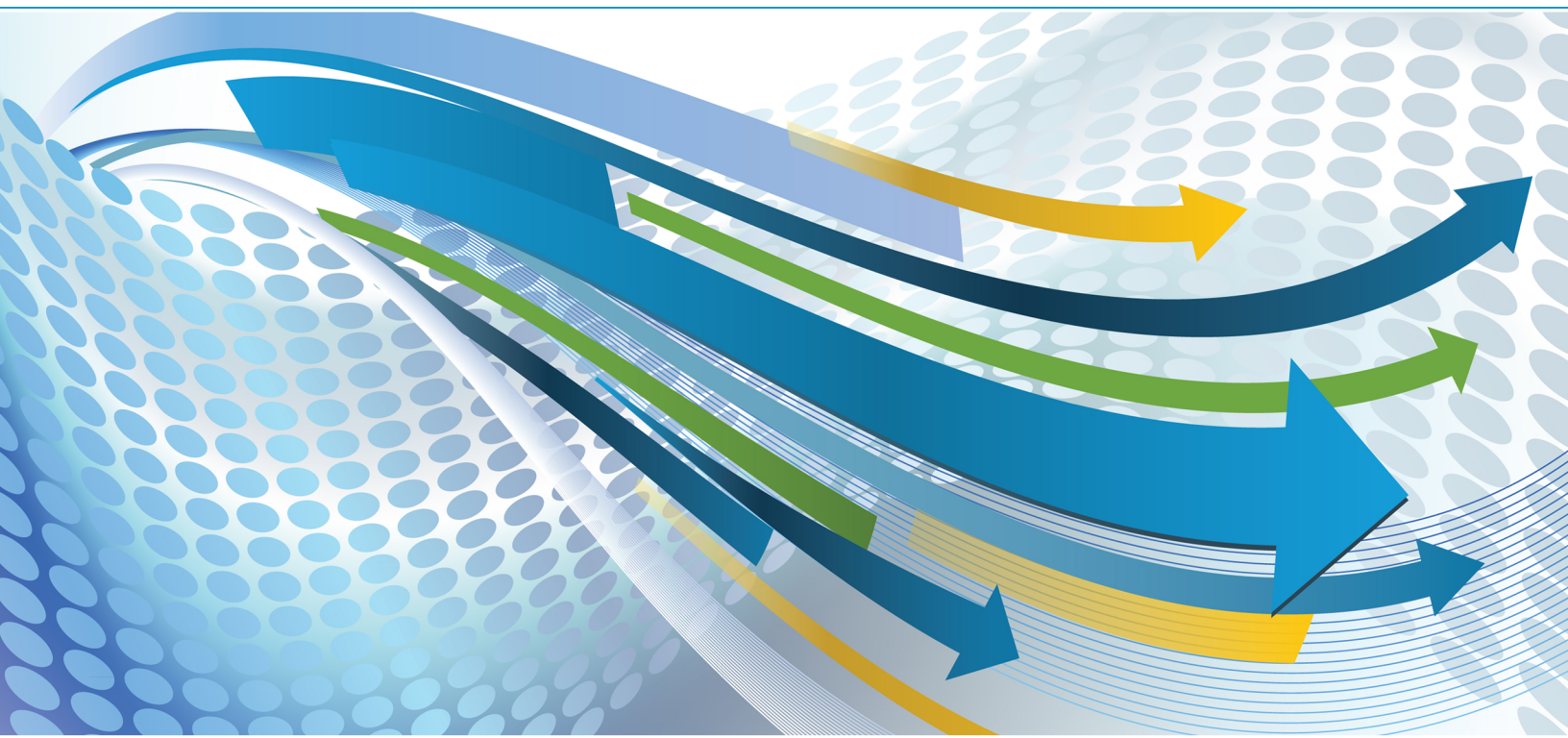


November 2014

Monthly Energy Review



Independent Statistics & Analysis
U.S. Energy Information
Administration

www.eia.gov/mer

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.

Related Monthly Publications: Other monthly EIA reports are *Petroleum Supply Monthly*, *Petroleum Marketing Monthly*, *Natural Gas Monthly*, and *Electric Power Monthly*. For more information, contact EIA's Office of Communications via email at infoctr@eia.gov.

Important Notes About the Data

Data Displayed: For tables beginning in 1949, annual data are usually displayed only in 5-year increments between 1950 and 2000 in the tables in Portable Document Format (PDF) files; however, all annual data are shown in the Excel and comma-separated values (CSV) files. Also, only two to three years of monthly data are displayed in the PDF files; however, for many series, monthly data beginning with January 1973 are available in the Excel and CSV files.

Comprehensive Changes: Each month, most MER tables and figures carry a new month of data, which is usually preliminary (and sometimes estimated or even forecast) and likely to be revised in the succeeding month.

Annual Data From 1949: In 2013, EIA expanded the MER to incorporate annual data as far back as 1949 in those data tables that were previously published in both the *Annual Energy Review (AER)* and MER. Analysts may wish to use the data in this report in conjunction with the AER which offers annual data beginning in 1949 for many related supplemental data series that are not found in the MER. The AER is available at <http://www.eia.gov/totalenergy/data/annual>.

Electronic Access

The MER is available on EIA's website in a variety of formats at <http://www.eia.gov/totalenergy/data/monthly>.

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

Note: PDF files display selected annual and monthly data; Excel and CSV files display all available annual and monthly data, often at a greater level of precision than the PDF files.

Timing of Release: The MER is posted on the EIA website no later than the last work day of the month at <http://www.eia.gov/totalenergy/data/monthly>.

Monthly Energy Review

November 2014

U.S. Energy Information Administration
Office of Energy Statistics
U.S. Department of Energy
Washington, DC 20585

This report was prepared by the U.S. Energy Information Administration (EIA), the statistical and analytical agency within the U.S. Department of Energy. By law, EIA's data, analyses, and forecasts are independent of approval by any other officer or employee of the United States Government. The views in this report therefore should not be construed as representing those of the Department of Energy or other federal agencies.

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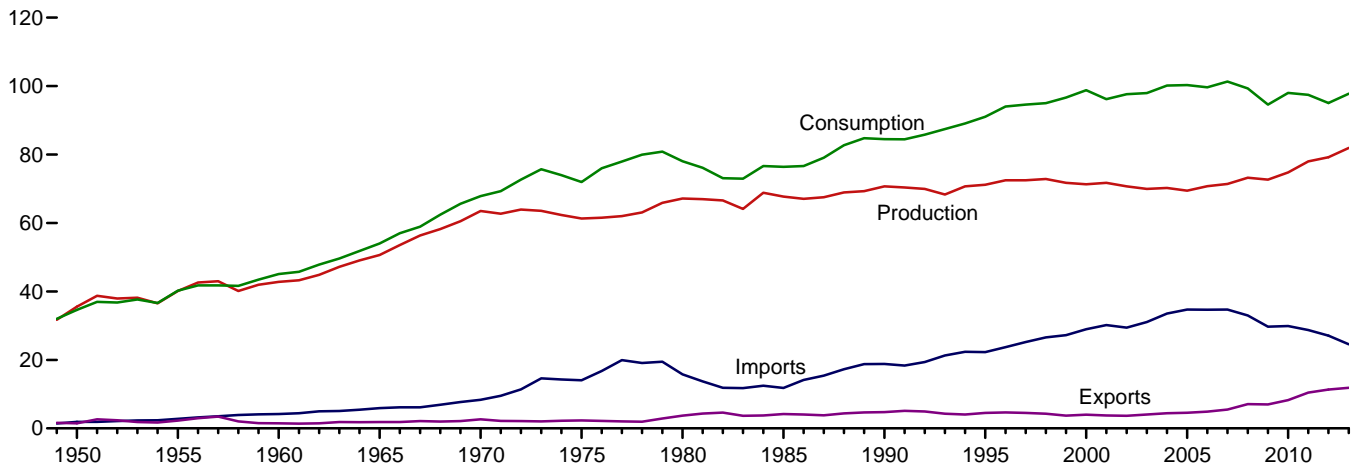
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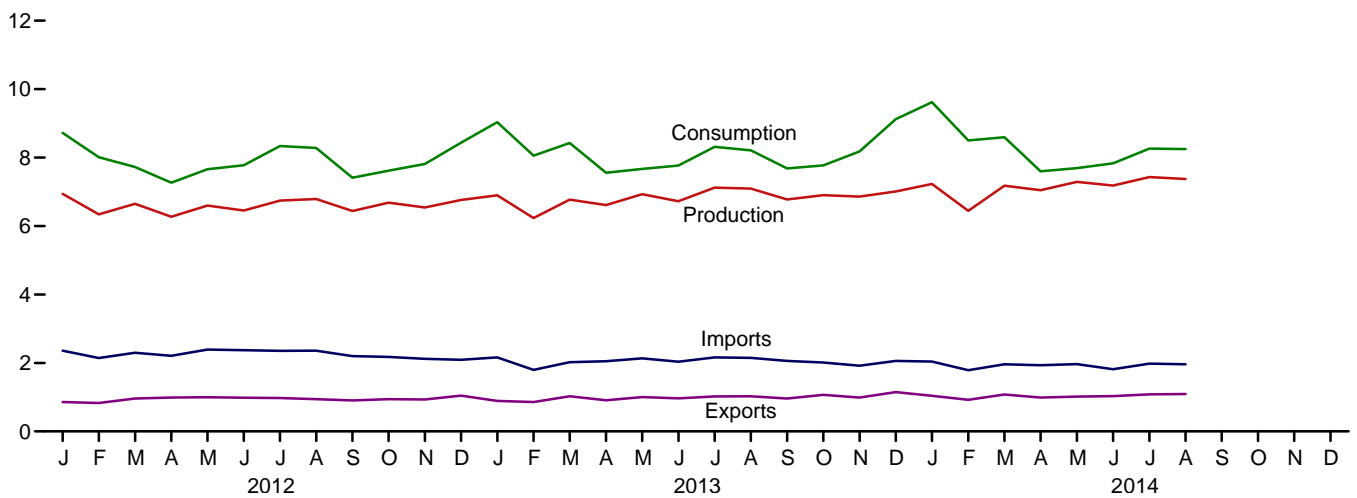
1. Energy Overview

Figure 1.1 Primary Energy Overview
(Quadrillion Btu)

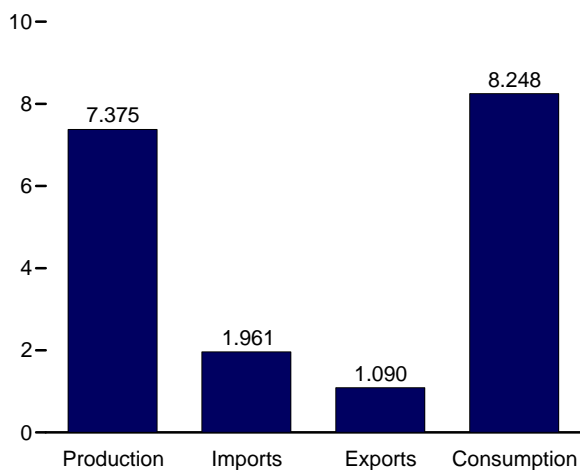
Overview, 1949–2013



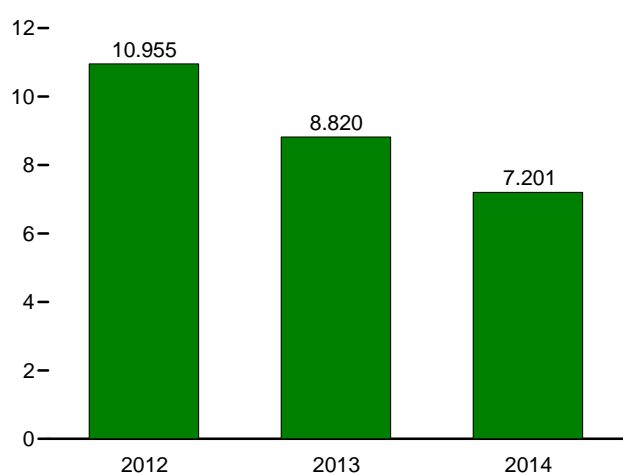
Overview, Monthly



Overview, August 2014



Net Imports, January–August



Web Page: <http://www.eia.gov/totalenergy/data/monthly/#summary>.
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
1950 Total	32.563	0.000	2.978	35.540	1.913	1.465	0.448	-1.372	31.632	0.000	2.978	34.616
1955 Total	37.364	.000	2.784	40.148	2.790	2.286	.504	-.444	37.410	.000	2.784	40.208
1960 Total	39.869	.006	2.928	42.803	4.188	1.477	2.710	-.427	42.137	.006	2.928	45.086
1965 Total	47.235	.043	3.396	50.674	5.892	1.829	4.063	-.722	50.577	.043	3.396	54.015
1970 Total	59.186	.239	4.070	63.495	8.342	2.632	5.709	-1.367	63.522	.239	4.070	67.838
1975 Total	54.733	1.900	4.687	61.320	14.032	2.323	11.709	-1.065	65.357	1.900	4.687	71.965
1980 Total	59.008	2.739	5.428	67.175	15.796	3.695	12.101	-1.210	69.828	2.739	5.428	78.067
1985 Total	57.539	4.076	6.084	67.698	11.781	4.196	7.584	1.110	66.093	4.076	6.084	76.392
1990 Total	58.560	6.104	6.041	70.705	18.817	4.752	14.065	-.284	72.332	6.104	6.041	84.485
1995 Total	57.540	7.075	6.558	71.174	22.260	4.511	17.750	2.105	77.259	7.075	6.560	91.029
2000 Total	57.366	7.862	6.104	71.332	28.973	4.006	24.967	2.515	84.731	7.862	6.106	98.814
2001 Total	58.541	8.029	5.164	71.735	30.157	3.771	26.386	-1.953	82.902	8.029	5.163	96.168
2002 Total	56.834	8.145	5.734	70.713	29.408	3.669	25.739	1.193	83.699	8.145	5.729	97.645
2003 Total	56.033	7.960	5.947	69.939	31.061	4.054	27.007	.998	84.014	7.960	5.948	97.943
2004 Total	55.942	8.223	6.069	70.234	33.544	4.434	29.110	.817	85.819	8.223	6.081	100.161
2005 Total	55.044	8.161	6.229	69.434	34.709	4.560	30.149	.698	85.794	8.161	6.242	100.282
2006 Total	55.938	8.215	6.599	70.751	34.679	4.873	29.806	-.929	84.702	8.215	6.649	99.629
2007 Total	56.436	8.459	6.528	71.422	34.704	5.483	29.220	.675	86.211	8.459	6.541	101.317
2008 Total	57.587	8.426	7.219	73.233	32.993	7.063	25.931	.129	83.551	8.426	7.202	99.292
2009 Total	56.662	8.355	7.655	72.672	29.706	6.966	22.740	-.817	78.487	8.355	7.638	94.596
2010 Total	58.230	8.434	8.128	74.793	29.877	6.234	21.643	1.581	81.412	8.434	8.081	98.016
2011 Total	60.548	8.269	9.170	77.986	28.720	10.457	18.263	1.212	79.991	8.269	9.074	97.461
2012 January	R 5.409	.758	.772	R 6.939	2.361	.858	1.502	R .280	R 7.201	.758	.751	R 8.721
February	R 4.979	.669	.693	R 6.341	2.142	.830	1.313	R .357	R 6.651	.669	.681	R 8.011
March	R 5.212	.647	.792	R 6.651	2.296	.960	1.336	R -.262	R 6.283	.647	.785	R 7.725
April	R 4.923	.585	.765	R 6.273	2.211	.987	1.224	R -.232	R 5.907	.585	.761	R 7.266
May	R 5.141	.651	.806	R 6.597	2.392	.999	1.393	R -.331	R 6.191	.651	.803	R 7.659
June	R 4.996	.683	.772	R 6.451	2.371	.985	1.386	R -.058	R 6.310	.683	.772	R 7.779
July	R 5.277	.724	.743	R 6.744	2.354	.973	1.381	R .213	R 6.851	.724	.744	R 8.338
August	R 5.349	.729	.712	R 6.791	2.361	.940	1.420	R .068	R 6.813	.729	.718	R 8.279
September	R 5.119	.676	.644	R 6.439	2.199	.906	1.293	R -.320	R 6.079	.676	.643	R 7.412
October	R 5.378	.626	.678	R 6.681	2.176	.944	1.232	R -.295	R 6.297	.626	.683	R 7.618
November	R 5.265	.594	.683	R 6.543	2.119	.930	1.189	R .080	R 6.521	.594	.684	R 7.812
December	R 5.276	.719	.766	R 6.761	2.093	1.043	1.050	R .626	R 6.944	.719	.763	R 8.437
Total	R 62.324	8.062	8.826	R 79.212	27.075	11.356	15.719	R .127	R 78.048	8.062	8.786	R 95.058
2013 January	R 5.357	.748	.794	R 6.899	2.160	.888	1.272	R .862	R 7.478	.748	.793	R 9.033
February	R 4.885	.644	.705	R 6.234	1.800	.857	.943	R .878	R 6.692	.644	.706	R 8.056
March	R 5.341	.660	.770	R 6.771	2.022	1.024	.997	R .659	R 6.982	.660	.771	R 8.427
April	R 5.209	.595	.808	R 6.612	2.050	.910	1.140	R -.195	R 6.141	.595	.810	R 7.557
May	R 5.415	.659	.857	R 6.931	2.133	1.002	1.131	R -.396	R 6.136	.659	.857	R 7.667
June	R 5.209	.696	.821	R 6.726	2.034	.965	1.069	R -.027	R 6.231	.696	.823	R 7.767
July	R 5.570	.739	.813	R 7.123	2.163	1.020	1.143	R .051	R 6.747	.739	.812	R 8.316
August	R 5.611	.748	.737	R 7.095	2.149	1.025	1.125	R -.009	R 6.709	.748	.735	R 8.211
September	R 5.394	.690	.695	R 6.778	2.058	.962	1.097	R -.193	R 6.277	.690	.699	R 7.681
October	R 5.501	.662	.740	R 6.903	2.011	1.069	.941	R -.072	R 6.354	.662	.743	R 7.772
November	R 5.422	.681	.759	R 6.861	1.917	.990	.928	R .387	R 6.727	.681	.754	R 8.176
December	R 5.462	.747	.799	R 7.008	2.058	1.147	.912	R 1.201	R 7.566	.747	.795	R 9.121
Total	R 64.376	8.268	9.298	R 81.942	24.555	11.858	12.697	R 3.145	R 80.041	8.268	9.298	R 97.785
2014 January	R 5.643	.766	.819	R 7.227	2.041	1.040	1.000	R 1.392	R 8.029	.766	.812	R 9.620
February	R 5.088	.656	.702	R 6.446	1.788	.921	.866	R 1.187	R 7.135	.656	.699	R 8.499
March	R 5.676	.654	.849	R 7.179	1.963	1.076	.886	R .528	R 7.088	.654	.840	R 8.593
April	R 5.597	.591	.857	R 7.045	1.935	.988	.947	R -.391	R 6.146	.591	.854	R 7.601
May	R 5.774	.660	.857	R 7.291	1.966	1.017	.949	R -.546	R 6.164	.660	.856	R 7.693
June	R 5.614	.714	.853	R 7.182	1.815	1.032	.783	R -.133	R 6.256	.714	.848	R 7.832
July	R 5.858	.754	.819	R 7.430	1.978	1.081	.897	R -.063	R 6.682	.754	.812	R 8.264
August	R 5.879	.745	.751	R 7.375	1.961	1.090	.871	R .002	R 6.734	.745	.751	R 8.248
8-Month Total	45.128	5.540	6.508	57.175	15.446	8.245	7.201	1.974	54.233	5.540	6.474	66.350
2013 8-Month Total	42.597	5.489	6.306	54.392	16.512	7.691	8.820	1.822	53.116	5.489	6.307	65.034
2012 8-Month Total	41.286	5.447	6.055	52.788	18.488	7.533	10.955	.035	52.207	5.447	6.014	63.778

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

^b See Tables 10.1–10.2c for notes on series components and estimation; and see Note, "Renewable Energy Production and Consumption," at end of Section 10.

^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.

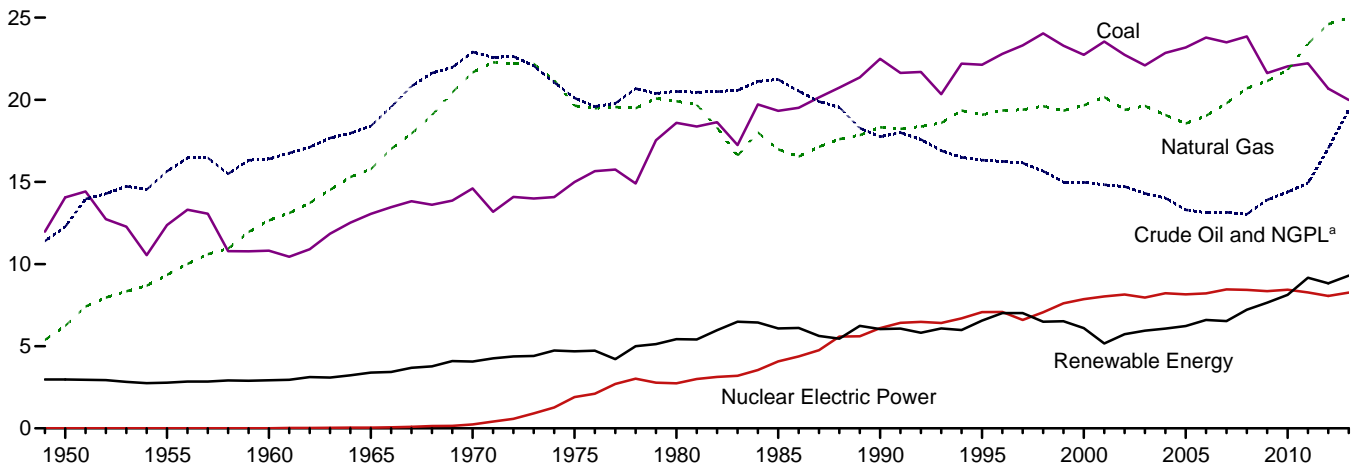
Notes: • See "Primary Energy," "Primary Energy Production," and "Primary Energy Consumption," in Glossary. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#summary> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.

