be further mixed with other motor gasoline blending components or oxygenates, resulting in increased volumes of finished motor gasoline and/or changes in the formulation of finished motor gasoline (e.g., conventional motor gasoline mixed with MTBE to produce oxygenated motor gasoline).

Motor Gasoline Blending Components: Naphtha (e.g., straight-run gasoline, alkylate, reformate, benzene, toluene, xylene) used for blending or compounding into finished motor gasoline. These components include reformulated gasoline blendstock (RBOB) but exclude oxygenates (alcohols, ethers), butane, and pentanes plus. *Note:* oxygenates are reported as individual components and are included in the total for other hydrocarbons, hydrogens, and oxygenates.

Motor Gasoline, Finished: A complex mixture of relatively volatile hydrocarbons with or without small quantities of additives, blended to form a fuel suitable for use in spark-ignition. Motor gasoline, as defined in ASTM Specification D-4814 or Federal Specification VV-G-1690C, is characterized as having a boiling range of 122°F to 158°F at the 10-percent recovery point to 365°F to 374°F at the 90-percent recovery point. “Motor gasoline” includes conventional gasoline, all types of oxygenated gasoline including gasohol, and reformulated gasoline, but excludes aviation gasoline. *Note:* Volumetric data on blending components, as well as oxygenates, are not counted in data on finished motor gasoline until the blending components are blended into the gasoline.

Motor Gasoline Grades: The classification of gasoline by octane ratings. Each type of gasoline (conventional, oxygenated, and reformulated) is classified by three

grades: regular, midgrade, and premium. *Note:* Gasoline sales are reported by grade in accordance with their classification at the time of sale. In general, automotive octane requirements are lower at high altitudes. Therefore, in some areas of the United States, such as the Rocky Mountain States, the octane ratings for the gasoline grades may be 2 or more octane points lower.

Regular Gasoline: Gasoline having an antiknock index, i.e., octane rating, greater than or equal to 85 and less than 88. *Note:* Octane requirements may vary by altitude. See **Motor Gasoline Grades**.

Midgrade Gasoline: Gasoline having an antiknock index, i.e., octane rating, greater than or equal to 88 and less than or equal to 90. *Note:* Octane requirements may vary by altitude. See **Motor Gasoline Grades**.

Premium Gasoline: Gasoline having an antiknock index, i.e., octane rating, greater than 90. *Note:* Octane requirements may vary by altitude. See **Motor Gasoline Grades**.

Motor Gasoline, Oxygenated: Finished motor gasoline, other than reformulated gasoline, having an oxygen content of 2.7 percent or higher by weight and required by the U.S. Environmental Protection Agency (EPA) to be sold in areas designated by EPA as carbon monoxide (CO) nonattainment areas. *Note:* Oxygenated gasoline excludes oxygenated fuels program reformulated gasoline (OPRG) and reformulated gasoline blendstock for oxygenate blending (RBOB). Data on gasohol that has at least 2.7 percent oxygen, by weight, and is intended for sale inside CO nonattainment areas are included in data on oxygenated gasoline. Other data on gasohol are included in data on conventional gasoline.

Motor Gasoline, Reformulated: Finished motor gasoline formulated for use in motor vehicles, the composition and properties of which meet the requirements of the reformulated gasoline regulations promulgated by the U.S. Environmental Protection Agency under Section 211(k) of the Clean Air Act. *Note:* This category includes oxygenated fuels program reformulated gasoline (OPRG) but excludes reformulated gasoline blendstock for oxygenate blending (RBOB).

Motor Gasoline Retail Prices: Motor gasoline prices calculated each month by the Bureau of Labor Statistics (BLS) in conjunction with the construction of the Consumer Price Index (CPI). Those prices are collected in 85 urban areas selected to represent all urban consumers—about 80 percent of the total U.S. population. The service stations are selected initially, and on a replacement basis, in such a way that they represent the purchasing habits of the CPI population. Service stations in the current sample include those providing all types of service (i.e., full-, mini-, and self-service).

Motor Gasoline (Total): For stock level data, a sum including finished motor gasoline stocks plus stocks of motor gasoline blending components but excluding stocks of oxygenates.