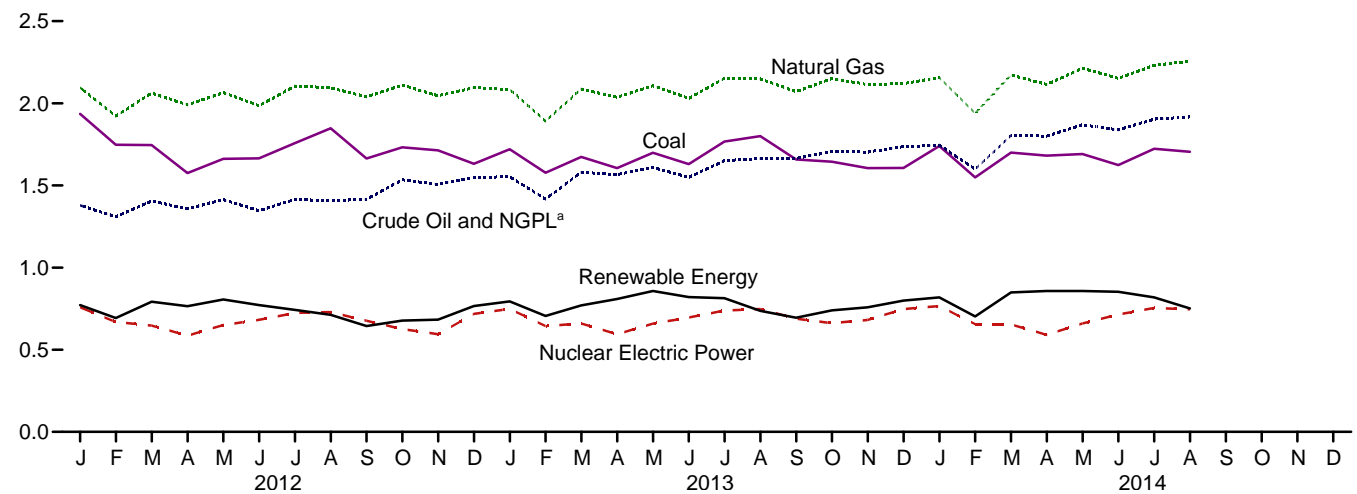
Sources: • **Production:** Table 1.2. • **Trade:** Tables 1.4a and 1.4b. • **Stock Change and Other:** Calculated as consumption minus production and net imports. • **Consumption:** Table 1.3.

Figure 1.2 Primary Energy Production
(Quadrillion Btu)

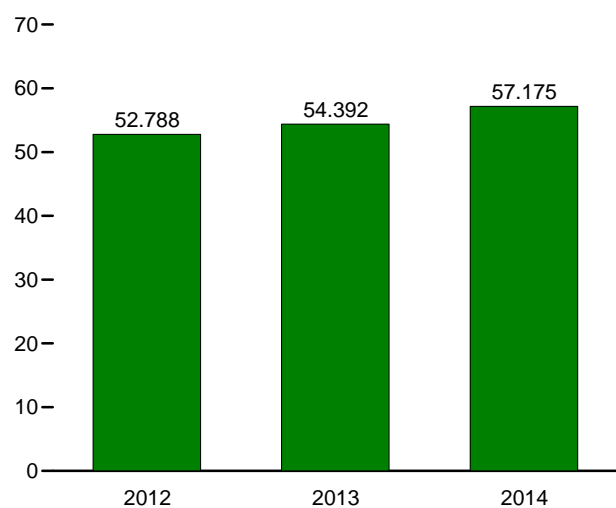
By Source, 1949–2013



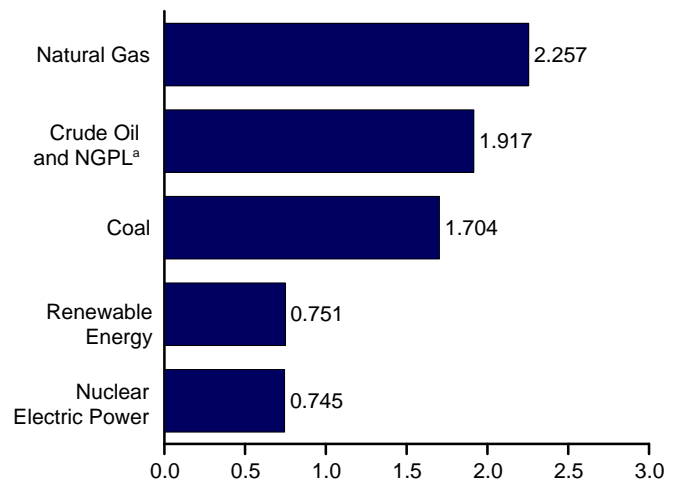
By Source, Monthly



Total, January–August



By Source, August 2014



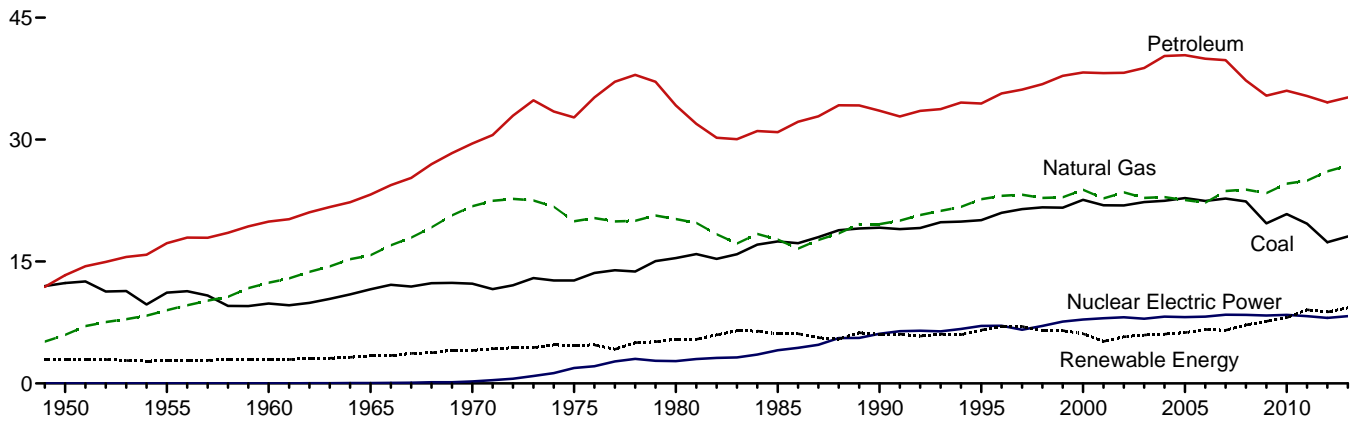
^a Natural gas plant liquids.

Web Page: <http://www.eia.gov/totalenergy/data/monthly/#summary>.

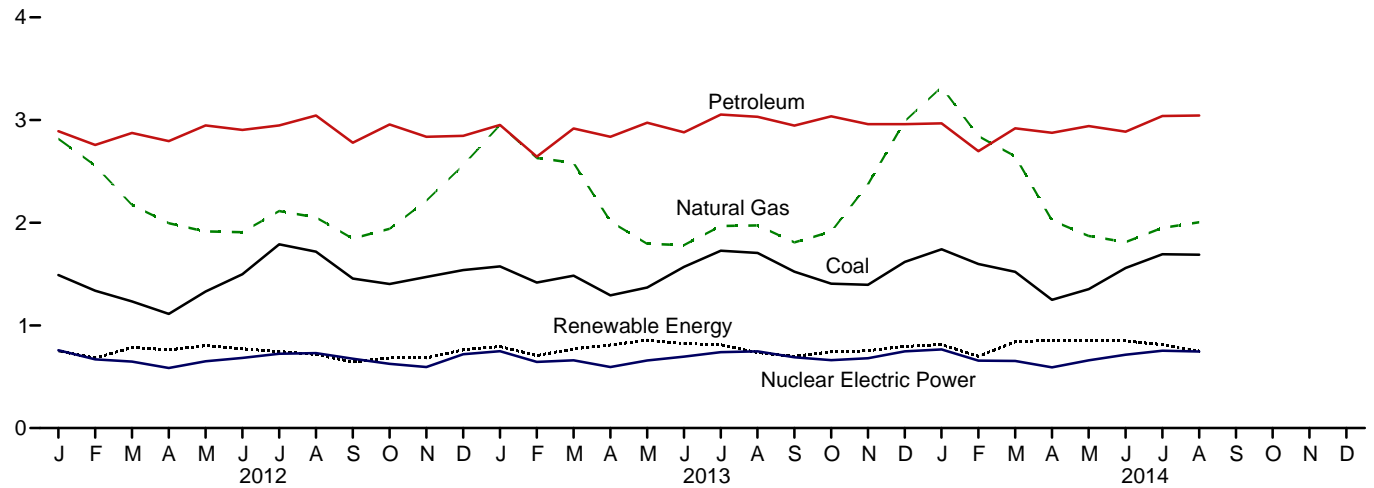
Source: Table 1.2.

Figure 1.3 Primary Energy Consumption
(Quadrillion Btu)

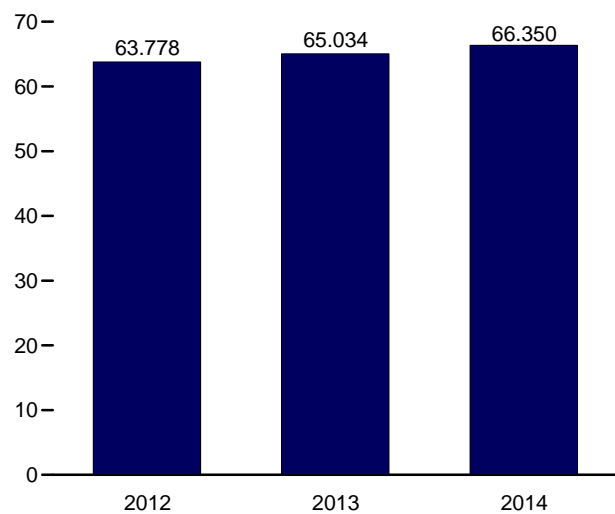
By Source,^a 1949–2013



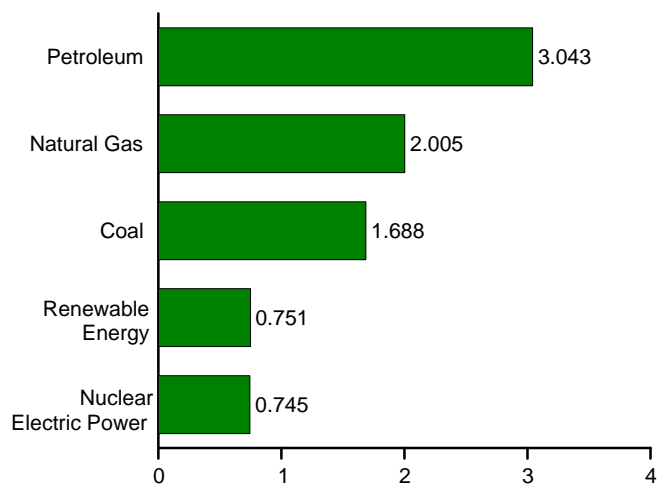
By Source,^a Monthly



Total, January–August



By Source,^a August 2014



^a Small quantities of net imports of coal coke and electricity are not shown.
Web Page: <http://www.eia.gov/totalenergy/data/monthly/#summary>.
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	Petroleum ^c	Total ^d		Hydro-electric Power ^e	Geo-thermal	Solar/PV	Wind	Bio-mass	Total	
1950 Total	12.347	5.968	13.315	31.632	0.000	1.415	NA	NA	NA	1.562	2.978	34.616
1955 Total	11.167	8.998	17.255	37.410	.000	1.360	NA	NA	NA	1.424	2.784	40.208
1960 Total	9.838	12.385	19.919	42.137	.006	1.608	(s)	NA	NA	1.320	2.928	45.086
1965 Total	11.581	15.769	23.246	50.577	.043	2.059	.002	NA	NA	1.335	3.396	54.015
1970 Total	12.265	21.795	29.521	63.522	.239	2.634	.006	NA	NA	1.431	4.070	67.838
1975 Total	12.663	19.948	32.732	65.357	1.900	3.155	.034	NA	NA	1.499	4.687	71.965
1980 Total	15.423	20.235	34.205	69.828	2.739	2.900	.053	NA	NA	2.475	5.428	78.067
1985 Total	17.478	17.703	30.925	66.093	4.076	2.970	.097	(s)	(s)	3.016	6.084	76.392
1990 Total	19.173	19.603	33.552	72.332	6.104	3.046	.171	.059	.029	2.735	6.041	84.485
1995 Total	20.089	22.671	34.438	77.259	7.075	3.205	.152	.069	.033	3.101	6.560	91.029
2000 Total	22.580	23.824	38.262	84.731	7.862	2.811	.164	.066	.057	3.008	6.106	98.814
2001 Total	21.914	22.773	38.186	82.902	8.029	2.242	.164	.064	.070	2.622	5.163	96.168
2002 Total	21.904	23.510	38.224	83.699	8.145	2.689	.171	.063	.105	2.701	5.729	97.645
2003 Total	22.321	22.831	38.811	84.014	7.960	2.793	.173	.062	.113	2.807	5.948	97.943
2004 Total	22.466	22.923	40.292	85.819	8.223	2.688	.178	.063	.142	3.010	6.081	100.161
2005 Total	22.797	22.565	40.388	85.794	8.161	2.703	.181	.063	.178	3.117	6.242	100.282
2006 Total	22.447	22.239	39.955	84.702	8.215	2.869	.181	.068	.264	3.267	6.649	99.629
2007 Total	22.749	23.663	39.774	86.211	8.459	2.446	.186	.076	.341	3.492	6.541	101.317
2008 Total	22.387	23.843	37.280	83.551	8.426	2.511	.192	.089	.546	3.865	7.202	99.292
2009 Total	19.691	23.416	35.403	78.487	8.355	2.669	.200	.098	.721	3.950	7.638	94.596
2010 Total	20.834	24.575	36.010	81.412	8.434	2.539	.208	.126	.923	4.285	8.081	98.016
2011 Total	19.658	24.955	35.368	79.991	8.269	3.103	.212	.171	1.168	4.420	9.074	97.461
2012 January	R 1.491	R 2.817	2.891	R 7.201	.758	.220	.017	.017	.130	.367	.751	R 8.721
February	R 1.338	R 2.556	2.757	R 6.651	.669	.193	.016	.016	.105	.351	.681	R 8.011
March	R 1.233	2.174	2.874	R 6.283	.647	.247	.018	.018	.133	.370	.785	R 7.725
April	R 1.112	1.995	2.794	R 5.907	.585	.250	.017	.018	.121	.354	.761	R 7.266
May	R 1.329	R 1.914	2.947	R 6.191	.651	.273	.018	.020	.119	.373	.803	R 7.659
June	R 1.498	R 1.908	2.904	R 6.310	.683	.254	.017	.020	.114	.367	.772	R 7.779
July	R 1.790	R 2.114	2.947	R 6.851	.724	.252	.018	.021	.084	.369	.744	R 8.338
August	R 1.718	R 2.052	3.044	R 6.813	.729	.219	.018	.020	.081	.380	.718	R 8.279
September	R 1.456	R 1.845	2.780	R 6.079	.676	.168	.018	.020	.084	.355	.643	R 7.412
October	R 1.403	1.941	2.956	R 6.297	.626	.157	.018	.020	.120	.368	.683	R 7.618
November	R 1.472	R 2.215	2.837	R 6.521	.594	.178	.018	.019	.111	.358	.684	R 7.812
December	R 1.539	R 2.559	2.847	R 6.944	.719	.219	.019	.019	.138	.369	.763	R 8.437
Total	R 17.378	R 26.089	34.577	R 78.048	8.062	2.629	.212	.227	1.340	4.379	8.786	R 95.058
2013 January	1.575	R 2.951	2.953	R 7.478	.748	.239	.019	.022	.139	.374	.793	R 9.033
February	1.418	R 2.630	2.644	R 6.692	.644	.195	.017	.021	.132	.340	.706	R 8.056
March	1.484	R 2.583	2.918	R 6.982	.660	.197	.019	.025	.149	.382	.771	R 8.427
April	1.293	R 2.013	2.837	R 6.141	.595	.236	.018	.025	.165	.367	.810	R 7.557
May	1.369	R 1.794	2.973	R 6.136	.659	.272	.018	.026	.155	.386	.857	R 7.667
June	1.570	R 1.782	2.881	R 6.231	.696	.260	.018	.027	.131	.387	.823	R 7.767
July	1.727	R 1.969	3.053	R 6.747	.739	.259	.019	.027	.106	.401	.812	R 8.316
August	1.705	R 1.974	3.032	R 6.709	.748	.207	.019	.028	.091	.391	.735	R 8.211
September	1.523	R 1.809	2.946	R 6.277	.690	.161	.018	.027	.111	.381	.699	R 7.681
October	1.406	R 1.913	3.037	R 6.354	.662	.165	.019	.028	.131	.401	.743	R 7.772
November	1.395	R 2.374	2.961	R 6.727	.681	.169	.018	.025	.151	.391	.754	R 8.176
December	1.619	R 2.989	2.960	R 7.566	.747	.203	.019	.026	.134	.413	.795	R 9.121
Total	18.084	R 26.780	35.194	R 80.041	8.268	2.561	.221	.307	1.595	4.613	9.298	R 97.785
2014 January	1.741	R 3.321	2.968	R 8.029	.766	.206	.019	.029	.171	.388	.812	R 9.620
February	1.597	R 2.842	2.697	R 7.135	.656	.166	.017	.027	.133	.356	.699	R 8.499
March	1.522	R 2.647	2.920	R 7.088	.654	.231	.018	.034	.169	.387	.840	R 8.593
April	1.249	R 2.021	2.876	R 6.146	.591	.239	.018	.036	.178	.383	.854	R 7.601
May	1.354	R 1.871	2.940	R 6.164	.660	.252	.019	.039	.148	.399	.856	R 7.693
June	1.558	R 1.812	2.887	R 6.256	.714	.246	.018	.040	.149	.395	.848	R 7.832
July	R 1.694	R 1.950	3.040	R 6.682	.754	.231	.018	.039	.115	.409	.812	R 8.264
August	1.688	2.005	3.043	6.734	.745	.188	.018	.040	.097	.408	.751	8.248
8-Month Total	12.403	18.470	23.372	54.233	5.540	1.758	.145	.285	1.161	3.124	6.474	66.350
2013 8-Month Total	12.141	17.696	23.291	53.116	5.489	1.864	.147	.201	1.068	3.027	6.307	65.034
2012 8-Month Total	11.509	17.529	23.158	52.207	5.447	1.907	.139	.150	.887	2.930	6.014	63.778

^a Most data are estimates. See Tables 10.1–10.2c for notes on series components and estimation; and see Note, "Renewable Energy Production and Consumption," at end of Section 10.

^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.gov/totalenergy/data/monthly/#summary> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.

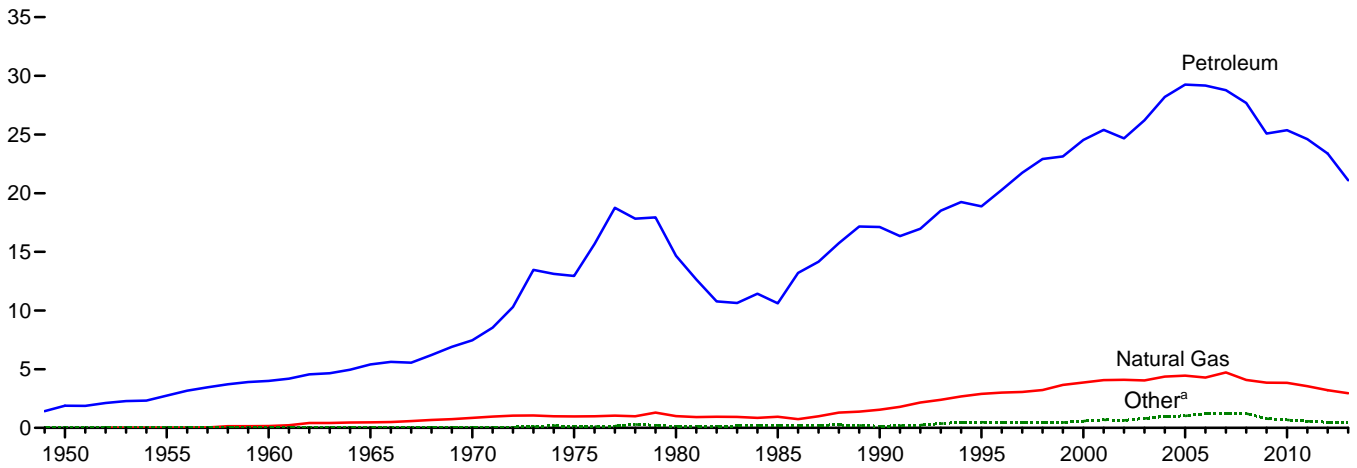
Sources: • **Coal:** Tables 6.1 and A5. • **Natural Gas:** Tables 4.1 and A4.

• **Petroleum:** Table 3.6. • **Nuclear Electric Power:** Tables 7.2a and A6

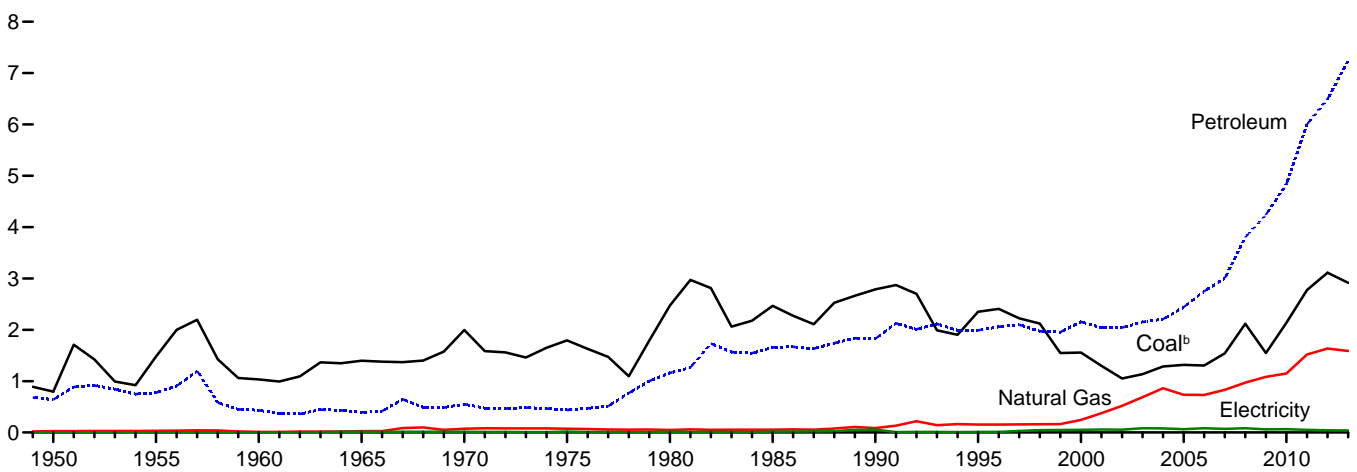
("Nuclear Plants" heat rate). • **Renewable Energy:** Table 10.1. • **Net Imports of Coal Coke and Electricity:** Tables 1.4a and 1.4b.

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

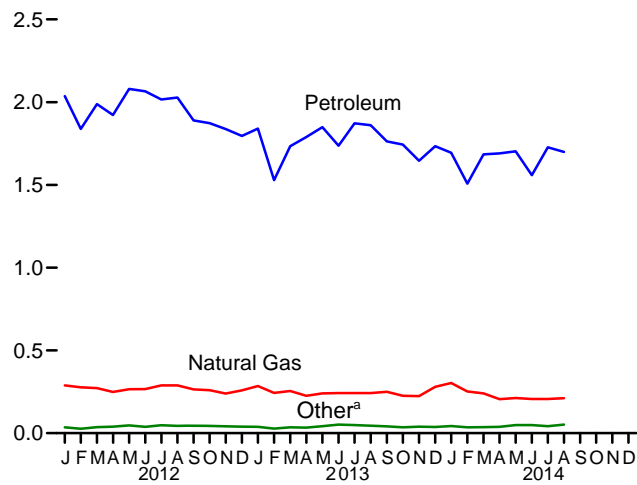
Imports by Source, 1949–2013



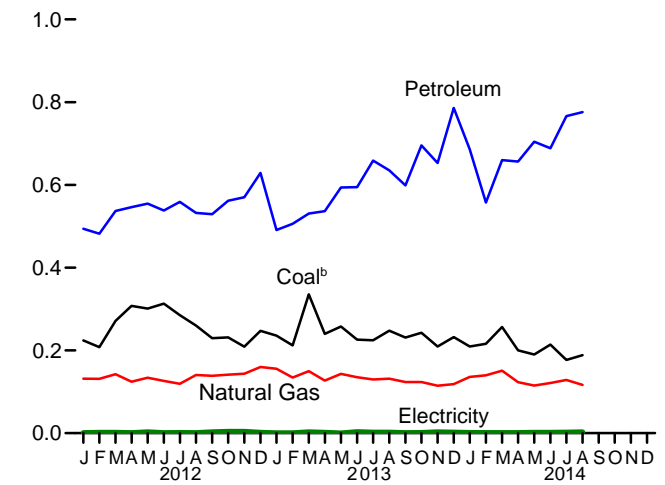
Exports by Source, 1949–2013



Imports by Source, Monthly



Exports by Major Source, Monthly

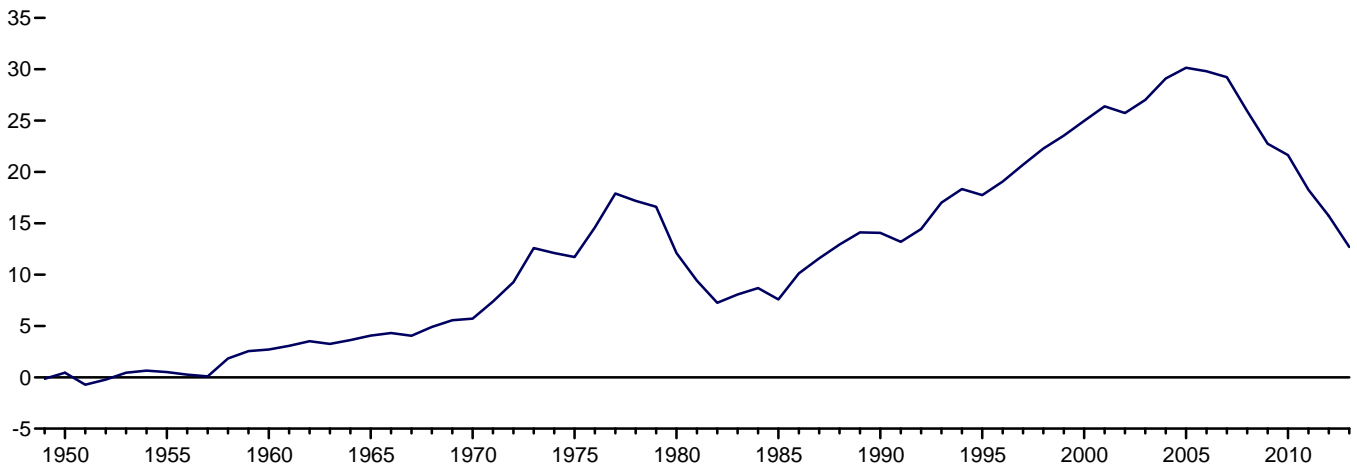


^a Coal, coal coke, biofuels, and electricity.
^b Includes coal coke.

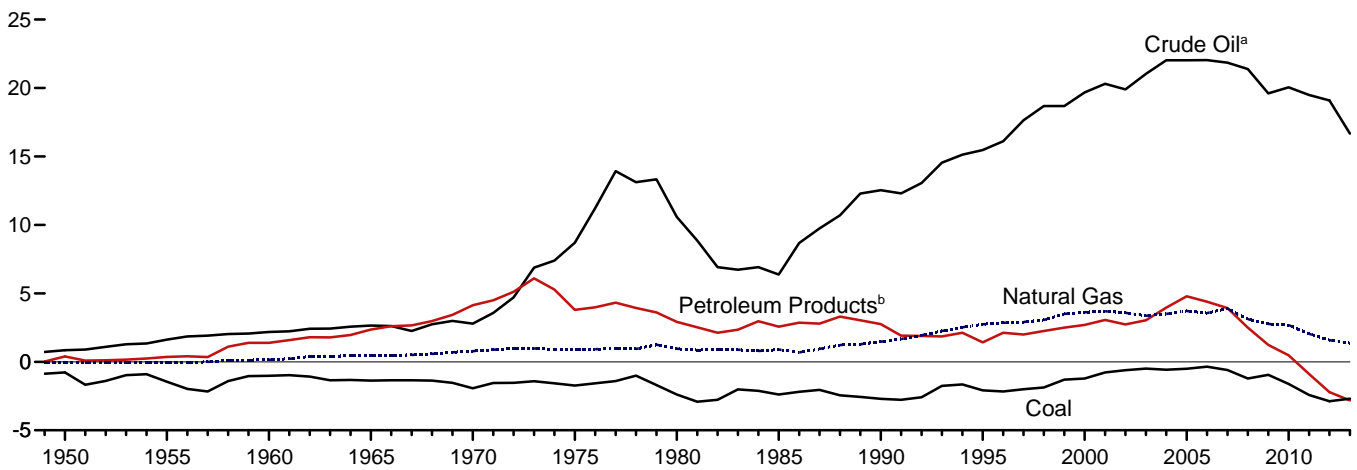
Web Page: <http://www.eia.gov/totalenergy/data/monthly/#summary>.
Sources: Tables 1.4a and 1.4b.

Figure 1.4b Primary Energy Net Imports
(Quadrillion Btu)

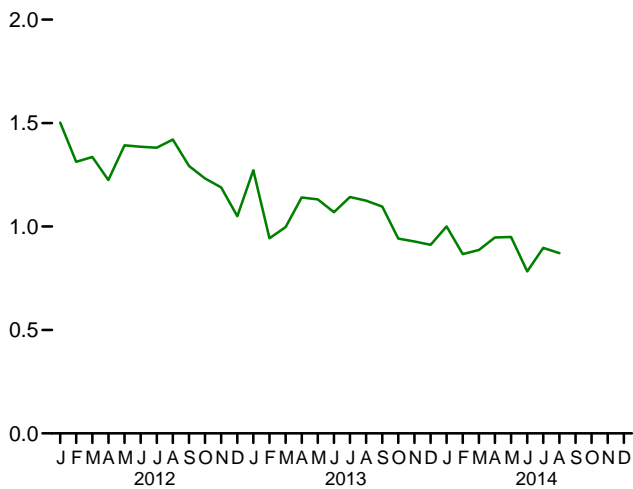
Total, 1949–2013



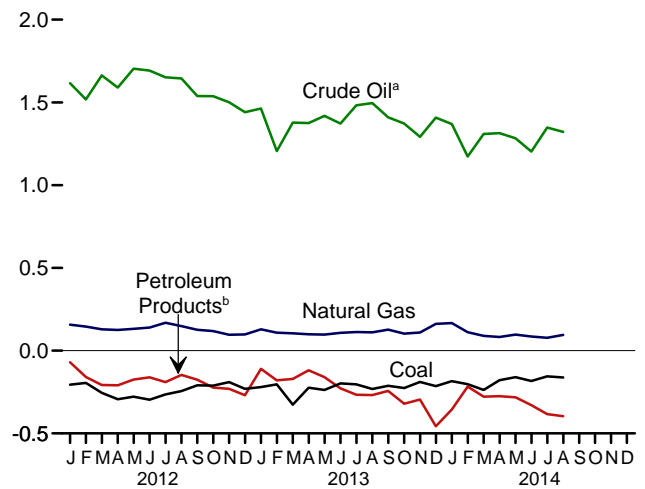
By Major Source, 1949–2013



Total, Monthly



By Major Source, Monthly



^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.

Web Page: <http://www.eia.gov/totalenergy/data/monthly/#summary>.

Sources: Tables 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			
1950 Total	0.009	0.011	0.000	1.056	0.830	1.886	NA	0.007	1.913
1955 Total .....	.008	.003	.011	1.691	1.061	2.752	NA	.016	2.790
1960 Total .....	.007	.003	.161	2.196	1.802	3.999	NA	.018	4.188
1965 Total .....	.005	.002	.471	2.654	2.748	5.402	NA	.012	5.892
1970 Total .....	.001	.004	.846	2.814	4.656	7.470	NA	.021	8.342
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
2000 Total .....	.313	.094	3.869	19.783	4.749	24.531	(s)	.166	28.973
2001 Total .....	.495	.063	4.068	20.348	5.051	25.398	.002	.131	30.157
2002 Total .....	.422	.080	4.104	19.920	4.754	24.674	.002	.125	29.408
2003 Total .....	.626	.068	4.042	21.060	5.159	26.219	.002	.104	31.061
2004 Total .....	.682	.170	4.365	22.082	6.114	28.197	.013	.117	33.544
2005 Total .....	.762	.088	4.450	22.091	7.157	29.248	.012	.150	34.709
2006 Total .....	.906	.101	4.291	22.085	7.084	29.169	.066	.146	34.679
2007 Total .....	.909	.061	4.723	21.914	6.868	28.781	.055	.175	34.704
2008 Total .....	.855	.089	4.084	21.448	6.237	27.685	.085	.195	32.993
2009 Total .....	.566	.009	3.845	19.699	5.383	25.082	.027	.178	29.706
2010 Total .....	.484	.030	3.834	20.140	5.231	25.371	.004	.154	29.877
2011 Total .....	.327	.035	3.555	19.595	5.010	24.605	.019	.178	28.720
2012 January .....	.018	.003	.288	1.630	.407	2.037	(s)	.014	2.361
February .....	.012	.002	.277	1.531	.308	1.839	(s)	.012	2.142
March .....	.016	.004	.272	1.676	.312	1.988	.002	.014	2.296
April .....	.014	.007	.249	1.597	.325	1.923	.001	.017	2.211
May .....	.023	.004	.265	1.718	.361	2.080	.002	.019	2.392
June .....	.017	.001	.266	1.700	.365	2.065	.004	.018	2.371
July .....	.021	.001	.288	1.665	.351	2.016	.004	.023	2.354
August .....	.015	.001	.288	1.656	.372	2.028	.007	.022	2.361
September .....	.020	.002	.264	1.550	.339	1.889	.007	.017	2.199
October .....	.020	.001	.260	1.549	.324	1.874	.007	.015	2.176
November .....	.018	.001	.240	1.513	.323	1.837	.007	.016	2.119
December .....	.017	.002	.258	1.453	.343	1.796	.005	.015	2.093
Total .....	.212	.028	3.216	19.239	4.132	23.371	.045	.202	27.075
2013 January .....	.015	(s)	.285	1.482	.358	1.840	.003	.017	2.160
February .....	.009	.001	.243	1.227	.302	1.529	.001	.016	1.800
March .....	.009	(s)	.254	1.397	.337	1.734	.006	.018	2.022
April .....	.016	(s)	.226	1.399	.390	1.789	.003	.016	2.050
May .....	.020	.001	.240	1.442	.407	1.849	.004	.019	2.133
June .....	.028	(s)	.243	1.394	.342	1.736	.007	.020	2.034
July .....	.020	(s)	.242	1.501	.370	1.872	.007	.022	2.163
August .....	.017	.001	.242	1.509	.351	1.860	.008	.022	2.149
September .....	.019	(s)	.250	1.429	.335	1.763	.008	.018	2.058
October .....	.017	(s)	.226	1.393	.350	1.743	.008	.017	2.011
November .....	.020	(s)	.224	1.336	.310	1.646	.010	.018	1.917
December .....	.018	(s)	.280	1.448	.286	1.734	.010	.017	2.058
Total .....	.208	.003	2.955	16.957	4.140	21.097	.075	.217	24.555
2014 January .....	.025	(s)	.303	1.413	.282	1.695	.001	.017	2.041
February .....	.014	(s)	.252	1.212	.296	1.508	.001	.014	1.788
March .....	.019	(s)	.240	1.353	.331	1.685	.002	.017	1.963
April .....	.022	(s)	.206	1.361	.330	1.691	.002	.015	1.935
May .....	.030	(s)	.212	1.335	.368	1.703	.005	.017	1.966
June .....	.031	.001	.207	1.272	.287	1.559	.002	.017	1.815
July .....	.022	(s)	.206	1.420	.307	1.727	.003	.020	1.978
August .....	.026	(s)	.212	1.392	.307	1.699	.003	.021	1.961
8-Month Total .....	.188	.001	1.837	10.758	2.507	13.265	.019	.137	15.446
2013 8-Month Total .....	.135	.003	1.975	11.352	2.859	14.210	.040	.148	16.512
2012 8-Month Total .....	.137	.022	2.194	13.173	2.802	15.975	.020	.139	18.488

^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 (minus denaturant) and biodiesel.

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.gov/totalenergy/data/monthly/#summary> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.

Sources: • **Coal:** Tables 6.1 and A5. • **Coal Coke:** U.S. Department of Commerce, Bureau of the Census, Monthly Report IM 145 and Table A5. • **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, 10.4 and A3. • **Electricity:** Tables 7.1 and A6.

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

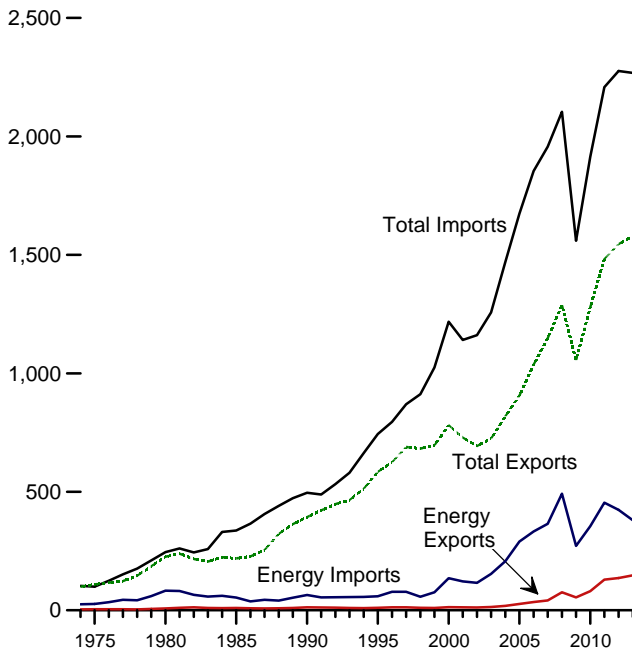
	Exports									Net Imports ^a
	Coal	Coal Coke	Natural Gas	Petroleum			Biofuels ^d	Electricity	Total	
				Crude Oil ^b	Petroleum Products ^c	Total				
1950 Total	0.786	0.010	0.027	0.202	0.440	0.642	NA	0.001	1.465	0.448
1955 Total	1.465	.013	.032	.067	.707	.774	NA	.002	2.286	.504
1960 Total	1.023	.009	.012	.018	.413	.431	NA	.003	1.477	2.710
1965 Total	1.376	.021	.027	.006	.386	.392	NA	.013	1.829	4.063
1970 Total	1.936	.061	.072	.029	.520	.549	NA	.014	2.632	5.709
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
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	2.039	(s)	.056	3.771	26.386
2002 Total	1.032	.020	.520	.019	2.023	2.042	(s)	.054	3.669	25.739
2003 Total	1.117	.018	.686	.026	2.124	2.151	.001	.082	4.054	27.007
2004 Total	1.253	.033	.862	.057	2.151	2.208	.001	.078	4.434	29.110
2005 Total	1.273	.043	.735	.067	2.374	2.442	.001	.065	4.560	30.149
2006 Total	1.264	.040	.730	.052	2.699	2.751	.005	.083	4.873	29.806
2007 Total	1.507	.036	.830	.058	2.949	3.007	.036	.069	5.483	29.220
2008 Total	2.071	.049	.972	.061	3.739	3.800	.089	.083	7.063	25.931
2009 Total	1.515	.032	1.082	.093	4.147	4.240	.035	.062	6.966	22.740
2010 Total	2.101	.036	1.147	.088	4.750	4.838	.047	.065	8.234	21.643
2011 Total	2.751	.024	1.519	.100	5.904	6.004	.108	.051	10.457	18.263
2012 January .....	.224	.001	.132	.014	.477	.491	.008	.003	.858	1.502
February .....	.208	.002	.131	.012	.467	.479	.007	.003	.830	1.313
March .....	.271	.002	.142	.013	.520	.533	.008	.004	.960	1.336
April .....	.308	.001	.124	.007	.535	.542	.007	.004	.987	1.224
May .....	.301	.003	.134	.015	.536	.551	.007	.004	.999	1.393
June .....	.313	.001	.126	.008	.526	.534	.007	.004	.985	1.386
July .....	.285	.001	.119	.014	.542	.556	.008	.003	.973	1.381
August .....	.260	.001	.141	.011	.519	.530	.006	.003	.940	1.420
September .....	.229	.003	.139	.012	.514	.526	.006	.003	.906	1.293
October .....	.231	.004	.141	.012	.547	.559	.006	.003	.944	1.232
November .....	.209	.004	.144	.013	.555	.567	.004	.003	.930	1.189
December .....	.247	.002	.160	.013	.613	.625	.005	.004	1.043	1.050
Total	3.087	.024	1.633	.143	6.350	6.493	.078	.041	11.356	15.719
2013 January .....	.236	.001	.156	.020	.468	.488	.005	.003	.888	1.272
February .....	.212	.001	.134	.021	.482	.503	.004	.003	.857	.943
March .....	.336	.003	.150	.019	.508	.527	.005	.003	1.024	.997
April .....	.240	.002	.127	.024	.508	.532	.005	.004	.910	1.140
May .....	.258	(s)	.143	.023	.567	.590	.006	.003	1.002	1.131
June .....	.226	.003	.135	.022	.570	.592	.006	.003	.965	1.069
July .....	.225	.002	.130	.019	.637	.655	.005	.003	1.020	1.143
August .....	.248	.002	.131	.013	.620	.632	.008	.003	1.025	1.125
September .....	.231	.001	.124	.018	.578	.596	.007	.003	.962	1.097
October .....	.242	.001	.124	.021	.671	.692	.006	.003	1.069	.941
November .....	.209	.003	.115	.044	.606	.650	.010	.003	.990	.928
December .....	.232	.002	.118	.040	.743	.782	.008	.004	1.147	.912
Total	2.895	.021	1.587	.284	6.957	7.241	.076	.039	11.858	12.697
2014 January .....	.210	.001	.136	.044	.637	.681	.008	.004	1.040	1.000
February .....	.216	.002	.140	.039	.514	.553	.006	.004	.921	.866
March .....	.257	.001	.151	.044	.609	.653	.008	.007	1.076	.886
April .....	.200	.001	.123	.047	.605	.652	.007	.005	.988	.947
May .....	.190	.002	.115	.052	.650	.702	.005	.003	1.017	.949
June .....	.214	.002	.121	.069	.616	.685	.006	.004	1.032	.783
July .....	.177	.002	.129	.072	.690	.763	.007	.004	1.081	.897
August .....	.189	.003	.116	.070	.703	.773	.006	.003	1.090	.871
8-Month Total	1.652	.013	1.031	.437	5.025	5.462	.054	.033	8.245	7.201
2013 8-Month Total	1.980	.014	1.106	.161	4.360	4.520	.045	.026	7.691	8.820
2012 8-Month Total	2.170	.012	1.050	.094	4.121	4.215	.057	.029	7.533	10.955

^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 Through 2010, data are for biodiesel only. Beginning in 2011, data are for fuel ethanol (minus denaturant) and biodiesel.
 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

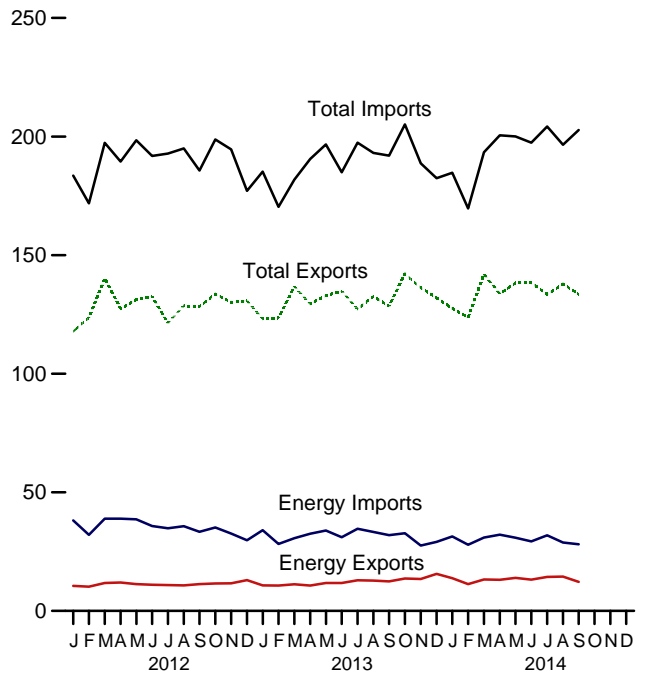
and the District of Columbia.
 Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#summary> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.
 Sources: • **Coal**: Tables 6.1 and A5. • **Coal Coke**: U.S. Department of Commerce, Bureau of the Census, Monthly Report EM 545 and Table A5. • **Natural Gas**: Tables 4.1 and A4. • **Crude Oil and Petroleum Products**: Tables 3.3b, 10.4, and A2. • **Biofuels**: Tables 10.3, 10.4 and A3. • **Electricity**: Tables 7.1 and A6.