MTBE: See **Methyl Tertiary Butyl Ether**.

NAICS (North American Industry Classification System): A coding system developed jointly by the United States, Canada, and Mexico to classify businesses and industries according to the type of economic activity in which they are engaged. NAICS replaces the Standard Industrial Classification (SIC) codes. For additional information on NAICS, go to <http://www.census.gov/epcd/www/naics.html>.

Naphtha: A generic term applied to a petroleum fraction with an approximate boiling range between 122 and 400° F.

Natural Gas: A gaseous mixture of hydrocarbon compounds, primarily methane, used as a fuel for electricity generation and in a variety of ways in buildings, and as raw material input and fuel for industrial processes.

Natural Gas, Dry: Natural gas which remains after: 1) the liquefiable hydrocarbon portion has been removed from the gas stream (i.e., gas after lease, field, and/or plant separation); and 2) any volumes of nonhydrocarbon gases have been removed where they occur in sufficient quantity to render the gas unmarketable. *Note:* Dry natural gas is also known as consumer-grade natural gas. The parameters for measurement are cubic feet at 60 degrees Fahrenheit and 14.73 pounds per square inch absolute.

Natural Gas (Dry) Production: The process of producing consumer-grade natural gas. Natural gas withdrawn from reservoirs is reduced by volumes used at the production (lease) site and by processing losses. Volumes used at the production site include 1) the volume returned to reservoirs in cycling, repressuring of oil reservoirs, and conservation operations; and 2) gas vented and flared. Processing losses include 1) nonhydrocarbon gases (e.g., water vapor, carbon dioxide, helium, hydrogen sulfide, and nitrogen) removed from the gas stream; and 2) gas converted to liquid form, such as lease condensate and plant liquids. Volumes of dry gas withdrawn from gas storage reservoirs are not considered part of production. Dry natural gas production equals marketed production less extraction loss.

Natural Gas Marketed Production: Gross withdrawals of natural gas from production reservoirs, less gas used for reservoir repressuring; nonhydrocarbon gases removed in treating and processing operations; and quantities vented and flared.

Natural Gas Plant Liquids (NGPL): Natural gas liquids recovered from natural gas in processing plants and, in some situations, from natural gas field facilities, as well as those extracted by fractionators. Natural gas plant liquids are defined according to the published specifications of the Gas Processors Association and the American

Society for Testing and Material as follows: ethane, propane, normal butane, isobutane, pentanes plus, and other products from natural gas processing plants (i.e., products meeting the standards for finished petroleum products produced at natural gas processing plants, such as finished motor gasoline, finished aviation gasoline, special naphthas, kerosene, distillate fuel oil, and miscellaneous products).

Natural Gas Wellhead Price: The wellhead price of natural gas is calculated by dividing the total reported value at the wellhead by the total quantity produced as reported by the appropriate agencies of individual producing States and the U.S. Minerals Management Service. The price includes all costs prior to shipment from the lease, including gathering and compression costs, in addition to State production, severance, and similar charges.

Natural Gasoline: A mixture of hydrocarbons (mostly pentanes and heavier) extracted from natural gas that meets vapor pressure, end-point, and other specifications for natural gasoline set by the Gas Processors Association. Includes isopentane, which is a saturated branch-chain hydrocarbon obtained by fractionation of natural gasoline or isomerization of normal pentane.

Net Summer Capacity: The maximum output, commonly expressed in **kilowatts** (kW) or megawatts (MW), that generating equipment can supply to system load, as demonstrated by a multi-hour test, at the time of summer peak demand (period of June 1 through September 30). 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.

Nominal Dollars: A measure used to express **nominal price**.

Nominal Price: The price paid for a product or service at the time of the transaction. Nominal prices are those that have not been adjusted to remove the effect of changes in the purchasing power of the dollar; they reflect buying power in the year in which the transaction occurred.

Non-Biomass Waste: Material of non-biological origin that is a byproduct or a discarded product. "Non-biomass waste" includes municipal solid waste from non-biogenic sources, such as plastics, and tire-derived fuels.