Figure 1.5 Merchandise Trade Value
(Billion Dollars^a)

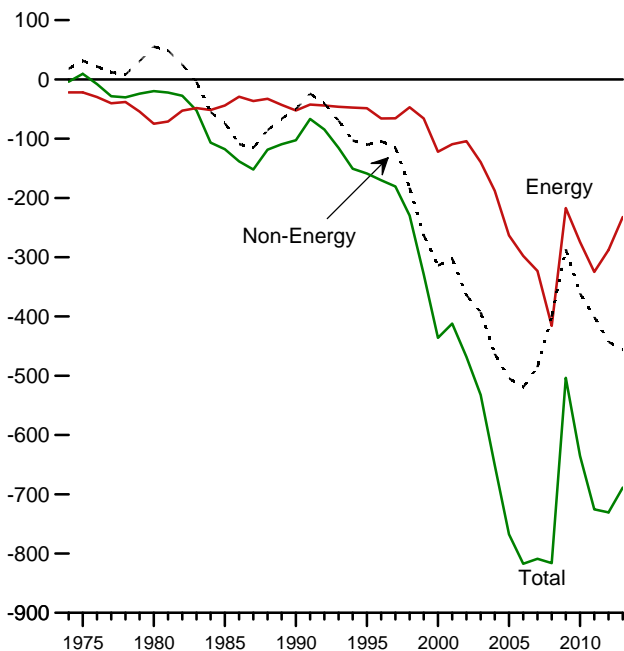
Imports and Exports, 1974–2013



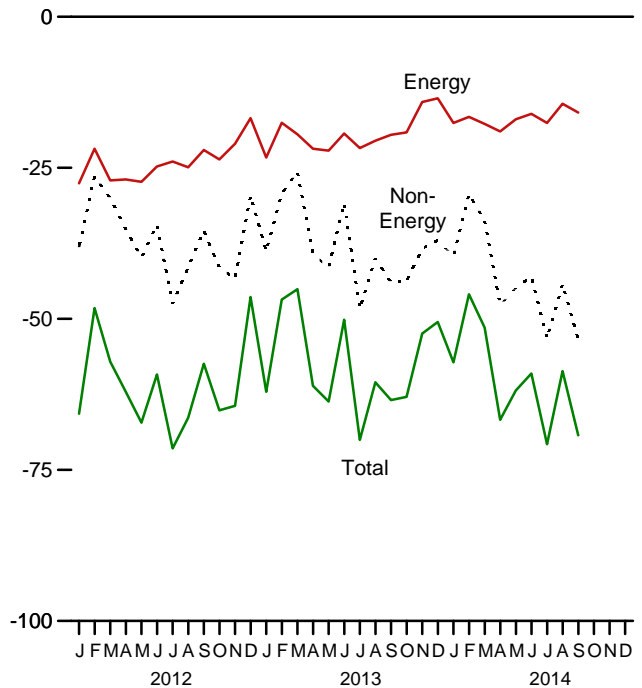
Imports and Exports, Monthly



Trade Balance, 1974–2013



Trade Balance, Monthly



^a Prices are not adjusted for inflation. See "Nominal Dollars" in Glossary.
<http://www.eia.gov/totalenergy/data/monthly/#summary>.
Source: Table 1.5.

Table 1.5 Merchandise Trade Value
(Million 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
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 Total	61,695	449,847	-388,152	76,075	491,885	-415,810	-400,389	1,287,442	2,103,641	-816,199
2009 Total	44,509	251,833	-207,324	54,536	271,739	-217,203	-286,379	1,056,043	1,559,625	-503,582
2010 Total	64,753	333,472	-268,719	80,625	354,982	-274,357	-361,005	1,278,495	1,913,857	-635,362
2011 Total	^b 102,180	^b 431,866	^b -329,686	128,989	453,839	-324,850	-400,597	1,482,508	2,207,954	-725,447
2012 January	8,363	36,539	-28,176	10,587	38,155	-27,568	-38,118	117,847	183,533	-65,686
February	8,370	30,763	-22,393	10,207	32,047	-21,840	-26,377	123,613	171,829	-48,217
March	9,570	37,642	-28,072	11,782	38,866	-27,084	-30,012	140,254	197,350	-57,096
April	9,659	37,735	-28,076	11,972	38,898	-26,926	-35,126	127,416	189,468	-62,052
May	9,222	37,467	-28,245	11,312	38,638	-27,326	-39,852	131,232	198,411	-67,178
June	8,874	34,680	-25,806	11,019	35,804	-24,785	-34,427	132,577	191,788	-59,212
July	8,798	33,509	-24,711	10,871	34,833	-23,962	-47,478	121,400	192,840	-71,440
August	8,866	34,484	-25,618	10,790	35,700	-24,910	-41,465	128,585	194,960	-66,375
September	9,485	32,275	-22,790	11,295	33,345	-22,050	-35,381	128,254	185,686	-57,431
October	9,759	33,940	-24,181	11,589	35,193	-23,604	-41,537	133,627	198,768	-65,141
November	9,932	31,185	-21,253	11,609	32,619	-21,010	-43,375	130,170	194,555	-64,385
December	11,052	28,290	-17,238	12,999	29,764	-16,765	-29,621	130,728	177,114	-46,386
Total	111,949	408,509	-296,560	136,032	423,860	-287,828	-442,771	1,545,703	2,276,302	-730,599
2013 January	8,786	32,448	-23,662	10,756	34,049	-23,293	-38,767	123,130	185,190	-62,060
February	9,028	26,828	-17,800	10,724	28,256	-17,532	-29,290	123,536	170,358	-46,822
March	8,909	29,265	-20,356	11,234	30,687	-19,453	-25,640	136,762	181,855	-45,093
April	8,593	31,204	-22,611	10,677	32,518	-21,841	-39,255	129,465	190,561	-61,096
May	9,684	32,590	-22,906	11,766	33,916	-22,150	-41,529	133,007	196,686	-63,679
June	9,845	29,678	-19,833	11,739	31,052	-19,313	-30,822	134,830	184,965	-50,135
July	10,874	33,328	-22,454	12,887	34,626	-21,739	-48,287	127,358	197,384	-70,026
August	10,796	32,053	-21,257	12,784	33,283	-20,499	-40,007	132,604	193,110	-60,506
September	10,468	30,747	-20,279	12,436	31,956	-19,520	-43,933	128,515	191,968	-63,453
October	11,518	31,590	-20,072	13,641	32,780	-19,139	-43,777	142,182	205,098	-62,916
November	11,403	26,227	-14,824	13,466	27,560	-14,094	-38,338	136,249	188,681	-52,432
December	13,466	27,195	-13,729	15,584	29,086	-13,502	-37,007	131,956	182,465	-50,509
Total	123,368	363,152	-239,784	147,693	379,770	-232,077	-456,651	1,579,593	2,268,321	-688,728
2014 January	11,565	29,460	-17,895	13,806	31,377	-17,571	-39,622	127,508	184,701	-57,193
February	8,967	25,663	-16,696	11,303	27,879	-16,576	-29,361	123,728	169,665	-45,937
March	10,411	29,001	-18,590	13,229	30,959	-17,730	-33,711	141,905	193,346	-51,441
April	10,371	30,513	-20,142	13,131	32,119	-18,988	-47,712	133,817	200,517	-66,700
May	11,444	29,206	-17,762	13,900	30,872	-16,972	-44,880	138,225	200,077	-61,852
June	11,042	27,667	-16,625	13,218	29,278	-16,060	-42,986	138,400	197,446	-59,046
July	12,144	30,427	-18,283	14,319	31,895	-17,576	-53,186	133,491	204,253	-70,762
August	12,389	27,569	-15,180	14,467	28,859	-14,392	^R -44,265	^R 137,878	^R 196,536	^R -58,657
September	10,096	26,812	-16,716	12,256	28,113	-15,857	-53,407	133,497	202,761	-69,264
9-Month Total	98,428	256,319	-157,889	119,629	271,350	-151,722	-389,130	1,208,449	1,749,303	-540,854
2013 9-Month Total	86,981	278,141	-191,158	105,002	290,343	-185,340	-337,530	1,169,206	1,692,077	-522,871
2012 9-Month Total	81,207	315,094	-233,887	99,835	326,286	-226,451	-328,236	1,151,179	1,705,865	-554,686

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

^b Through 2010, data are for crude oil, petroleum preparations, liquefied propane and butane, and other mineral fuels. Beginning in 2011, data are for petroleum products and preparations.

^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

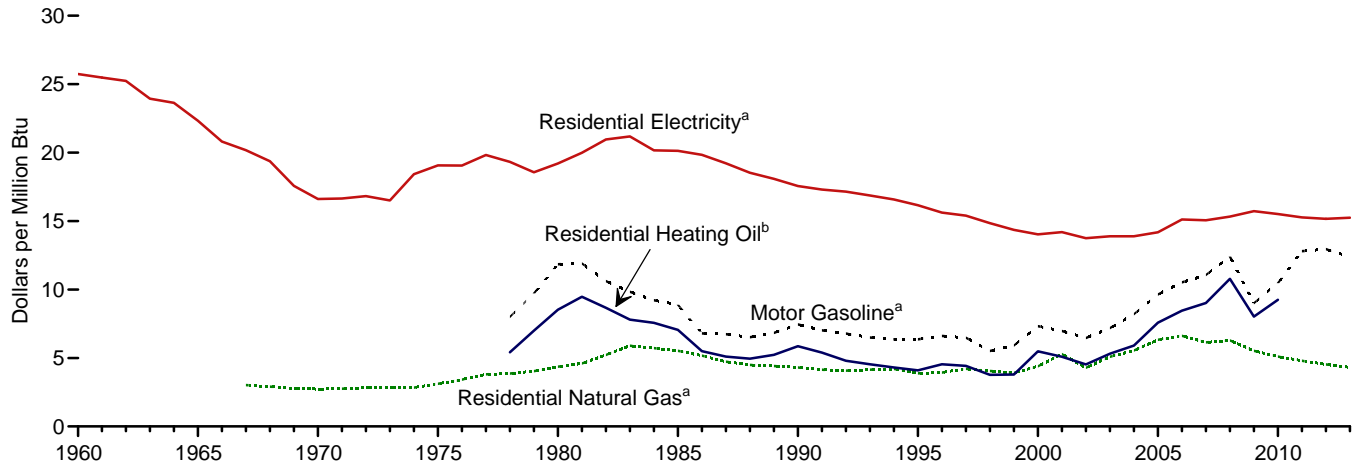
components due to independent rounding. • The U.S. import statistics reflect both government and nongovernment imports of merchandise from foreign countries into the U.S. customs territory, which comprises the 50 states, the District of Columbia, Puerto Rico, and the Virgin Islands.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#summary> (Excel and CSV files) for all available annual and monthly data beginning in 1974.

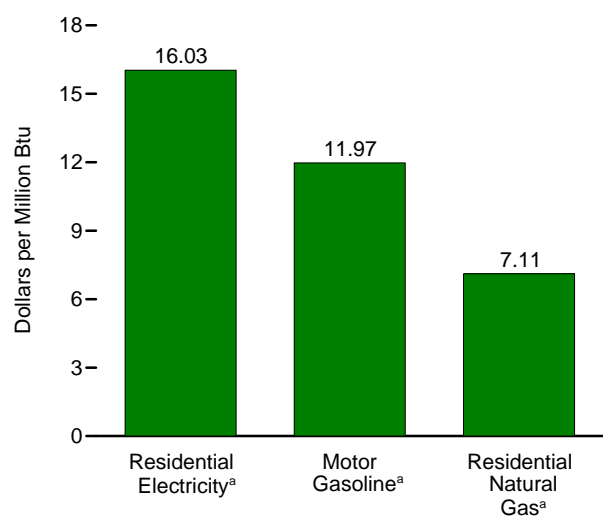
Sources: See end of section.

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

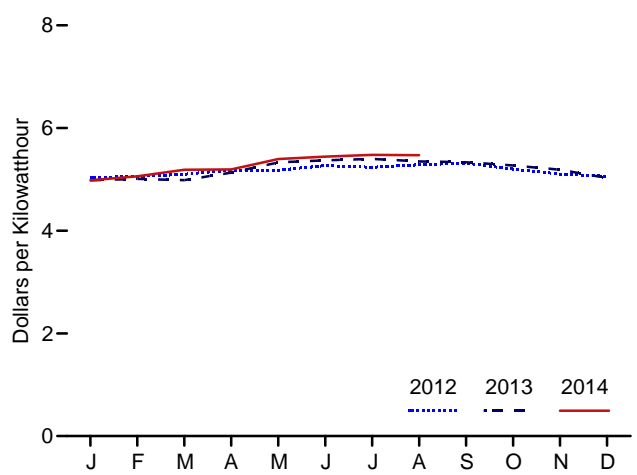
Costs, 1960–2013



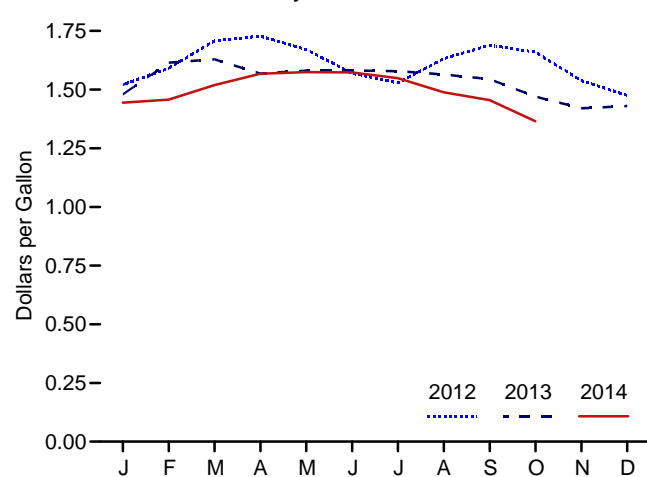
Costs, August 2014



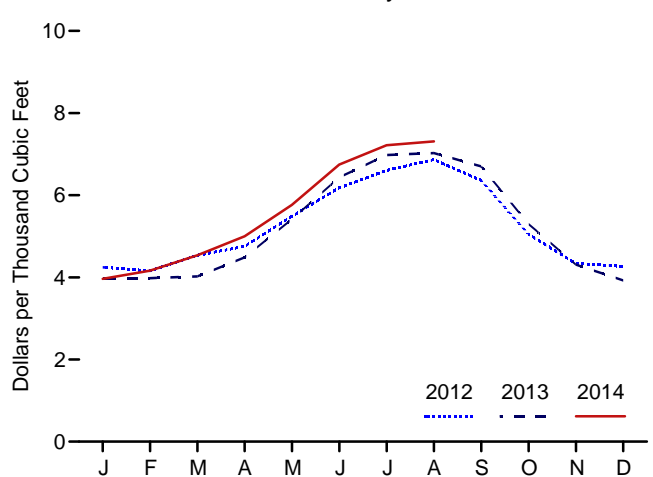
Residential Electricity,^a Monthly



Motor Gasoline,^a Monthly



Residential Natural Gas,^a Monthly



^a Includes taxes.

^b Excludes taxes.

Note: See "Real Dollars" in Glossary.

Web Page: <http://www.eia.gov/totalenergy/data/monthly/#summary>.

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	Dollars per Gallon	Dollars per Million Btu	Dollars per Gallon	Dollars per Million Btu	Dollars per Thousand Cubic Feet	Dollars per Million Btu	Cents per Kilowatt-hour	Dollars per Million Btu
1960 Average	29.6	NA	NA	NA	NA	NA	NA	8.8	25.74
1965 Average	31.5	NA	NA	NA	NA	NA	NA	7.6	22.33
1970 Average	38.8	NA	NA	NA	NA	2.81	2.72	5.7	16.62
1975 Average	53.8	NA	NA	NA	NA	3.18	3.12	6.5	19.07
1980 Average	82.4	1.482	11.85	1.182	8.52	4.47	4.36	6.6	19.21
1985 Average	107.6	1.112	8.89	0.979	7.06	5.69	5.52	6.87	20.13
1990 Average	130.7	0.931	7.44	0.813	5.86	4.44	4.31	5.99	17.56
1995 Average	152.4	0.791	6.37	0.569	4.10	3.98	3.87	5.51	16.15
2000 Average	172.2	0.908	7.32	0.761	5.49	4.51	4.39	4.79	14.02
2001 Average	177.1	0.864	6.97	0.706	5.09	5.44	5.28	4.84	14.20
2002 Average	179.9	0.801	6.46	0.628	4.52	4.39	4.28	4.69	13.75
2003 Average	184.0	0.890	7.18	0.736	5.31	5.23	5.09	4.74	13.89
2004 Average	188.9	1.018	8.20	0.819	5.91	5.69	5.55	4.74	13.89
2005 Average	195.3	1.197	9.64	1.051	7.58	6.50	6.33	4.84	14.18
2006 Average	201.6	1.307	10.52	1.173	8.46	6.81	6.63	5.16	15.12
2007 Average	207.342	1.374	11.06	1.250	9.01	6.31	6.14	5.14	15.05
2008 Average	215.303	1.541	12.40	1.495	10.78	6.45	6.28	5.23	15.33
2009 Average	214.537	1.119	9.01	1.112	8.02	5.66	5.52	5.37	15.72
2010 Average	218.056	1.301	10.47	1.283	9.25	5.22	5.11	5.29	15.51
2011 Average	224.939	1.590	12.80	NA	NA	4.90	4.80	5.21	15.27
2012 January	226.665	1.521	12.24	NA	NA	R 4.24	R 4.14	5.03	14.75
February	227.663	1.591	12.80	NA	NA	R 4.16	R 4.06	5.06	14.82
March	229.392	1.708	13.75	NA	NA	R 4.54	R 4.43	5.10	14.95
April	230.085	1.728	13.91	NA	NA	R 4.76	R 4.64	5.18	15.18
May	229.815	1.670	13.44	NA	NA	R 5.49	R 5.35	5.18	15.18
June	229.478	1.570	12.63	NA	NA	R 6.18	R 6.03	5.27	15.44
July	229.104	1.529	12.30	NA	NA	R 6.60	R 6.44	5.24	15.35
August	230.379	1.632	13.13	NA	NA	R 6.87	R 6.70	5.28	15.48
September	231.407	1.689	13.59	NA	NA	R 6.36	R 6.21	5.32	15.58
October	231.317	1.660	13.36	NA	NA	R 5.05	R 4.93	5.20	15.24
November	230.221	1.539	12.38	NA	NA	R 4.34	R 4.23	5.10	14.96
December	229.601	1.475	11.87	NA	NA	R 4.27	R 4.16	5.06	14.83
Average	229.594	1.609	12.95	NA	NA	R 4.64	R 4.53	5.17	15.17
2013 January	230.280	1.480	11.90	NA	NA	R 3.97	R 3.87	4.98	14.60
February	232.166	1.614	12.99	NA	NA	3.98	R 3.87	5.01	14.68
March	232.773	1.629	13.11	NA	NA	R 4.02	3.91	4.98	14.61
April	232.531	1.568	12.62	NA	NA	R 4.49	R 4.36	5.13	15.04
May	232.945	1.581	12.72	NA	NA	5.41	R 5.27	5.33	15.63
June	233.504	1.582	12.73	NA	NA	R 6.43	R 6.26	5.37	15.74
July	233.596	1.576	12.70	NA	NA	6.98	R 6.79	5.40	15.82
August	233.877	1.564	12.58	NA	NA	7.03	R 6.83	5.35	15.68
September	234.149	1.544	12.43	NA	NA	6.70	R 6.52	5.33	15.63
October	233.546	1.470	11.83	NA	NA	R 5.30	R 5.16	5.27	15.45
November	233.069	1.420	11.43	NA	NA	R 4.31	R 4.19	5.19	15.20
December	233.049	1.430	11.51	NA	NA	3.93	R 3.82	5.03	14.74
Average	232.957	1.538	12.38	NA	NA	4.43	R 4.31	5.20	15.25
2014 January	233.916	1.444	11.62	NA	NA	3.96	3.86	4.98	14.60
February	234.781	1.458	11.73	NA	NA	4.16	R 4.05	5.06	14.83
March	236.293	1.519	12.22	NA	NA	R 4.54	R 4.41	5.19	15.21
April	237.072	1.568	12.62	NA	NA	5.00	R 4.86	5.19	15.22
May	237.900	1.574	12.67	NA	NA	5.76	5.61	5.40	15.82
June	238.343	1.573	12.66	NA	NA	R 6.75	R 6.56	5.44	15.95
July	238.250	1.549	12.46	NA	NA	R 7.22	R 7.02	5.48	16.05
August	237.852	1.488	11.97	NA	NA	R 7.31	R 7.11	R 5.47	R 16.03
September	238.031	1.455	11.71	NA	NA	NA	NA	NA	NA
October	237.433	1.365	10.98	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.

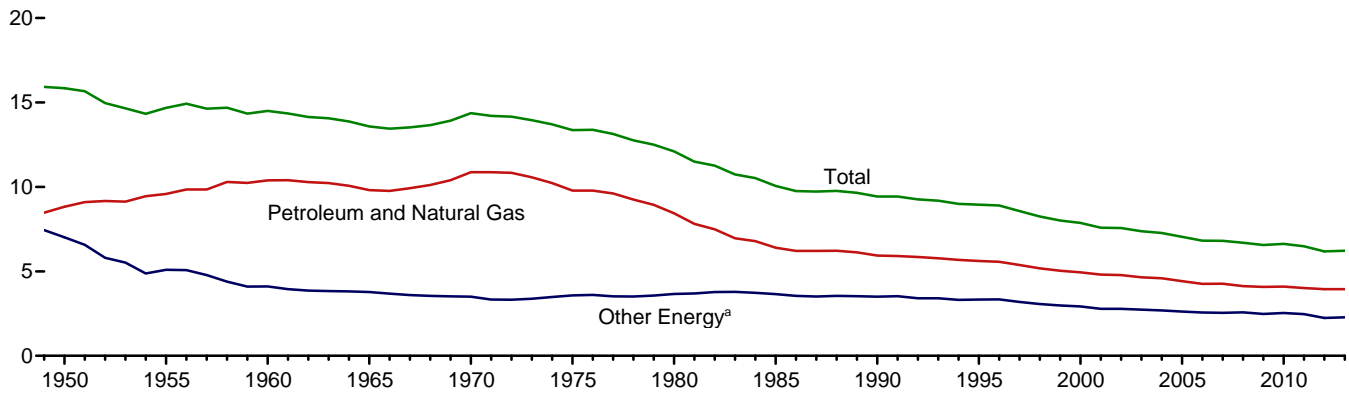
R=Revised. NA=Not available.