Nonhydrocarbon Gases: Typical nonhydrocarbon gases that may be present in reservoir natural gas are carbon dioxide, helium, hydrogen sulfide, and nitrogen.

Nonrenewable Fuels: Fuels that cannot be easily made or "renewed," such as **crude oil, natural gas, and coal**.

Nuclear Electric Power (Nuclear Power): Electricity generated by the use of the thermal energy released from the fission of nuclear fuel in a reactor.

Nuclear Electric Power Plant: A single-unit or multiunit facility in which heat produced in one or more reactors by the fissioning of nuclear fuel is used to drive one or more steam turbines.

Nuclear Reactor: An apparatus in which a nuclear fission chain reaction can be initiated, controlled, and sustained at a specific rate. A reactor includes fuel (fissionable material), moderating material to control the rate of fission, a heavy-walled pressure vessel to house reactor components, shielding to protect personnel, a system to conduct heat away from the reactor, and instrumentation for monitoring and controlling the reactor's systems.

OECD: See **Organization for Economic Cooperation and Development**.

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**.

OPEC: See **Organization of the Petroleum Exporting Countries**.

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, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovakia, South Korea, Spain, Sweden, Switzerland, Turkey, United Kingdom, and United States and its territories (Guam, Puerto Rico, and the Virgin Islands).

Organization of the Petroleum Exporting Countries (OPEC): An intergovernmental organization whose stated objective is to "coordinate and unify the petroleum policies of member countries." It was created at the Baghdad Conference on September 10–14, 1960. Current members (with years of membership) include Algeria (1969–present), Angola (2007–present), Ecuador (1973–1992 and 2007–present), Iran (1960–present), Iraq (1960–present), Kuwait (1960–present), Libya (1962–present), Nigeria (1971–present), Qatar (1961–present), Saudi Arabia

(1960–present), United Arab Emirates (1967–present), and Venezuela (1960–present). Countries no longer members of OPEC include Gabon (1975–1994) and Indonesia (1962–2008).

Oxygenates: Substances which, when added to gasoline, increase the amount of oxygen in that gasoline blend. **Ethanol, Methyl Tertiary Butyl Ether (MTBE), Ethyl Tertiary Butyl Ether (ETBE),** and methanol are common oxygenates.

PAD Districts: Petroleum Administration for Defense Districts. Geographic aggregations of the 50 States and the District of Columbia into five districts for the Petroleum Administration for Defense in 1950. The districts were originally instituted for economic and geographic reasons as Petroleum Administration for War (PAW) Districts, which were established in 1942.

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

Petrochemical Feedstocks: Chemical feedstocks derived from petroleum principally for the manufacture of chemicals, synthetic rubber, and a variety of plastics.

Petroleum: A broadly defined class of liquid hydrocarbon mixtures. Included are crude oil, lease condensate, unfinished oils, refined products obtained from the processing of crude oil, and natural gas plant liquids. Note: Volumes of finished petroleum products include nonhydrocarbon compounds, such as additives and detergents, after they have been blended into the products.

Petroleum Coke: See **Coke, Petroleum**.

Petroleum Consumption: See **Products Supplied (Petroleum)**.

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 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.

Primary Energy: Energy in the form that it is first accounted for in a statistical energy balance, before any transformation to secondary or tertiary forms of energy. For example, **coal** can be converted to synthetic gas, which can be converted to **electricity**; in this example, coal is primary energy, synthetic gas is secondary energy, and electricity is tertiary energy. See **Primary Energy Production** and **Primary Energy Consumption**.

Primary Energy Consumption: Consumption of **primary energy**. (Energy sources that are produced from other energy sources—e.g., **coal coke** from **coal**—are included in primary energy consumption only if their energy content has not already been included as part of the original energy source. Thus, U.S. primary energy consumption does include net imports of coal coke, but not the coal coke produced from domestic coal.) The U.S. Energy Information Administration includes the following in U.S. primary energy consumption: coal consumption; coal coke net imports; **petroleum consumption (petroleum products supplied**, including **natural gas plant liquids** and **crude oil** burned as fuel); **dry natural gas**—excluding **supplemental gaseous fuels**—consumption; **nuclear electricity net generation** (converted to Btu using the nuclear plants **heat rate**); **conventional hydroelectricity** net generation (converted to Btu using the fossil-fueled plants heat rate); **geothermal** electricity net generation (converted to Btu using the geothermal plants heat rate), and geothermal heat pump energy and geothermal direct use energy; **solar thermal** and **photovoltaic** electricity net generation (converted to Btu using the fossil-fueled plants heat rate), and solar thermal direct use energy; **wind** electricity net generation (converted to Btu using the fossil-fueled plants heat rate); **wood and wood-derived fuels** consumption; **biomass waste** consumption; **fuel ethanol** and **biodiesel** consumption; losses and co-products from the production of fuel ethanol and biodiesel; and

electricity net imports (converted to Btu using the electricity heat content of 3,412 Btu per kilowatthour).

Primary Energy Production: Production of **primary energy**. The U.S. Energy Information Administration includes the following in U.S. primary energy production: **coal** production, **waste coal** supplied, and coal refuse recovery; **crude oil** and **lease condensate** production; **natural gas plant liquids** production; **dry natural gas**—excluding **supplemental gaseous fuels**—production; **nuclear electricity net generation** (converted to Btu using the nuclear plants **heat rate**); **conventional hydroelectricity** net generation (converted to Btu using the fossil-fueled plants heat rate); **geothermal** electricity net generation (converted to Btu using the geothermal plants heat rate), and geothermal heat pump energy and geothermal direct use energy; **solar thermal** and **photovoltaic** electricity net generation (converted to Btu using the fossil-fueled plants heat rate), and solar thermal direct use energy; **wind** electricity net generation (converted to Btu using the fossil-fueled plants heat rate); **wood and wood-derived fuels** consumption; **biomass waste** consumption; and **biofuels** feedstock.

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.

Products Supplied (Petroleum): Approximately represents consumption of petroleum products because it measures the disappearance of these products from primary sources, i.e., refineries, natural gas-processing plants, blending plants, pipelines, and bulk terminals. In general, product supplied of each product in any given period is computed as follows: field production, plus refinery 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.

Propane: A normally gaseous straight-chain hydrocarbon (C₃H₈). It is a colorless paraffinic gas that boils at a temperature of -43.67° F. It is extracted from natural gas or refinery gas streams. It includes all products designated in ASTM Specification D1835 and Gas Processors Association Specifications for commercial propane and HD-5 propane.

Propylene: An olefinic hydrocarbon (C₃H₆) recovered from refinery or petrochemical processes.

Real Dollars: These are dollars that have been adjusted for inflation. See **Real Price**.

Real Price: A price that has been adjusted to remove the effect of changes in the purchasing power of the dollar. Real prices, which are expressed in constant dollars, usually reflect buying power relative to a base year.

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 and Blender Net Inputs: Raw materials, **unfinished oils**, and blending components processed at refineries, or blended at refineries or petroleum storage terminals to produce finished **petroleum products**. Included are gross inputs of **crude oil**, **natural gas plant liquids**, other **hydrocarbon** raw materials, **hydrogen**, **oxygenates** (excluding **fuel ethanol**), and renewable fuels (including fuel ethanol). Also included are net inputs of unfinished oils, **motor gasoline blending components**, and **aviation gasoline blending components**. Net inputs are calculated as gross inputs minus gross production. Negative net inputs indicate gross inputs are less than gross production. Examples of negative net inputs include reformulated gasoline blendstock for oxygenate blending (RBOB) produced at refineries for shipment to blending terminals, and unfinished oils produced and added to inventory in advance of scheduled maintenance of a refinery crude oil distillation unit.

Refinery and Blender Net Production: Liquefied refinery gases, and finished **petroleum products** produced at a **refinery** or petroleum storage terminal blending facility. Net production equals gross production minus gross inputs. Negative net production indicates gross production is less than gross inputs for a finished petroleum product. Examples of negative net production include reclassification of one finished product to another finished product, or reclassification of a finished product to **unfinished oils** or blending components.

Refinery (Petroleum): An installation that manufactures finished petroleum products from crude oil, unfinished oils, natural gas liquids, other hydrocarbons, and alcohol.