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.gov/totalenergy/data/monthly/#summary> (Excel and CSV files) for all available annual data beginning in 1960 and monthly data beginning in 1995.

Sources: • **Fuel Prices:** Tables 9.4 (All Grades), 9.8, and 9.10, adjusted by the CPI; and *Monthly Energy Review*, September 2012, Table 9.8c. • **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, 1949–2013
(Thousand Btu per Chained (2009) Dollar)



Note: See "Real Dollars" in Glossary.
Web Page: <http://www.eia.gov/totalenergy/data/monthly/#summary>.
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 (2009) Dollars	Thousand Btu per Chained (2009) Dollar	
1950	19.284	15.332	34.616	2,184.0	8.83	7.02	15.85
1955	26.253	13.955	40.208	2,739.0	9.58	5.09	14.68
1960	32.305	12.782	45.086	3,108.7	10.39	4.11	14.50
1965	39.014	15.001	54.015	3,976.7	9.81	3.77	13.58
1970	51.315	16.523	67.838	4,722.0	10.87	3.50	14.37
1975	52.680	19.284	71.965	5,385.4	9.78	3.58	13.36
1980	54.440	23.627	78.067	6,450.4	8.44	3.66	12.10
1985	48.628	27.764	76.392	7,593.8	6.40	3.66	10.06
1990	53.155	31.330	84.485	8,955.0	5.94	3.50	9.43
1995	57.110	33.920	91.029	10,174.8	5.61	3.33	8.95
2000	62.086	36.729	98.814	12,559.7	4.94	2.92	7.87
2001	60.958	35.210	96.168	12,682.2	4.81	2.78	7.58
2002	61.734	35.911	97.645	12,908.8	4.78	2.78	7.56
2003	61.642	36.301	97.943	13,271.1	4.64	2.74	7.38
2004	63.215	36.946	100.161	13,773.5	4.59	2.68	7.27
2005	62.953	37.328	100.282	14,234.2	4.42	2.62	7.05
2006	62.194	37.435	99.629	14,613.8	4.26	2.56	6.82
2007	63.437	37.881	101.317	14,873.7	4.27	2.55	6.81
2008	61.123	38.169	99.292	14,830.4	4.12	2.57	6.70
2009	58.819	35.777	94.596	14,418.7	4.08	2.48	6.56
2010	60.584	37.432	98.016	14,783.8	4.10	2.53	6.63
2011	60.322	37.139	97.461	15,020.6	4.02	2.47	6.49
2012	^R 60.666	^R 34.392	^R 95.058	15,369.2	3.95	^R 2.24	6.18
2013	^R 61.974	35.811	^R 97.785	15,710.3	3.94	2.28	^R 6.22

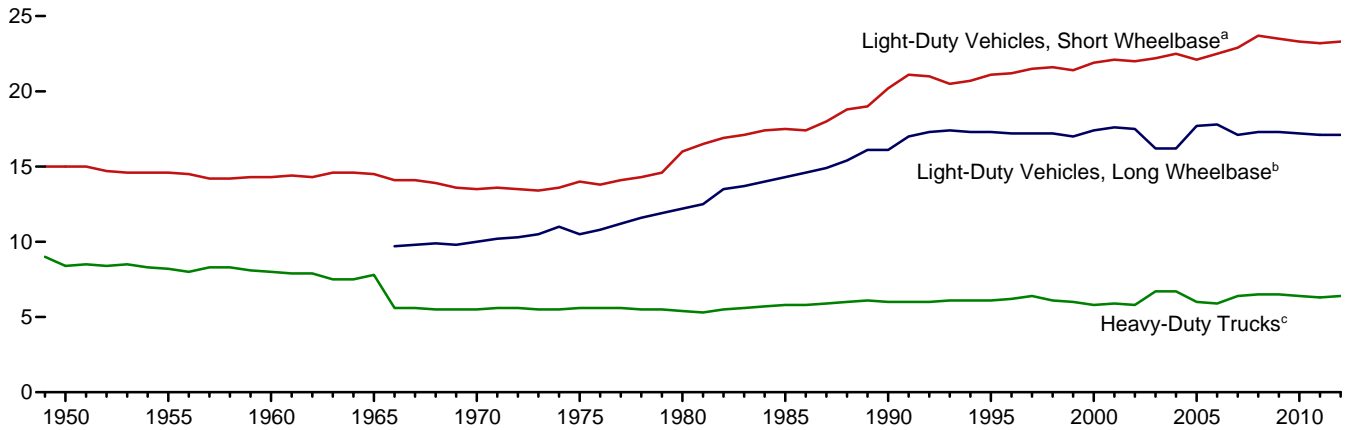
^a Coal, coal coke net imports, nuclear electric power, renewable energy, and electricity net imports.
R=Revised.

- 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: See <http://www.eia.gov/totalenergy/data/monthly/#summary> (Excel and CSV files) for all available annual data beginning in 1949.

Sources: • **Energy Consumption:** Table 1.3. • **Gross Domestic Product:** U.S. Department of Commerce, Bureau of Economic Analysis, National Income and Product Accounts (October 30, 2014), Table 1.1.6.

Figure 1.8 Motor Vehicle Fuel Economy, 1949–2012
(Miles per Gallon)



Web Page: <http://www.eia.gov/totalenergy/data/monthly/#summary>.
Source: Table 1.8.

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

	Light-Duty Vehicles, Short Wheelbase ^a			Light-Duty Vehicles, Long Wheelbase ^b			Heavy-Duty Trucks ^c			All Motor Vehicles ^d		
	Mileage	Fuel Consumption	Fuel Economy	Mileage	Fuel Consumption	Fuel Economy	Mileage	Fuel Consumption	Fuel Economy	Mileage	Fuel Consumption	Fuel Economy
	Miles per Vehicle	Gallons per Vehicle	Miles per Gallon	Miles per Vehicle	Gallons per Vehicle	Miles per Gallon	Miles per Vehicle	Gallons per Vehicle	Miles per Gallon	Miles per Vehicle	Gallons per Vehicle	Miles per Gallon
1950	9,060	603	15.0	(^e)	(^e)	(^e)	10,316	1,229	8.4	9,321	725	12.8
1955	9,447	645	14.6	(^e)	(^e)	(^e)	10,576	1,293	8.2	9,661	761	12.7
1960	9,518	668	14.3	(^e)	(^e)	(^e)	10,693	1,333	8.0	9,732	784	12.4
1965	9,603	661	14.5	(^e)	(^e)	(^e)	10,851	1,387	7.8	9,826	787	12.5
1970	9,989	737	13.5	8,676	866	10.0	13,565	2,467	5.5	9,976	830	12.0
1975	9,309	665	14.0	9,829	934	10.5	15,167	2,722	5.6	9,627	790	12.2
1980	8,813	551	16.0	10,437	854	12.2	18,736	3,447	5.4	9,458	712	13.3
1985	9,419	538	17.5	10,506	735	14.3	20,597	3,570	5.8	10,020	685	14.6
1990	10,504	520	20.2	11,902	738	16.1	23,603	3,953	6.0	11,107	677	16.4
1995	11,203	530	21.1	12,018	694	17.3	26,514	4,315	6.1	11,793	700	16.8
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	^a 10,710	^a 468	^a 22.9	^b 14,970	^b 877	^b 17.1	^c 28,290	^c 4,398	6.4	11,915	693	17.2
2008	10,290	435	23.7	15,256	880	17.3	28,573	4,387	6.5	11,631	667	17.4
2009	10,391	442	23.5	15,252	882	17.3	26,274	4,037	6.5	11,631	661	17.6
2010	10,650	456	23.3	15,474	901	17.2	26,604	4,180	6.4	11,866	681	17.4
2011	11,150	481	23.2	12,007	702	17.1	26,054	4,128	6.3	11,652	665	17.5
2012 ^P	11,265	483	23.3	11,882	694	17.1	25,172	3,960	6.4	11,705	664	17.6

^a Through 1989, data are for passenger cars and motorcycles. For 1990–2006, data are for passenger cars only. Beginning in 2007, data are for light-duty vehicles (passenger cars, light trucks, vans, and sport utility vehicles) with a wheelbase less than or equal to 121 inches.

^b For 1966–2006, data are for vans, pickup trucks, and sport utility vehicles. Beginning in 2007, data are for light-duty vehicles (passenger cars, light trucks, vans, and sport utility vehicles) with a wheelbase greater than 121 inches.

^c For 1949–1965, data are for single-unit trucks with 2 axles and 6 or more tires, combination trucks, and other vehicles with 2 axles and 4 tires that are not passenger cars. For 1965–2006, data are for single-unit trucks with 2 axles and 6 or more tires, and combination trucks. Beginning in 2007, data are for single-unit trucks with 2 axles and 6 or more tires (or a gross vehicle weight rating exceeding 10,000 pounds), and combination trucks.

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

^e Included in "Heavy-Duty Trucks."

P=Preliminary.

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

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#summary> (Excel and CSV files) for all available annual data beginning in 1949.

Sources: • **Light-Duty Vehicles, Short Wheelbase: 1990–1994**—U.S. Department of Transportation, Bureau of Transportation Statistics, *National Transportation Statistics 1998*, Table 4-13. • **All Other Data: 1949–1994**—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	October					Cumulative July through October				
	Normal ^a	2013	2014	Percent Change		Normal ^a	2013	2014	Percent Change	
				Normal to 2014	2013 to 2014				Normal to 2014	2013 to 2014
New England Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont	467	405	361	-23	-11	657	604	549	-16	-9
Middle Atlantic New Jersey, New York, Pennsylvania	399	306	300	-25	-2	526	446	406	-23	-9
East North Central Illinois, Indiana, Michigan, Ohio, Wisconsin	424	399	414	-2	4	580	578	626	8	8
West North Central Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota	424	455	399	-6	-12	607	578	583	-4	1
South Atlantic Delaware, Florida, Georgia, Maryland and the District of Columbia, North Carolina, South Carolina, Virginia, West Virginia	164	141	121	-26	-14	189	174	140	-26	-20
East South Central Alabama, Kentucky, Mississippi, Tennessee	213	189	176	-17	-7	246	213	207	-16	-3
West South Central Arkansas, Louisiana, Oklahoma, Texas	83	87	50	NM	NM	92	89	58	NM	NM
Mountain Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming	360	373	230	-36	-38	543	448	306	-44	-32
Pacific^b California, Oregon, Washington	186	172	81	-56	-53	294	207	109	-63	-47
U.S. Average^b	282	257	221	-22	-14	383	343	308	-20	-10

^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 in calculable).

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.gov/totalenergy/data/monthly/#summary>

for current data. • See <http://www.eia.gov/totalenergy/data/annual/#summary> 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	October					Cumulative January through October				
	Normal ^a	2013	2014	Percent Change		Normal ^a	2013	2014	Percent Change	
				Normal to 2014	2013 to 2014				Normal to 2014	2013 to 2014
New England Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont	0	1	5	NM	NM	417	616	442	6	-28
Middle Atlantic New Jersey, New York, Pennsylvania	5	15	4	NM	NM	656	806	637	-3	-21
East North Central Illinois, Indiana, Michigan, Ohio, Wisconsin	8	18	1	NM	NM	709	749	640	-10	-15
West North Central Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota	12	15	6	NM	NM	927	974	876	-6	-10
South Atlantic Delaware, Florida, Georgia, Maryland and the District of Columbia, North Carolina, South Carolina, Virginia, West Virginia	120	139	124	3	-11	1,876	1,967	2,001	7	2
East South Central Alabama, Kentucky, Mississippi, Tennessee	53	68	58	NM	NM	1,538	1,578	1,596	4	1
West South Central Arkansas, Louisiana, Oklahoma, Texas	134	170	195	46	15	2,408	2,611	2,496	4	-4
Mountain Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming	55	37	71	NM	NM	1,239	1,492	1,385	12	-7
Pacific^b California, Oregon, Washington	36	13	79	NM	NM	699	878	1,019	46	16
U.S. Average^b	53	60	67	NM	NM	1,194	1,320	1,272	7	-4

^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.gov/totalenergy/data/monthly/#summary>

for current data. • See <http://www.eia.gov/totalenergy/data/annual/#summary> 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 through 1980, 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,” FT-410, December issues.
1988 and 1989: “Report on U.S. Merchandise Trade,” Final Revisions.
1990–1992: “U.S. Merchandise Trade,” Final Report.
1993–2009: “U.S. International Trade in Goods and Services,” Annual Revisions.
2010: “U.S. International Trade in Goods and Services,” 2012 Annual Revisions.
2011–2013: “U.S. International Trade in Goods and Services,” 2013 Annual Revisions.
2014: “U.S. International Trade in Goods and Services,” FT-900, monthly.

Petroleum Imports

1974–1987: “U.S. Merchandise Trade,” FT-900, December issues, 1975–1988.
1988 and 1989: “Report on U.S. Merchandise Trade,” Final Revisions.
1990–1993: “U.S. Merchandise Trade,” Final Report.
1994–2009: “U.S. International Trade in Goods and Services,” Annual Revisions.
2010: “U.S. International Trade in Goods and Services,” 2012 Annual Revisions.
2011–2013: “U.S. International Trade in Goods and Services,” 2013 Annual Revisions.
2014: “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.
1993–2009: “U.S. International Trade in Goods and Services,” Annual Revisions.
2010: “U.S. International Trade in Goods and Services,” 2012 Annual Revisions.
2011–2013: “U.S. International Trade in Goods and Services,” 2013 Annual Revisions.
2014: “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.

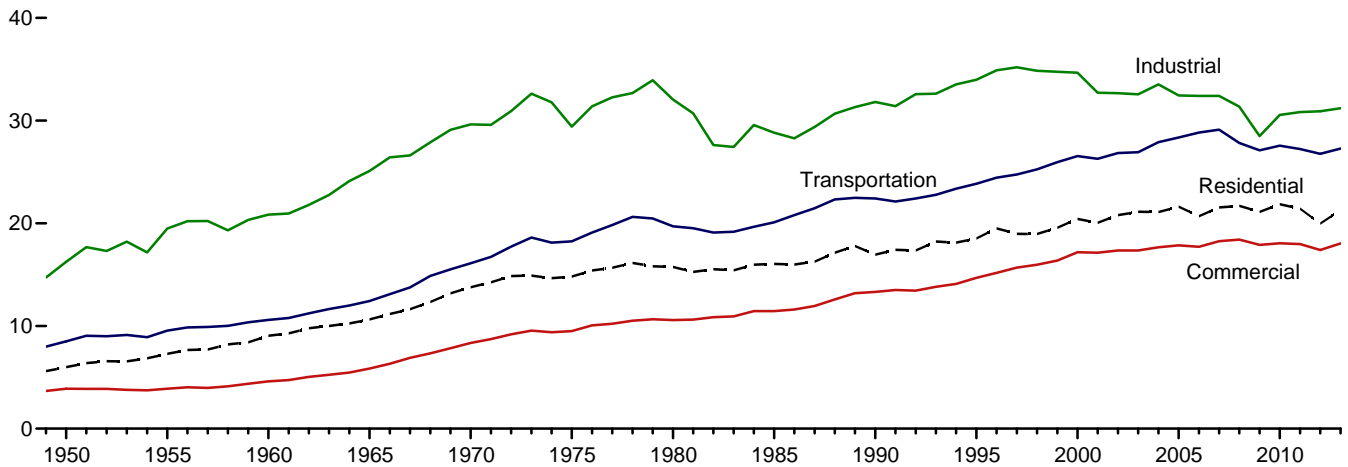
Total Merchandise

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.
1992–2009: “U.S. International Trade in Goods and Services,” Annual Revisions.
2010: “U.S. International Trade in Goods and Services,” 2012 Annual Revisions.
2011–2013: “U.S. International Trade in Goods and Services,” 2013 Annual Revisions.
2014: “U.S. International Trade in Goods and Services,” FT-900, monthly.

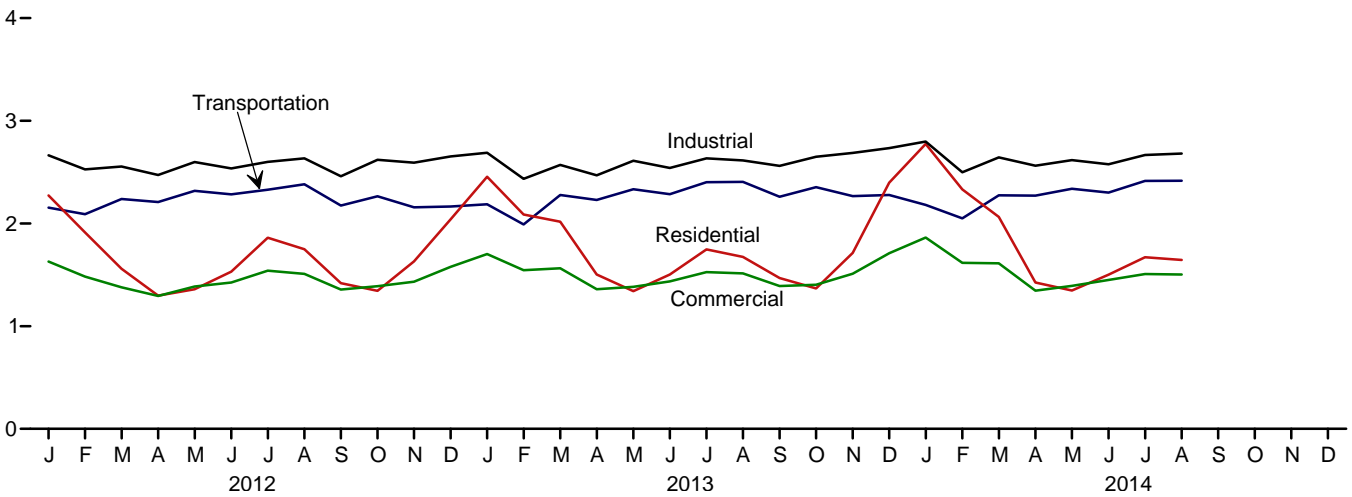
2. Energy Consumption by Sector

Figure 2.1 Energy Consumption by Sector
(Quadrillion Btu)

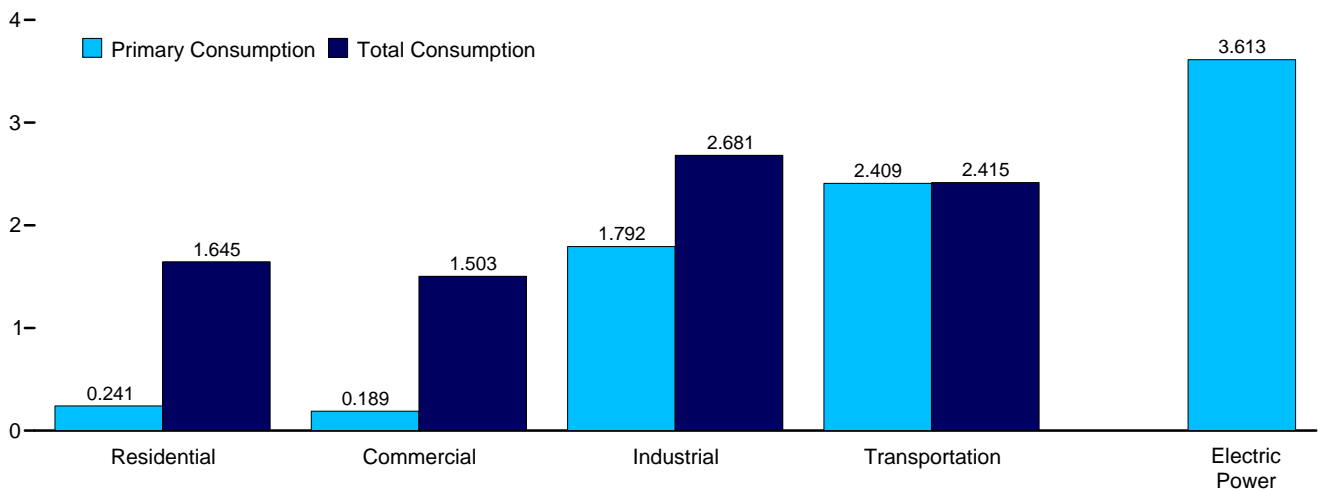
Total Consumption by End-Use Sector, 1949–2013



Total Consumption by End-Use Sector, Monthly



By Sector, August 2014



Web Page: <http://www.eia.gov/totalenergy/data/monthly/#consumption>.
Source: Table 2.1.