Refuse Mine: A surface site where **coal** is recovered from previously mined coal. It may also be known as a silt bank, culm bank, refuse bank, slurry dam, or dredge operation.

Refuse Recovery: The recapture of **coal** from a **refuse mine** or the coal recaptured by that process. The resulting product has been cleaned to reduce the concentration of noncombustible materials.

Renewable Energy: Energy obtained from sources that are essentially inexhaustible (unlike, for example, the **fossil fuels**, of which there is a finite supply). Renewable sources of energy include **conventional hydroelectric power**, **biomass**, **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. *Note:* Various EIA programs differ in sectoral coverage for more information see <http://www.eia.doe.gov/neic/datadefinitions/Guideforwebres.html>. See **End-Use Sectors** and **Energy-Use Sectors**.

Residual Fuel Oil: The heavier oils that remain after the distillate fuel oils and lighter hydrocarbons are distilled away in refinery operations and that conform to ASTM Specifications D396 and 975. Included are No. 5, a residual fuel oil of medium viscosity; Navy Special, for use in steam-powered vessels in government service and in shore power plants; and No. 6, which includes Bunker C fuel oil and is used for commercial and industrial heating, for electricity generation, and to power ships. Imports of residual fuel oil include imported crude oil burned as fuel.

Road Oil: Any heavy petroleum oil, including residual asphaltic oil used as a dust palliative and surface treatment on roads and highways. It is generally produced in six grades, from 0, the most liquid, to 5, the most viscous.

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

Short Ton (Coal): A unit of weight equal to 2,000 pounds.

SIC (Standard Industrial Classification): A set of codes developed by the U.S. Office of Management and Budget which categorizes industries into groups with similar economic activities. Replaced by **NAICS (North American Industry Classification System)**.

Solar Energy: See **Solar Thermal Energy** and **Photovoltaic Energy**.

Solar Thermal Energy: The radiant energy of the sun that can be converted into other forms of energy, such as heat or electricity.

Special Naphthas: All finished products within the naphtha boiling ranges that are used as paint thinner, cleaners or solvents. Those products are refined to a specified flash point. Special naphthas include all commercial hexane and cleaning solvents conforming to ASTM Specifications D1836 and D484, respectively. Naphthas to be blended or marketed as motor gasoline or aviation gasoline, or that are to be used as petrochemical and synthetic natural gas (SNG) feedstocks, are excluded.

Station Use: Energy that is used to operate an **electric power plant**. It includes energy consumed for plant lighting, power, and auxiliary facilities, regardless of whether the energy is produced at the plant or comes from another source.

Steam Coal: All nonmetallurgical coal.

Steam-Electric Power Plant: A plant in which the prime mover is a steam turbine. The steam used to drive the turbine is produced in a boiler where fossil fuels are burned.

Still Gas (Refinery Gas): Any form or mixture of gas produced in refineries by distillation, cracking, reforming, and other processes. The principal constituents are methane, ethane, ethylene, normal butane, butylene, propane, and propylene. It is used primarily as refinery fuel and, petrochemical feedstock.

Stocks: See **Coal Stocks**, **Crude Oil Stocks**, or **Petroleum Stocks, Primary**.

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

Subbituminous Coal: A coal whose properties range from those of **lignite** to those of **bituminous coal** and used primarily as fuel for steam-electric power generation. It may be dull, dark brown to black, soft and crumbly, at the lower end of the range, to bright, jet black, hard, and relatively strong, at the upper end. 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 **short ton** on a moist, mineral-matter-free basis. The heat content of subbituminous coal consumed in the United States averages 17 to 18 million Btu per ton, on the as-received basis (i.e., containing both inherent moisture and mineral matter).

Supplemental Gaseous Fuels: Synthetic natural gas, propane-air, coke oven gas, refinery gas, biomass gas, air injected for Btu stabilization, and manufactured gas commingled and distributed with natural gas.

Synthetic Natural Gas (SNG): (Also referred to as substitute natural gas) A manufactured product, chemically similar in most respects to **natural gas**, resulting from the conversion or reforming of **hydrocarbons** that may easily be substituted for or interchanged with pipeline-quality natural gas.