Table 2.1 Energy Consumption by Sector
(Trillion Btu)

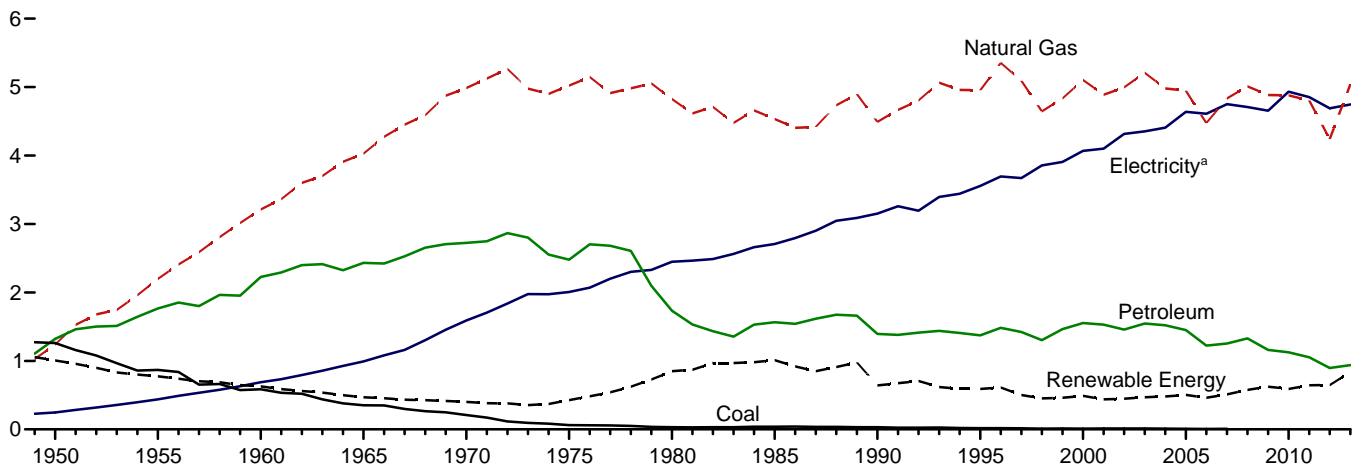
	End-Use Sectors								Electric Power Sector ^{c,d}	Balancing Item ^g	Primary Total ^h
	Residential		Commercial ^a		Industrial ^b		Transportation				
	Primary ^e	Total ^f	Primary ^e	Total ^f	Primary ^e	Total ^f	Primary ^e	Total ^f			
1950 Total	4,829	5,989	2,834	3,893	13,890	16,241	8,383	8,492	4,679	(s)	34,616
1955 Total	5,608	7,278	2,561	3,895	16,103	19,485	9,474	9,550	6,461	(s)	40,208
1960 Total	6,651	9,039	2,723	4,609	16,996	20,842	10,560	10,596	8,158	(s)	45,086
1965 Total	7,279	10,639	3,177	5,845	20,148	25,098	12,399	12,432	11,012	(s)	54,015
1970 Total	8,322	13,766	4,237	8,346	22,964	29,628	16,062	16,098	16,253	(s)	67,838
1975 Total	7,990	14,813	4,059	9,492	21,434	29,413	18,210	18,245	20,270	1	71,965
1980 Total	7,439	15,753	4,105	10,578	22,595	32,039	19,659	19,697	24,269	-1	78,067
1985 Total	7,148	16,041	3,732	11,451	19,443	28,816	20,041	20,088	26,032	-4	76,392
1990 Total	6,557	16,945	3,896	13,320	21,180	31,810	22,366	22,420	^d 30,495	-9	84,485
1995 Total	6,936	18,519	4,101	14,690	22,719	33,971	23,791	23,846	33,479	3	91,029
2000 Total	7,159	20,425	4,278	17,175	22,824	34,664	26,489	26,548	38,062	2	98,814
2001 Total	6,868	20,042	4,084	17,137	21,794	32,720	26,213	26,275	37,215	-6	96,168
2002 Total	6,912	20,791	4,132	17,345	21,799	32,662	26,781	26,842	38,016	5	97,645
2003 Total	7,238	21,125	4,298	17,346	21,536	32,555	26,845	26,919	38,028	-1	97,943
2004 Total	6,993	21,092	4,232	17,659	22,412	33,519	27,817	27,895	38,712	-6	100,161
2005 Total	6,909	21,626	4,051	17,857	21,411	32,446	28,272	28,353	39,638	(s)	100,282
2006 Total	6,168	20,688	3,747	17,710	21,536	32,401	28,751	28,830	39,428	(s)	99,629
2007 Total	6,608	21,542	3,922	18,256	21,379	32,404	29,029	29,116	40,380	-1	101,317
2008 Total	6,916	21,695	4,098	18,405	20,553	31,362	27,747	27,829	39,978	1	99,292
2009 Total	6,666	21,111	4,052	17,890	18,776	28,488	27,025	27,108	38,076	(s)	94,596
2010 Total	6,594	21,853	4,016	18,956	20,296	30,543	27,477	27,558	39,627	7	98,016
2011 Total	6,500	21,411	4,055	17,973	20,444	30,833	27,155	27,236	39,301	8	97,461
2012 January	974	2,273	544	1,630	R 1,847	R 2,664	2,147	R 2,154	3,209	R (s)	R 8,721
February	820	1,913	470	1,483	R 1,734	R 2,527	R 2,084	2,090	2,905	R -3	R 8,011
March	548	1,560	335	1,379	R 1,727	R 2,555	R 2,232	R 2,238	2,888	R -6	R 7,725
April	402	1,297	268	1,293	R 1,649	R 2,472	2,203	2,209	2,749	R -6	R 7,266
May	288	1,360	208	1,386	R 1,698	R 2,598	2,311	R 2,318	3,156	-2	R 7,659
June	243	1,531	189	1,426	R 1,659	R 2,536	R 2,277	2,283	3,408	3	R 7,779
July	229	1,862	182	1,540	R 1,678	R 2,600	2,322	2,329	3,919	R 8	R 8,338
August	236	1,749	198	1,509	R 1,733	R 2,634	R 2,376	2,382	3,731	R 5	R 8,279
September	238	1,419	198	1,356	R 1,645	R 2,460	R 2,169	R 2,175	3,160	R 3	R 7,412
October	365	1,343	271	1,389	R 1,781	R 2,621	2,259	2,265	2,941	(s)	R 7,618
November	619	1,630	375	1,433	R 1,772	R 2,592	R 2,151	R 2,157	2,896	(s)	R 7,812
December	822	2,041	467	1,578	R 1,817	R 2,653	R 2,159	R 2,165	3,173	(s)	R 8,437
Total	R 5,784	19,971	R 3,704	17,403	R 20,741	R 30,915	R 26,690	R 26,766	38,136	2	R 95,058
2013 January	R 1,091	R 2,455	586	1,702	R 1,878	R 2,689	R 2,181	R 2,188	R 3,298	R -1	R 9,033
February	R 947	R 2,087	R 527	R 1,544	R 1,683	R 2,435	R 1,984	R 1,990	R 2,916	-1	R 8,056
March	R 855	R 2,017	R 485	R 1,564	R 1,759	R 2,571	R 2,271	R 2,278	R 3,058	R -2	R 8,427
April	527	1,503	R 321	R 1,359	R 1,674	R 2,469	R 2,223	R 2,230	2,815	R -4	R 7,557
May	R 333	R 1,342	R 226	R 1,383	R 1,739	R 2,611	R 2,328	R 2,334	3,044	-3	R 7,667
June	R 252	1,504	185	1,436	R 1,675	R 2,540	R 2,279	R 2,286	R 3,374	-2	R 7,767
July	243	R 1,748	R 186	R 1,526	1,756	R 2,635	R 2,396	R 2,402	3,731	5	R 8,316
August	244	1,674	192	1,515	R 1,734	R 2,614	R 2,398	R 2,405	3,639	R 4	R 8,211
September	R 255	R 1,468	199	1,390	R 1,757	R 2,562	R 2,254	R 2,260	3,215	R 1	R 7,681
October	R 363	R 1,367	262	1,404	R 1,830	R 2,649	R 2,348	R 2,354	2,972	-2	R 7,772
November	R 676	R 1,714	R 412	1,510	R 1,865	R 2,688	R 2,261	R 2,267	2,964	-2	R 8,176
December	R 1,033	R 2,398	R 553	R 1,711	R 1,924	R 2,734	R 2,271	R 2,278	3,340	R 1	R 9,121
Total	R 6,818	R 21,274	R 4,133	R 18,043	R 21,276	R 31,197	R 27,194	R 27,272	R 38,366	R -1	R 97,785
2014 January	R 1,235	R 2,775	661	1,862	R 1,981	R 2,797	R 2,174	R 2,181	3,564	R 4	R 9,620
February	R 1,032	R 2,331	R 574	R 1,617	R 1,770	R 2,498	R 2,043	R 2,050	3,078	R 2	R 8,499
March	R 876	R 2,064	R 500	1,612	R 1,831	R 2,643	R 2,267	R 2,274	3,119	R (s)	R 8,593
April	484	R 1,426	300	R 1,345	R 1,769	R 2,562	R 2,265	R 2,271	2,786	-3	R 7,601
May	R 336	R 1,347	R 231	1,392	R 1,747	R 2,617	R 2,332	R 2,339	3,050	-2	R 7,693
June	257	R 1,502	193	1,450	R 1,706	R 2,577	R 2,294	R 2,301	R 3,379	2	R 7,832
July	R 246	R 1,671	188	1,507	R 1,787	R 2,667	R 2,407	R 2,414	3,631	R 5	R 8,264
August	241	1,645	189	1,503	1,792	2,681	2,409	2,415	3,613	4	8,248
8-Month Total	4,708	14,761	2,837	12,288	14,383	21,043	18,191	18,246	26,219	12	66,350
2013 8-Month Total	4,492	14,329	2,708	12,028	13,899	20,564	18,060	18,113	25,874	2	65,034
2012 8-Month Total	3,740	13,545	2,394	11,645	13,726	20,585	17,953	18,003	25,966	(s)	63,778

^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 1, "Electrical System Energy Losses," at end of section.
^g A balancing item. The sum of primary consumption in the five energy-use

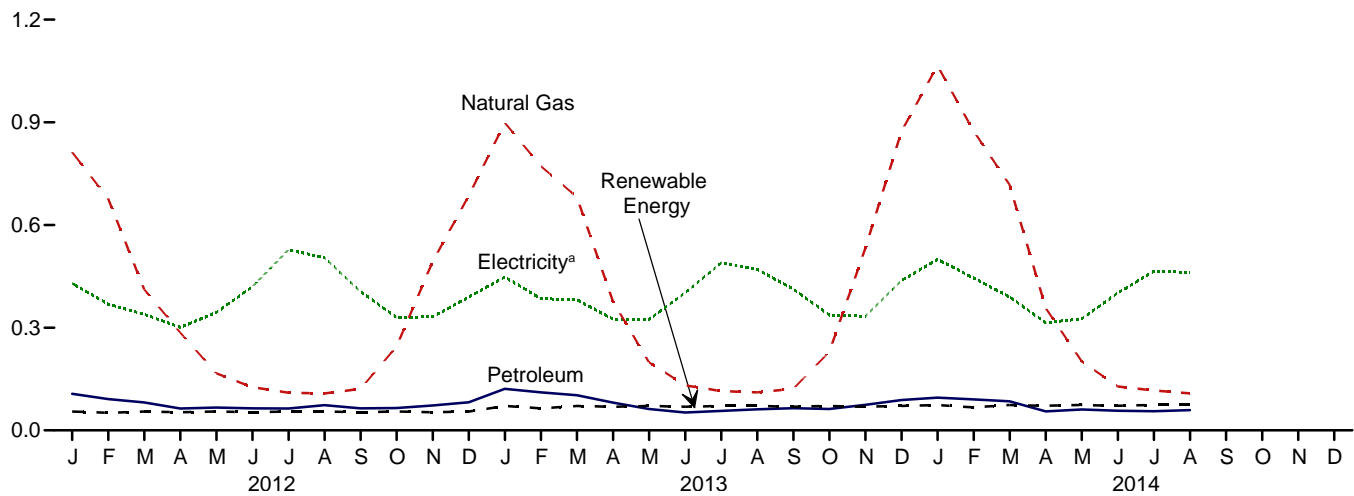
sectors equals the sum of total consumption in the four end-use sectors. However, total energy consumption does not equal the sum of the sectoral components due to the use of sector-specific conversion factors for coal and natural gas.
^h Primary energy consumption total. See Table 1.3.
R=Revised. (s)=Less than 0.5 trillion Btu and greater than -0.5 trillion Btu.
Notes: • Data are estimates, except for the electric power sector. • See Note 2, "Classification of Power Plants Into Energy-Use Sectors," at end of Section 7.
• See Note 2, "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.gov/totalenergy/data/monthly/#consumption> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.
Sources: Tables 1.3 and 2.2-2.6.

Figure 2.2 Residential Sector Energy Consumption
(Quadrillion Btu)

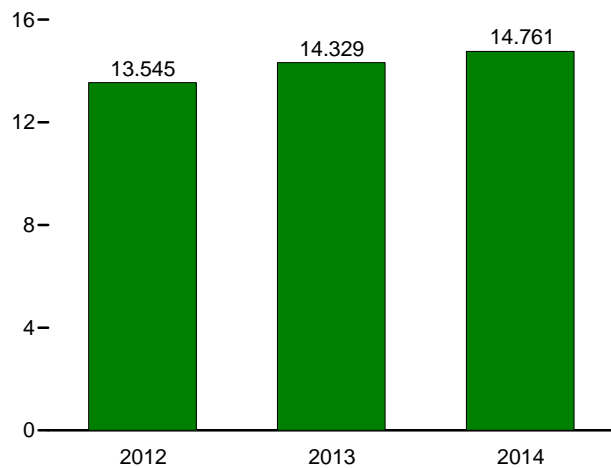
By Major Source, 1949–2013



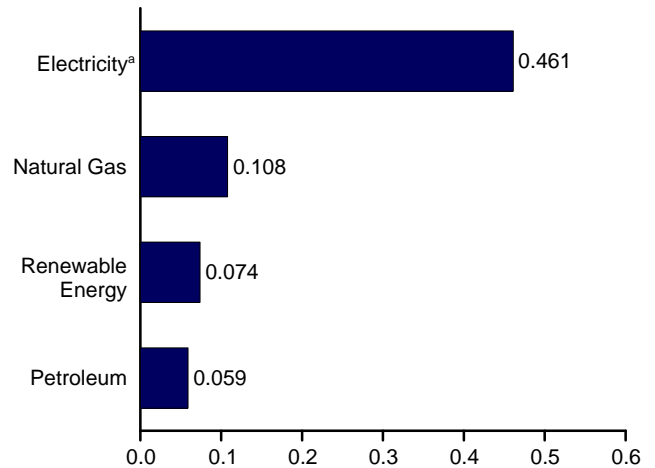
By Major Source, Monthly



Total, January–August



By Major Source, August 2014



^a Electricity retail sales.
Web Page: <http://www.eia.gov/totalenergy/data/monthly/#consumption>.
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				
1950 Total	1,261	1,240	1,322	3,824	NA	NA	1,006	1,006	4,829	246	913	5,989
1955 Total	867	2,198	1,767	4,833	NA	NA	775	775	5,608	438	1,232	7,278
1960 Total	585	3,212	2,227	6,024	NA	NA	627	627	6,651	687	1,701	9,039
1965 Total	352	4,028	2,432	6,811	NA	NA	468	468	7,279	993	2,367	10,639
1970 Total	209	4,987	2,725	7,922	NA	NA	401	401	8,322	1,591	3,852	13,766
1975 Total	63	5,023	2,479	7,564	NA	NA	425	425	7,990	2,007	4,817	14,813
1980 Total	31	4,825	1,734	6,589	NA	NA	850	850	7,439	2,448	5,866	15,753
1985 Total	39	4,534	1,565	6,138	NA	NA	1,010	1,010	7,148	2,709	6,184	16,041
1990 Total	31	4,491	1,394	5,916	6	56	580	641	6,557	3,153	7,235	16,945
1995 Total	17	4,954	1,374	6,345	7	64	520	591	6,936	3,557	8,026	18,519
2000 Total	11	5,105	1,554	6,670	9	61	420	489	7,159	4,069	9,197	20,425
2001 Total	12	4,889	1,529	6,430	9	59	370	438	6,868	4,100	9,074	20,042
2002 Total	12	4,995	1,457	6,464	10	57	380	448	6,912	4,317	9,562	20,791
2003 Total	12	5,209	1,547	6,768	13	57	400	470	7,238	4,353	9,534	21,192
2004 Total	11	4,981	1,520	6,513	14	57	410	481	6,993	4,408	9,691	21,025
2005 Total	8	4,946	1,451	6,406	16	58	430	504	6,909	4,638	10,079	21,626
2006 Total	6	4,476	1,224	5,706	18	63	380	462	6,168	4,611	9,909	20,688
2007 Total	8	4,835	1,254	6,097	22	70	420	512	6,608	4,750	10,183	21,542
2008 Total	NA	5,010	1,330	6,340	26	80	470	577	6,916	4,708	10,070	21,695
2009 Total	NA	4,883	1,161	6,044	33	89	500	622	6,666	4,656	9,789	21,111
2010 Total	NA	4,878	1,125	6,003	37	114	440	591	6,594	4,933	10,326	21,853
2011 Total	NA	4,805	1,052	5,857	40	153	450	643	6,500	4,855	10,057	21,411
2012 January	NA	R 813	107	R 920	3	16	36	55	974	430	870	2,273
February	NA	R 677	92	R 769	3	15	33	51	820	368	725	1,913
March	NA	412	81	R 494	3	16	36	55	548	339	672	1,560
April	NA	285	64	349	3	15	34	53	402	301	594	1,297
May	NA	167	66	233	3	16	36	55	288	344	728	1,360
June	NA	126	64	190	3	15	34	53	243	419	869	1,531
July	NA	110	64	174	3	16	36	55	229	527	1,106	1,862
August	NA	108	74	181	3	16	36	55	236	505	1,008	1,749
September	NA	121	64	185	3	15	34	53	238	405	775	1,419
October	NA	245	65	311	3	16	36	55	365	330	648	1,343
November	NA	493	73	566	3	15	34	53	619	331	680	1,630
December	NA	R 686	82	767	3	16	36	55	822	390	829	2,041
Total	NA	4,242	896	R 5,138	40	186	420	646	R 5,784	4,690	9,498	19,971
2013 January	NA	R 899	121	R 1,020	3	19	49	71	R 1,091	448	916	R 2,455
February	NA	R 772	111	R 883	3	17	44	64	R 947	385	755	R 2,087
March	NA	R 682	103	R 784	3	19	49	71	R 855	381	780	R 2,017
April	NA	377	81	458	3	18	48	69	527	325	R 651	1,503
May	NA	R 199	63	261	3	19	49	71	R 333	324	685	R 1,342
June	NA	R 131	52	R 183	3	18	48	69	R 252	402	850	1,504
July	NA	R 115	57	R 171	3	19	49	71	243	489	1,016	R 1,748
August	NA	111	62	R 172	3	19	49	71	244	470	960	1,674
September	NA	R 121	65	R 186	3	18	48	69	R 255	413	800	R 1,468
October	NA	R 229	63	R 292	3	19	49	71	R 363	337	668	R 1,367
November	NA	R 533	74	R 607	3	18	48	69	R 676	334	704	R 1,714
December	NA	R 873	88	R 961	3	19	49	71	R 1,033	438	927	R 2,398
Total	NA	R 5,040	939	R 5,979	40	219	580	839	R 6,818	4,746	9,710	R 21,274
2014 January	NA	R 1,066	95	R 1,161	3	21	49	74	R 1,235	500	1,040	R 2,775
February	NA	R 874	91	R 965	3	19	44	67	R 1,032	445	854	R 2,331
March	NA	R 717	85	R 802	3	21	49	74	R 876	390	798	R 2,064
April	NA	R 358	55	R 413	3	21	48	72	484	315	627	R 1,426
May	NA	R 201	61	R 262	3	21	49	74	R 336	326	685	R 1,347
June	NA	128	57	R 186	3	21	48	72	257	401	843	R 1,502
July	NA	R 116	56	R 172	3	21	49	74	R 246	465	960	R 1,671
August	NA	108	59	167	3	21	49	74	241	461	943	1,645
8-Month Total	NA	3,569	559	4,128	26	168	386	580	4,708	3,302	6,751	14,761
2013 8-Month Total	NA	3,285	649	3,934	26	146	386	558	4,492	3,225	6,612	14,329
2012 8-Month Total	NA	2,698	612	3,310	26	124	280	431	3,740	3,233	6,572	13,545

^a See "Primary Energy Consumption" in Glossary.

^b 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 1, "Electrical System Energy Losses," at end of

section.

R=Revised. NA=Not available.

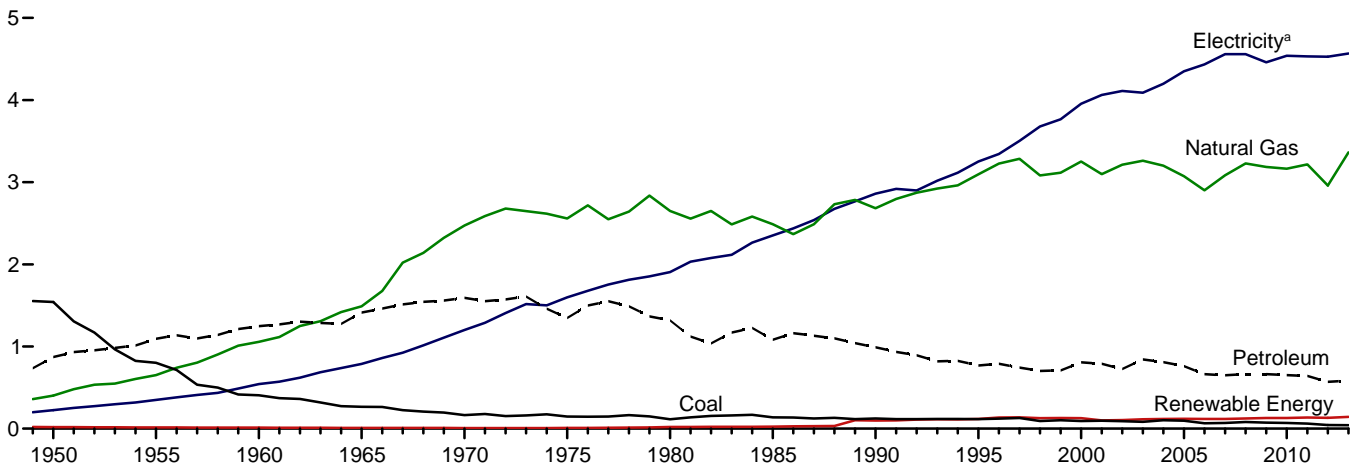
Notes: • Data are estimates, except for electricity retail sales. • See Note 2, "Energy Consumption Data and Surveys," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#consumption> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.

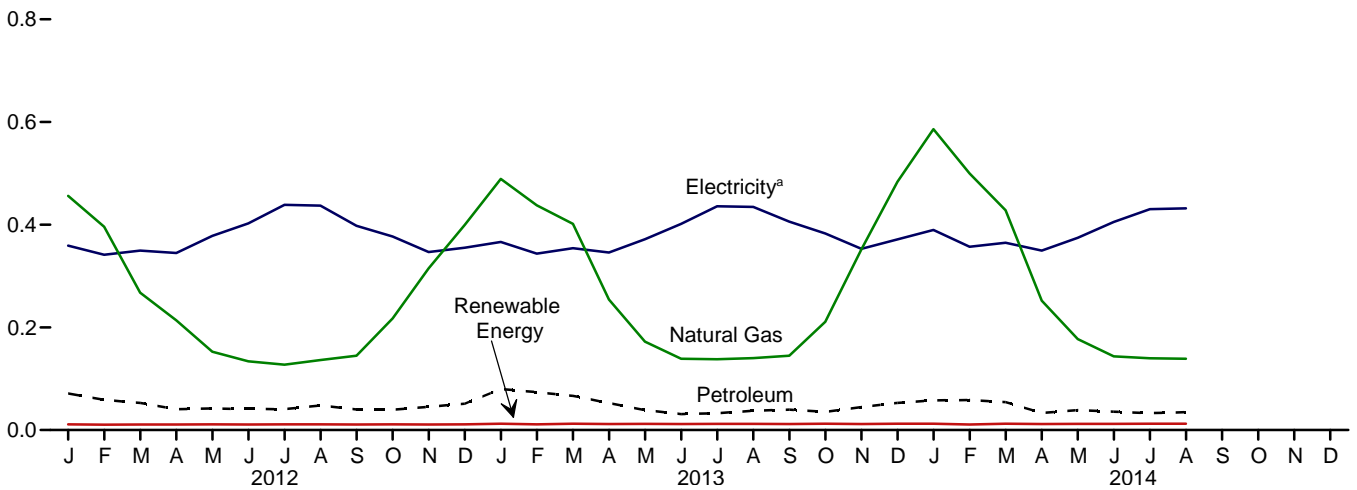
Sources: Tables 2.6, 3.8a, 4.3, 6.2, 7.6, 10.2a, A4, A5, and A6.

Figure 2.3 Commercial Sector Energy Consumption
(Quadrillion Btu)

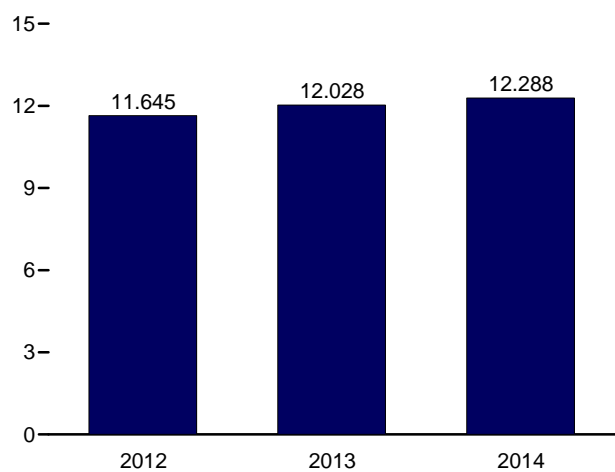
By Major Source, 1949–2013



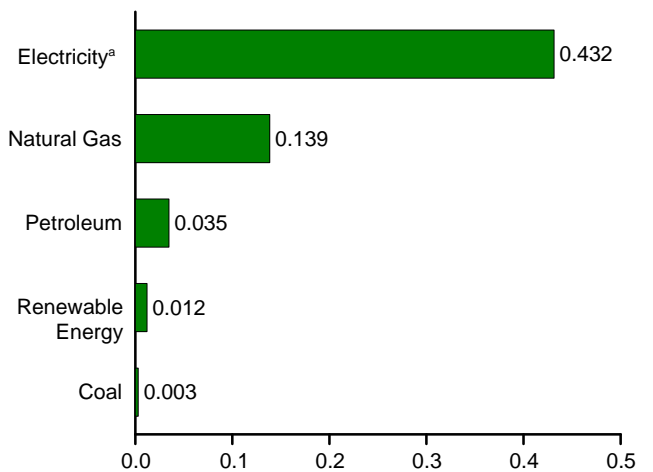
By Major Source, Monthly



Total, January–August



By Major Source, August 2014



^a Electricity retail sales.
Web Page: <http://www.eia.gov/totalenergy/data/monthly/#consumption>.
Source: Table 2.3.

Table 2.3 Commercial Sector Energy Consumption
(Trillion Btu)

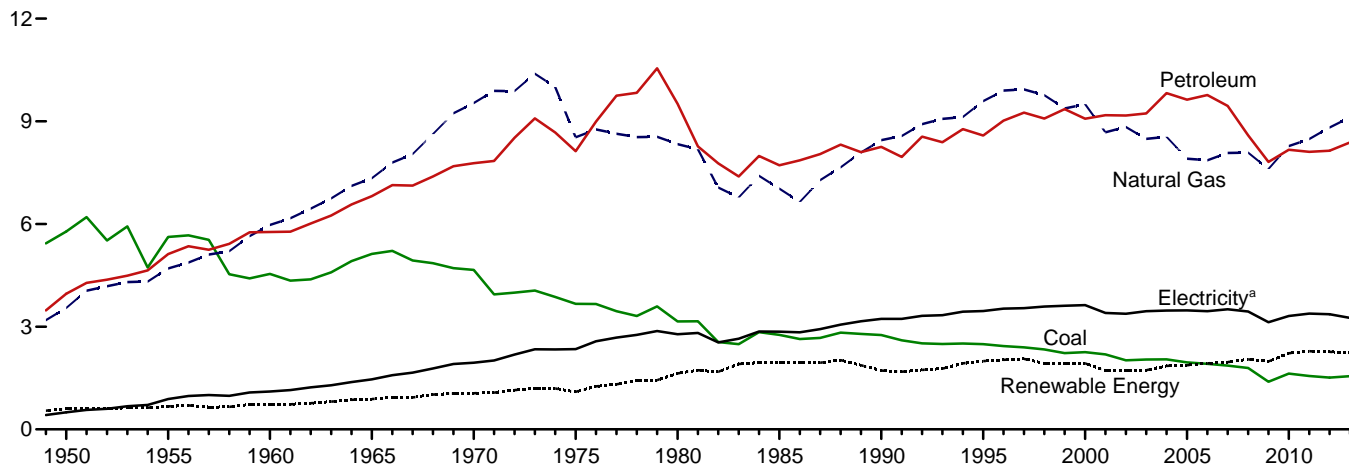
	Primary Consumption ^a										Electricity Retail Sales ^f	Electrical System Energy Losses ^g	Total	
	Fossil Fuels				Renewable Energy ^b									
	Coal	Natural Gas ^c	Petroleum ^d	Total	Hydroelectric Power ^e	Geothermal	Solar/PV	Wind	Bio-mass	Total				Total Primary
1950 Total	1,542	401	872	2,815	NA	NA	NA	NA	19	19	2,834	225	834	3,893
1955 Total	801	651	1,095	2,547	NA	NA	NA	NA	15	15	2,561	350	984	3,895
1960 Total	407	1,056	1,248	2,711	NA	NA	NA	NA	12	12	2,723	543	1,344	4,609
1965 Total	265	1,490	1,413	3,168	NA	NA	NA	NA	9	9	3,177	789	1,880	5,845
1970 Total	165	2,473	1,592	4,229	NA	NA	NA	NA	8	8	4,237	1,201	2,908	8,346
1975 Total	147	2,558	1,346	4,051	NA	NA	NA	NA	8	8	4,059	1,598	3,835	9,492
1980 Total	115	2,651	1,318	4,084	NA	NA	NA	NA	21	21	4,105	1,906	4,567	10,578
1985 Total	137	2,488	1,083	3,708	NA	NA	NA	NA	24	24	3,732	2,351	5,368	11,451
1990 Total	124	2,682	991	3,798	1	3	—	—	94	98	3,896	2,860	6,564	13,320
1995 Total	117	3,096	769	3,982	1	5	—	—	113	118	4,101	3,252	7,338	14,690
2000 Total	92	3,252	807	4,150	1	8	—	—	119	128	4,278	3,956	8,942	17,175
2001 Total	97	3,097	790	3,984	1	8	—	—	92	101	4,084	4,062	8,990	17,137
2002 Total	90	3,212	726	4,028	(s)	9	—	—	95	104	4,132	4,110	9,104	17,345
2003 Total	82	3,261	842	4,185	1	11	—	—	101	113	4,298	4,090	8,958	17,346
2004 Total	103	3,201	809	4,113	1	12	—	—	105	118	4,232	4,198	9,229	17,659
2005 Total	97	3,073	761	3,932	1	14	—	—	105	120	4,051	4,351	9,455	17,857
2006 Total	65	2,902	663	3,629	1	14	—	—	103	118	3,747	4,435	9,529	17,710
2007 Total	70	3,085	649	3,805	1	14	—	—	103	118	3,922	4,560	9,774	18,256
2008 Total	81	3,228	664	3,973	1	15	(s)	—	109	125	4,098	4,558	9,749	18,405
2009 Total	73	3,187	663	3,923	1	17	(s)	(s)	112	129	4,052	4,460	9,378	17,890
2010 Total	70	3,165	651	3,886	1	19	(s)	(s)	111	130	4,016	4,539	9,501	18,056
2011 Total	62	3,216	641	3,919	(s)	20	1	(s)	115	136	4,055	4,531	9,388	17,973
2012 Total	44	2,960	571	3,574	(s)	20	1	1	109	131	R 3,704	4,528	9,170	17,403
2012 January	5	456	71	533	(s)	2	(s)	(s)	9	11	544	359	727	1,630
February	5	396	59	459	(s)	2	(s)	(s)	9	10	470	341	672	1,483
March	4	267	53	325	(s)	2	(s)	(s)	9	11	335	350	694	1,379
April	3	214	41	257	(s)	2	(s)	(s)	9	11	268	345	681	1,293
May	3	152	42	197	(s)	2	(s)	(s)	9	11	208	378	799	1,386
June	3	134	41	178	(s)	2	(s)	(s)	9	11	189	403	834	1,426
July	3	127	41	171	(s)	2	(s)	(s)	9	11	182	439	919	1,540
August	3	136	48	187	(s)	2	(s)	(s)	9	11	198	437	873	1,509
September	3	145	40	187	(s)	2	(s)	(s)	9	11	198	398	760	1,356
October	3	217	39	260	(s)	2	(s)	(s)	9	11	271	377	741	1,389
November	4	315	45	364	(s)	2	(s)	(s)	9	11	375	347	711	1,433
December	5	400	51	455	(s)	2	(s)	(s)	9	11	467	355	756	1,578
2013 Total	41	R 3,363	586	R 3,990	(s)	20	3	1	119	143	R 4,133	4,567	R 9,343	R 18,043
2013 January	5	489	80	574	(s)	2	(s)	(s)	10	12	586	366	749	1,702
February	5	R 438	74	R 516	(s)	2	(s)	(s)	9	11	R 527	344	674	R 1,544
March	5	R 401	67	R 473	(s)	2	(s)	(s)	10	12	R 485	354	724	R 1,564
April	3	R 254	52	R 310	(s)	2	(s)	(s)	10	12	R 321	346	692	R 1,359
May	3	172	39	R 214	(s)	2	(s)	(s)	10	12	R 226	372	785	R 1,383
June	3	139	31	173	(s)	2	(s)	(s)	10	12	185	401	R 849	1,436
July	3	R 138	33	R 174	(s)	2	(s)	(s)	10	12	R 186	436	905	R 1,526
August	3	140	38	180	(s)	2	(s)	(s)	10	12	192	435	888	1,515
September	2	145	40	187	(s)	2	(s)	(s)	10	12	199	406	786	1,390
October	3	211	35	R 249	(s)	2	(s)	(s)	10	12	262	383	759	1,404
November	4	352	45	401	(s)	2	(s)	(s)	10	12	R 412	353	745	1,510
December	4	R 484	53	R 541	(s)	2	(s)	(s)	10	12	R 553	371	786	R 1,711
2014 Total	30	2,365	346	2,741	(s)	13	3	1	79	96	2,837	3,102	6,349	12,288
2013 8-Month Total	28	2,172	413	2,613	(s)	13	2	(s)	79	95	2,708	3,054	6,266	12,028
2012 8-Month Total	29	1,883	395	2,307	(s)	13	1	(s)	72	87	2,394	3,051	6,199	11,645

^a See "Primary Energy Consumption" in Glossary.
^b 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 1, "Electrical System Energy Losses," at end of section.

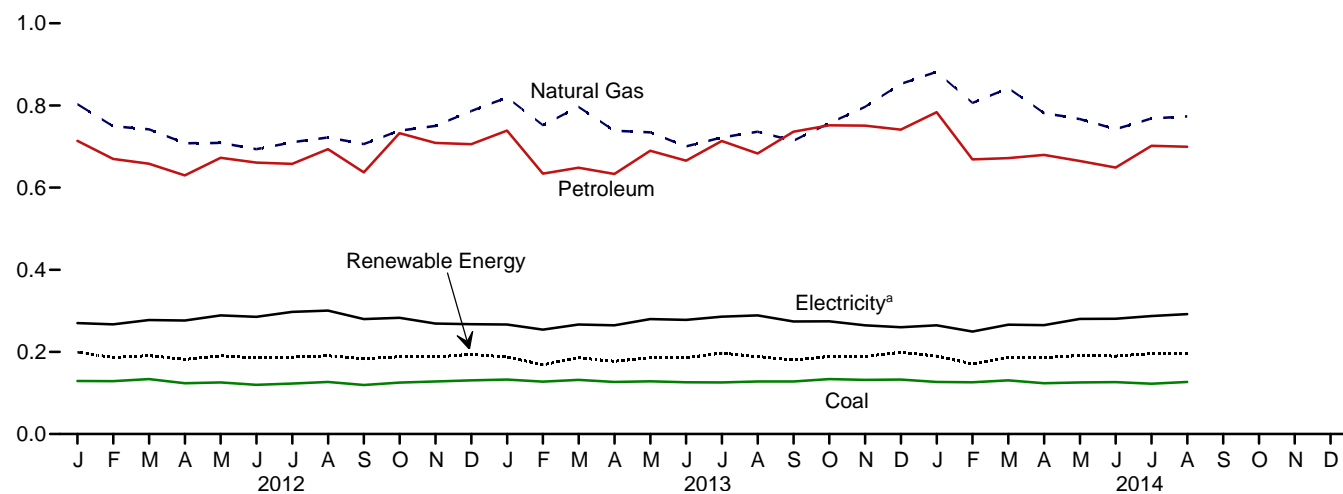
R=Revised. NA=Not available. —=No data reported. (s)=Less than 0.5 trillion Btu.
Notes: • Data are estimates, except for coal totals beginning in 2008; hydroelectric power; solar/PV; wind; and electricity retail sales beginning in 1979.
• The commercial sector includes commercial combined-heat-and-power (CHP) and commercial electricity-only plants. See Note 2, "Classification of Power Plants Into Energy-Use Sectors," at end of Section 7. • See Note 2, "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.gov/totalenergy/data/monthly/#consumption> (Excel and CSV files) for all available annual data beginning in 1949 and monthly 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)

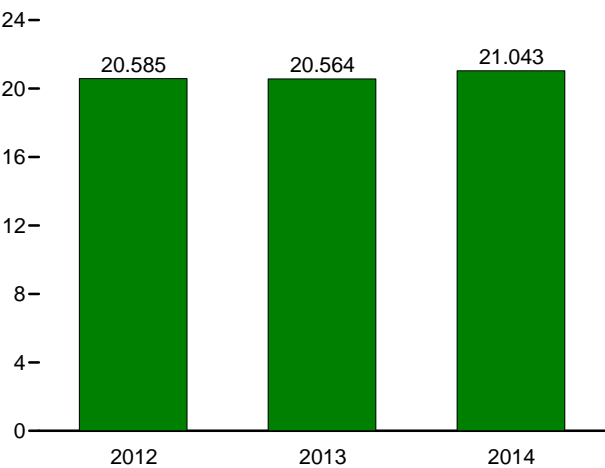
By Major Source, 1949–2013



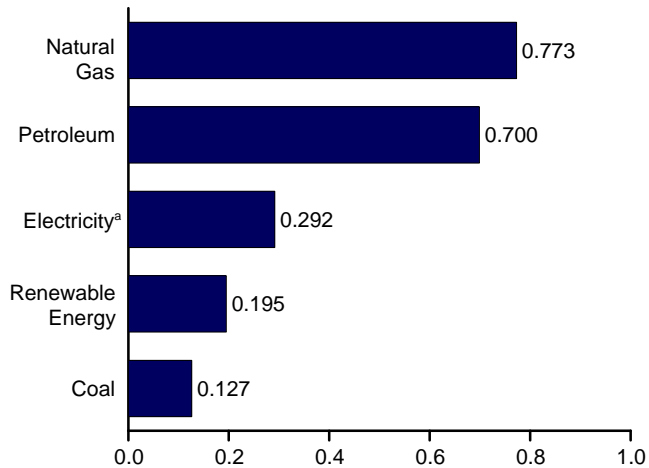
By Major Source, Monthly



Total, January–August



By Major Source, August 2014



^a Electricity retail sales.
Web Page: <http://www.eia.gov/totalenergy/data/monthly/#consumption>.
Source: Table 2.4.

Table 2.4 Industrial Sector Energy Consumption
(Trillion Btu)

	Primary Consumption ^a										Total Primary	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	Solar/PV	Wind	Bio-mass	Total				
1950 Total	5,781	3,546	3,960	13,288	69	NA	NA	NA	532	602	13,890	500	1,852	16,241
1955 Total	5,620	4,701	5,123	15,434	38	NA	NA	NA	631	669	16,103	887	2,495	19,485
1960 Total	4,543	5,973	5,766	16,277	39	NA	NA	NA	680	719	16,996	1,107	2,739	20,842
1965 Total	5,127	7,339	6,813	19,260	33	NA	NA	NA	855	888	20,148	1,463	3,487	25,098
1970 Total	4,656	9,536	7,776	21,911	34	NA	NA	NA	1,019	1,053	22,964	1,948	4,716	29,628
1975 Total	3,667	8,532	8,127	20,339	32	NA	NA	NA	1,063	1,096	21,434	2,346	5,632	29,413
1980 Total	3,155	8,333	9,509	20,962	33	NA	NA	NA	1,600	1,633	22,595	2,781	6,664	32,039
1985 Total	2,760	7,032	7,714	17,492	33	NA	NA	NA	1,918	1,951	19,443	2,855	6,518	28,816
1990 Total	2,756	8,451	8,251	19,463	31	2	-	-	1,684	1,717	21,180	3,226	7,404	31,810
1995 Total	2,488	9,592	8,586	20,727	55	3	-	-	1,934	1,992	22,719	3,455	7,796	33,971
2000 Total	2,256	9,500	9,075	20,896	42	4	-	-	1,881	1,928	22,824	3,631	8,208	34,664
2001 Total	2,192	8,676	9,178	20,075	33	5	-	-	1,681	1,719	21,794	3,400	7,526	32,720
2002 Total	2,019	8,832	9,168	20,079	39	5	-	-	1,676	1,720	21,799	3,379	7,484	32,662
2003 Total	2,041	8,488	9,230	19,811	43	3	-	-	1,679	1,725	21,536	3,454	7,565	32,555
2004 Total	2,047	8,550	9,825	20,559	33	4	-	-	1,817	1,853	22,412	3,473	7,635	33,519
2005 Total	1,954	7,907	9,633	19,538	32	4	-	-	1,837	1,873	21,411	3,477	7,557	32,446
2006 Total	1,914	7,861	9,770	19,606	29	4	-	-	1,897	1,930	21,536	3,451	7,414	32,401
2007 Total	1,865	8,074	9,451	19,414	16	5	-	-	1,944	1,965	21,379	3,507	7,518	32,404
2008 Total	1,793	8,083	8,588	18,506	17	5	-	-	2,026	2,047	20,553	3,444	7,365	31,362
2009 Total	1,392	7,609	7,814	16,791	18	4	-	-	1,963	1,985	18,776	3,130	6,582	28,488
2010 Total	1,631	8,278	8,171	18,075	16	4	(s)	-	2,201	2,221	20,296	3,313	6,934	30,543
2011 Total	1,561	8,481	8,108	18,161	17	4	(s)	(s)	2,261	2,283	20,444	3,382	7,007	30,833
2012 January	R 129	R 803	714	R 1,648	3	(s)	(s)	(s)	196	199	R 1,847	270	547	R 2,664
February	R 129	R 749	670	R 1,548	2	(s)	(s)	(s)	184	186	R 1,734	267	525	R 2,527
March	R 134	R 742	658	R 1,536	2	(s)	(s)	(s)	188	191	R 1,727	277	550	R 2,555
April	R 124	R 708	630	R 1,468	2	(s)	(s)	(s)	180	182	R 1,649	276	546	R 2,472
May	R 125	R 709	672	R 1,507	2	(s)	(s)	(s)	188	191	R 1,698	289	611	R 2,598
June	R 120	R 694	661	R 1,474	2	(s)	(s)	(s)	183	185	R 1,659	285	591	R 2,536
July	R 123	R 710	658	R 1,491	1	(s)	(s)	(s)	186	187	R 1,678	298	624	R 2,600
August	R 127	R 722	694	R 1,542	1	(s)	(s)	(s)	189	191	R 1,733	301	600	R 2,634
September	R 119	R 706	637	R 1,461	2	(s)	(s)	(s)	181	183	R 1,645	280	535	R 2,460
October	R 125	R 739	733	R 1,593	2	(s)	(s)	(s)	186	188	R 1,781	283	556	R 2,621
November	R 128	750	709	R 1,584	2	(s)	(s)	(s)	185	188	R 1,772	269	552	R 2,592
December	R 131	786	706	R 1,623	2	(s)	(s)	(s)	192	194	R 1,817	267	569	R 2,653
Total	R 1,513	R 8,819	8,140	R 18,476	22	4	(s)	(s)	2,238	2,265	R 20,741	3,363	6,811	R 30,915
2013 January	133	R 819	739	R 1,690	3	(s)	(s)	(s)	184	187	R 1,878	267	545	R 2,689
February	128	R 752	634	R 1,514	3	(s)	(s)	(s)	165	169	R 1,683	254	498	R 2,435
March	132	R 796	648	R 1,574	3	(s)	(s)	(s)	182	186	R 1,759	266	545	R 2,571
April	127	R 739	633	R 1,497	2	(s)	(s)	(s)	174	177	R 1,674	265	530	R 2,469
May	128	R 735	690	R 1,553	3	(s)	(s)	(s)	182	186	R 1,739	280	592	R 2,611
June	126	R 700	666	R 1,489	3	(s)	(s)	(s)	183	186	R 1,675	278	588	R 2,540
July	126	R 722	713	R 1,559	3	(s)	(s)	(s)	194	197	R 1,756	286	593	R 2,635
August	128	R 736	683	R 1,545	2	(s)	(s)	(s)	186	189	R 1,734	289	590	R 2,614
September	128	R 714	736	R 1,577	2	(s)	(s)	(s)	178	180	R 1,757	274	530	R 2,562
October	134	R 757	752	R 1,642	2	(s)	(s)	(s)	186	189	R 1,830	275	545	R 2,649
November	132	R 796	751	R 1,676	2	(s)	(s)	(s)	187	189	R 1,865	265	558	R 2,688
December	133	R 853	741	R 1,725	3	(s)	(s)	(s)	196	199	R 1,924	260	550	R 2,734
Total	1,553	R 9,120	8,386	R 19,042	32	4	(s)	(s)	2,197	2,234	R 21,276	3,258	6,664	R 31,197
2014 January	127	R 882	784	R 1,791	3	(s)	(s)	(s)	186	190	R 1,981	265	551	R 2,797
February	126	R 806	669	R 1,599	2	(s)	(s)	(s)	168	171	R 1,770	250	479	R 2,498
March	131	R 842	672	R 1,644	2	(s)	(s)	(s)	184	187	R 1,831	266	546	R 2,643
April	124	R 782	680	R 1,584	2	(s)	(s)	(s)	184	186	R 1,769	265	528	R 2,562
May	125	R 767	665	R 1,555	2	(s)	(s)	(s)	189	192	R 1,747	280	590	R 2,617
June	126	R 742	649	R 1,516	2	(s)	(s)	(s)	188	190	R 1,706	281	590	R 2,577
July	R 123	R 768	702	R 1,591	2	(s)	(s)	(s)	194	196	R 1,787	287	593	R 2,667
August	127	R 773	700	R 1,597	2	(s)	(s)	(s)	193	195	R 1,792	292	596	R 2,681
8-Month Total	1,008	6,363	5,519	12,877	17	3	(s)	(s)	1,486	1,506	14,383	2,186	4,473	21,043
2013 8-Month Total	1,027	6,000	5,406	12,422	23	3	(s)	(s)	1,451	1,477	13,899	2,184	4,480	20,564
2012 8-Month Total	1,010	5,837	5,356	12,214	15	3	(s)	(s)	1,494	1,512	13,726	2,264	4,595	20,585

^a See "Primary Energy Consumption" in Glossary.