Thermal Conversion Factor: A factor for converting data between physical units of measure (such as **barrels**, **cubic feet**, or **short tons**) and thermal units of measure (such as **British thermal units**, calories, or joules); or for converting data between different thermal units of measure. See **Btu Conversion Factor**.

Transportation Sector: An energy-consuming sector that consists of all vehicles whose primary purpose is transporting people and/or goods from one physical location to another. Included are automobiles; trucks; buses; motorcycles; trains, subways, and other rail vehicles; aircraft; and ships, barges, and other waterborne vehicles. Vehicles whose primary purpose is not transportation (e.g., construction cranes and bulldozers, farming vehicles, and warehouse

tractors and forklifts) are classified in the sector of their primary use. Note: Various EIA programs differ in sectoral coverage—for more information see <http://www.eia.doe.gov/neic/datadefinitions/Guideforwebtrans.html> See **End-Use Sectors** and **Energy-Use Sectors**.

Underground Storage: The storage of natural gas in underground reservoirs at a different location from which it was produced.

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.

Union of Soviet Socialist Republics (U.S.S.R.): A political entity that consisted of 15 constituent republics: Armenia, Azerbaijan, Belarus, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan. The U.S.S.R. ceased to exist as of December 31, 1991.

United States: The 50 States and the District of Columbia. Note: The United States has varying degrees of jurisdiction over a number of territories and other political entities outside the 50 States and the District of Columbia, including Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, Johnston Atoll, Midway Islands, Wake Island, and the Northern Mariana Islands. EIA data programs may include data from some or all of these areas in U.S. totals. For these programs, data products will contain notes explaining the extent of geographic coverage included under the term "United States."

Useful Thermal Output: The thermal energy made available in a combined-heat-and-power system for use in any industrial or commercial process, heating or cooling application, or delivered to other end users, i.e., total thermal energy made available for processes and applications other than electrical generation.

U.S.S.R.: See **Union of Soviet Socialist Republics (U.S.S.R.)**.

Vented Natural Gas: Gas released into the air on the production site or at processing plants.

Vessel Bunkering: Includes sales for the fueling of commercial or private boats, such as pleasure craft, fishing boats, tugboats, and ocean-going vessels, including vessels operated by oil companies. Excluded are volumes sold to the U.S. Armed Forces.

Waste Coal: Usable material that is a byproduct of previous **coal** processing operations. Waste coal is usually

composed of mixed coal, soil, and rock (mine waste). Most waste coal is burned as-is in unconventional fluidized-bed combustors. For some uses, waste coal may be partially cleaned by removing some extraneous noncombustible constituents. Examples of waste coal include fine coal, coal obtained from a refuse bank or slurry dam, anthracite culm, bituminous gob, and lignite waste.

Waste: See **Biomass Waste** and **Non-Biomass Waste**.

Watt (W): The unit of electrical power equal to one ampere under a pressure of one volt. A watt is equal to 1/746 horsepower.

Watt-hour (Wh): The electrical energy unit of measure equal to one watt of power supplied to, or taken from, an electric circuit steadily for one hour.

Waxes: Solid or semisolid material derived from petroleum distillates or residues. Waxes are light-colored, more or less translucent crystalline masses, slightly greasy to the touch, consisting of a mixture of solid hydrocarbons in which the paraffin series predominates. Included are all

marketable waxes, whether crude scale or fully refined. Waxes are used primarily as industrial coating for surface protection.

Wellhead Price: The value of crude oil or natural gas at the mouth of the well.

Wind Energy: Kinetic energy present in wind motion that can be converted to mechanical energy for driving pumps, mills, and electric power generators.

Wood and Wood-Derived Fuels: Wood and products derived from wood that are used as fuel, including round wood (cord wood), limb wood, wood chips, bark, sawdust, forest residues, charcoal, paper pellets, railroad ties, utility poles, **black liquor**, red liquor, sludge wood, spent sulfite liquor, and other wood-based solids and liquids.

Working Gas: The volume of gas in a reservoir that is in addition to the base gas. It may or may not be completely withdrawn during any particular withdrawal season. Conditions permitting, the total working capacity could be used more than once during any season.