^b 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 1, "Electrical System Energy Losses," at end of

section.

R=Revised. NA=Not available. --No data reported. (s)=Less than 0.5 trillion Btu.

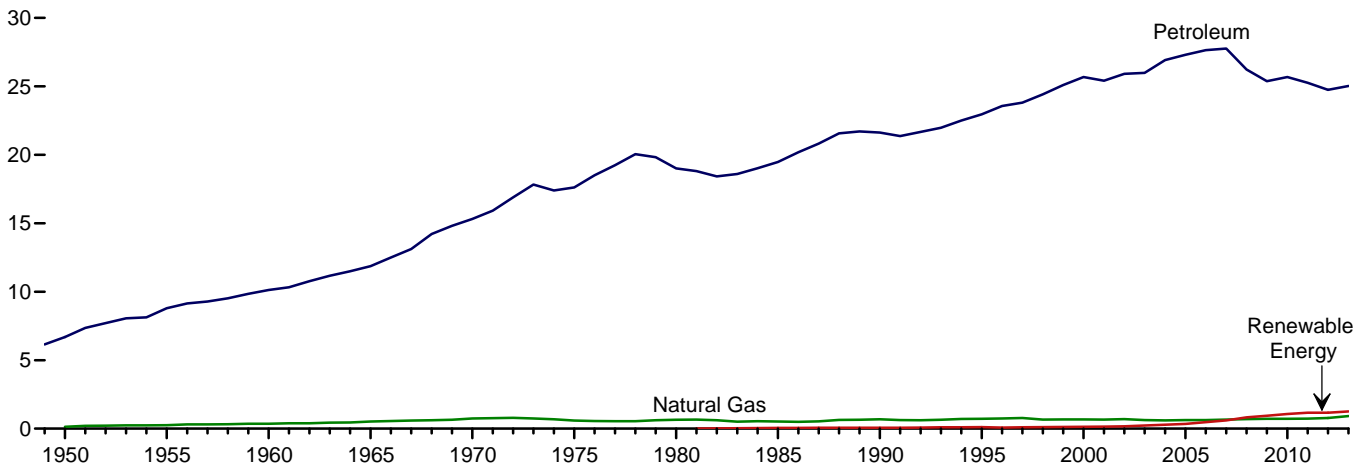
Notes: • Data are estimates, except for coal totals; hydroelectric power in 1949–1978 and 1989 forward; solar/PV; wind; and electricity retail sales. • The industrial sector includes industrial combined-heat-and-power (CHP) and industrial electricity-only plants. See Note 2, "Classification of Power Plants Into Energy-Use Sectors," at end of Section 7. • See Note 2, "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.gov/totalenergy/data/monthly/#consumption> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.

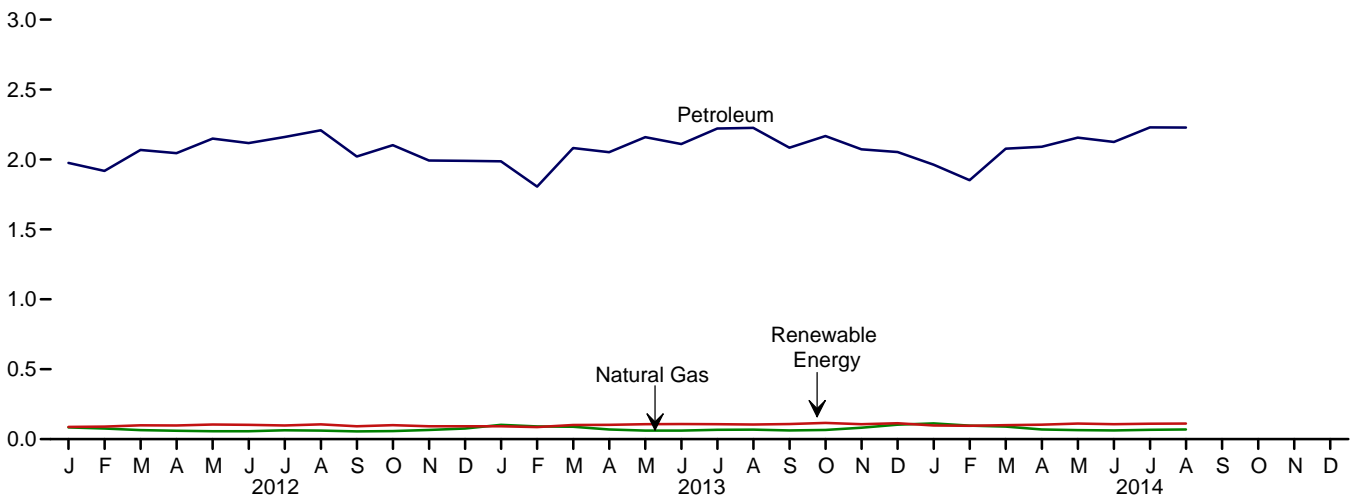
Sources: Tables 1.4a, 1.4b, 2.6, 3.8b, 4.3, 6.2, 7.6, 10.2b, A4, A5, and A6.

Figure 2.5 Transportation Sector Energy Consumption
(Quadrillion Btu)

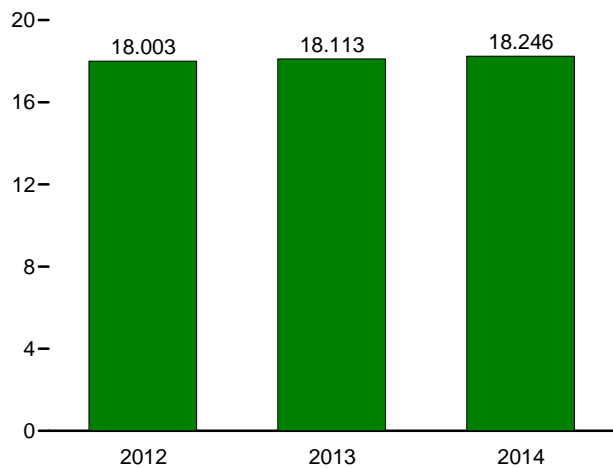
By Major Source, 1949–2013



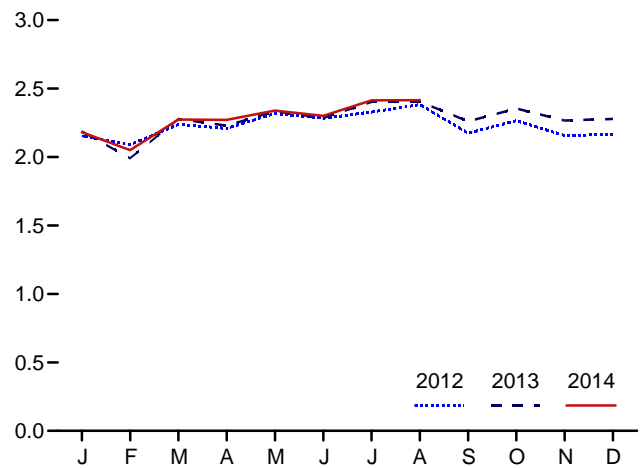
By Major Source, Monthly



Total, January–August



Total, Monthly



Web Page: <http://www.eia.gov/totalenergy/data/monthly/#consumption>.
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				
1950 Total	1,564	130	6,690	8,383	NA	8,383	23	86	8,492
1955 Total	421	254	8,799	9,474	NA	9,474	20	56	9,550
1960 Total	75	359	10,125	10,560	NA	10,560	10	26	10,596
1965 Total	16	517	11,866	12,399	NA	12,399	10	24	12,432
1970 Total	7	745	15,310	16,062	NA	16,062	11	26	16,098
1975 Total	1	595	17,615	18,210	NA	18,210	10	24	18,245
1980 Total	(g)	650	19,009	19,659	NA	19,659	11	27	19,697
1985 Total	(g)	519	19,472	19,992	50	20,041	14	32	20,088
1990 Total	(g)	680	21,626	22,306	60	22,366	16	37	22,420
1995 Total	(g)	724	22,955	23,679	112	23,791	17	38	23,846
2000 Total	(g)	672	25,682	26,354	135	26,489	18	42	26,548
2001 Total	(g)	658	25,412	26,070	142	26,213	20	43	26,275
2002 Total	(g)	699	25,913	26,612	170	26,781	19	42	26,842
2003 Total	(g)	627	25,987	26,615	230	26,845	23	51	26,919
2004 Total	(g)	602	26,925	27,527	290	27,817	25	54	27,895
2005 Total	(g)	624	27,309	27,933	339	28,272	26	56	28,353
2006 Total	(g)	625	27,651	28,276	475	28,751	25	54	28,830
2007 Total	(g)	663	27,763	28,427	602	29,029	28	60	29,116
2008 Total	(g)	692	26,230	26,922	825	27,747	27	56	27,829
2009 Total	(g)	715	25,375	26,090	935	27,025	26	56	27,108
2010 Total	(g)	719	25,683	26,402	1,075	27,477	26	55	27,558
2011 Total	(g)	734	25,264	25,997	1,158	27,155	26	54	27,236
2012 January	(g)	84	1,975	R 2,060	87	2,147	2	4	R 2,154
February	(g)	R 77	1,918	R 1,995	89	R 2,084	2	4	R 2,090
March	(g)	R 65	2,068	R 2,133	99	R 2,232	2	4	R 2,238
April	(g)	R 60	2,046	2,105	98	2,203	2	4	2,209
May	(g)	57	2,150	R 2,207	104	2,311	2	4	R 2,318
June	(g)	57	2,118	R 2,175	102	R 2,277	2	4	2,283
July	(g)	63	2,161	2,224	98	2,322	2	5	2,329
August	(g)	61	2,209	2,270	106	R 2,376	2	4	2,382
September	(g)	55	2,022	R 2,077	92	R 2,169	2	4	R 2,175
October	(g)	R 58	2,102	R 2,160	100	2,259	2	4	2,265
November	(g)	66	1,993	2,059	92	R 2,151	2	4	R 2,157
December	(g)	R 77	1,991	R 2,067	92	R 2,159	2	4	R 2,165
Total	(g)	R 780	24,751	R 25,531	1,159	R 26,690	25	51	R 26,766
2013 January	(g)	R 102	1,987	R 2,089	92	R 2,181	2	5	R 2,188
February	(g)	R 91	1,807	R 1,897	86	R 1,984	2	4	R 1,990
March	(g)	R 89	2,081	R 2,170	101	R 2,271	2	4	R 2,278
April	(g)	R 69	2,052	R 2,121	102	R 2,223	2	4	R 2,230
May	(g)	R 61	2,160	R 2,221	107	R 2,328	2	4	R 2,334
June	(g)	R 61	2,110	R 2,171	108	R 2,279	2	5	R 2,286
July	(g)	R 67	2,222	R 2,289	107	R 2,396	2	5	R 2,402
August	(g)	R 68	2,226	R 2,293	105	R 2,398	2	4	R 2,405
September	(g)	R 62	2,084	R 2,146	108	R 2,254	2	4	R 2,260
October	(g)	R 65	2,167	R 2,233	116	R 2,348	2	4	R 2,354
November	(g)	R 82	2,073	R 2,154	107	R 2,261	2	4	R 2,267
December	(g)	R 103	2,054	R 2,157	114	R 2,271	2	5	R 2,278
Total	(g)	R 920	25,022	R 25,942	1,252	R 27,194	26	53	R 27,272
2014 January	(g)	R 112	1,963	R 2,075	98	R 2,174	2	5	R 2,181
February	(g)	R 96	1,852	R 1,948	95	R 2,043	2	5	R 2,050
March	(g)	R 90	2,078	R 2,168	100	R 2,267	2	5	R 2,274
April	(g)	R 69	2,091	R 2,161	104	R 2,265	2	4	R 2,271
May	(g)	R 65	2,156	R 2,221	111	R 2,332	2	5	R 2,339
June	(g)	R 62	2,125	R 2,188	106	R 2,294	2	4	R 2,301
July	(g)	R 67	2,229	R 2,296	111	R 2,407	2	5	R 2,414
August	(g)	69	2,229	2,298	111	2,409	2	4	2,415
8-Month Total	(g)	631	16,723	17,354	837	18,191	18	37	18,246
2013 8-Month Total	(g)	608	16,644	17,252	808	18,060	17	36	18,113
2012 8-Month Total	(g)	524	16,644	17,168	784	17,953	17	34	18,003

^a See "Primary Energy Consumption" in Glossary.

^b 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. Data are for natural gas consumed in the operation of pipelines (primarily in compressors) and small amounts consumed as vehicle fuel—see Table 4.3.

^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.

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 1, "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.

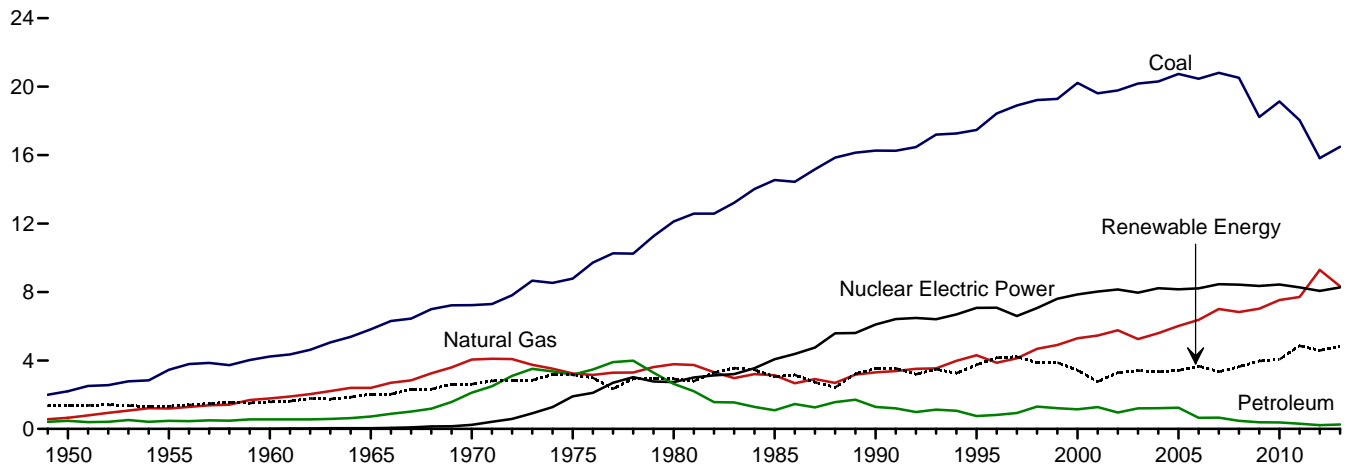
Notes: • Data are estimates, except for coal totals through 1977; and electricity retail sales beginning in 1979. • See Note 2, "Energy Consumption Data and Surveys," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#consumption> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.

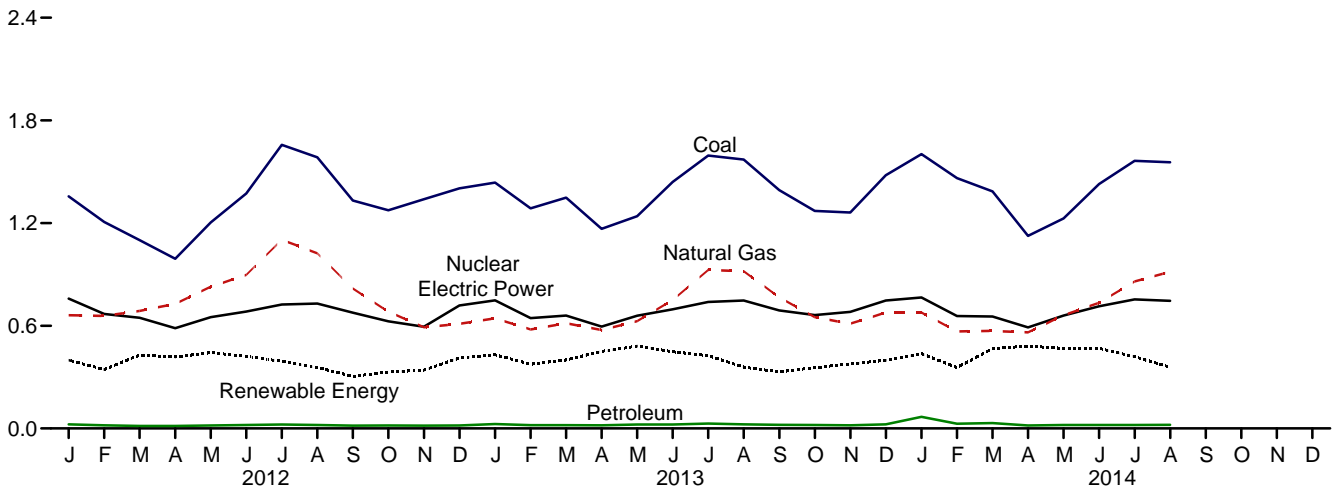
Sources: Tables 2.6, 3.8c, 4.3, 6.2, 7.6, 10.2b, A4, A5, and A6.

Figure 2.6 Electric Power Sector Energy Consumption
(Quadrillion Btu)

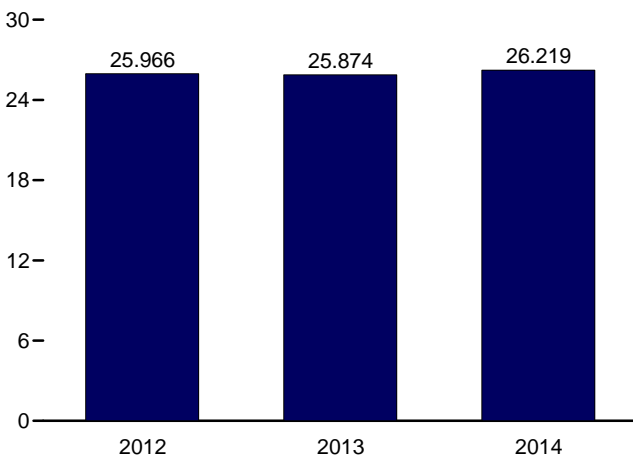
By Major Source, 1949–2013



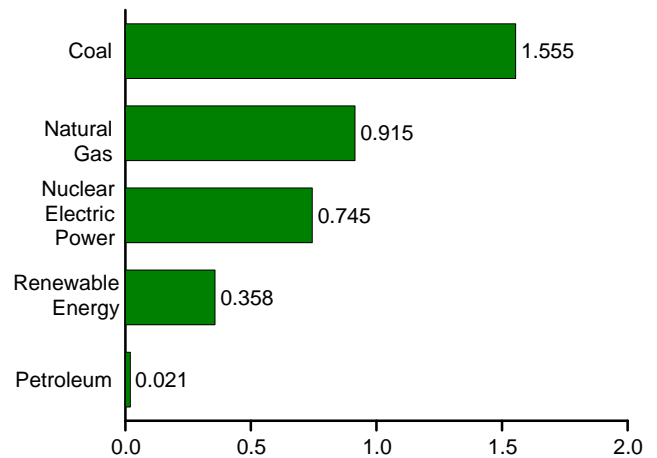
By Major Source, Monthly



Total, January–August



By Major Source, August 2014



Web Page: <http://www.eia.gov/totalenergy/data/monthly/#consumption>.
Source: Table 2.6.

Table 2.6 Electric Power Sector Energy Consumption
(Trillion Btu)

	Primary Consumption ^a												Elec- tricity Net Imports ^e	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			
1950 Total	2,199	651	472	3,322	0	1,346	NA	NA	NA	5	1,351	6	4,679	
1955 Total	3,458	1,194	471	5,123	0	1,322	NA	NA	NA	3	1,325	14	6,461	
1960 Total	4,228	1,785	553	6,565	6	1,569	(s)	NA	NA	2	1,571	15	8,158	
1965 Total	5,821	2,395	722	8,938	43	2,026	2	NA	NA	3	2,031	(s)	11,012	
1970 Total	7,227	4,054	2,117	13,399	239	2,600	6	NA	NA	4	2,609	7	16,253	
1975 Total	8,786	3,240	3,166	15,191	1,900	3,122	34	NA	NA	2	3,158	21	20,270	
1980 Total	12,123	3,778	2,634	18,534	2,739	2,867	53	NA	NA	4	2,925	71	24,269	
1985 Total	14,542	3,135	1,090	18,767	4,076	2,937	97	(s)	(s)	14	3,049	140	26,032	
1990 Total	16,261	3,309	1,289	20,859	6,104	3,014	161	4	29	317	3,524	8	30,495	
1995 Total	17,466	4,302	755	22,523	7,075	3,149	138	5	33	422	3,747	134	33,479	
2000 Total	20,220	5,293	1,144	26,658	7,862	2,768	144	5	57	453	3,427	115	38,062	
2001 Total	19,614	5,458	1,277	26,348	8,029	2,209	142	6	70	337	2,763	75	37,215	
2002 Total	19,783	5,767	961	26,511	8,145	2,650	147	6	105	380	3,288	72	38,016	
2003 Total	20,185	5,246	1,205	26,636	7,960	2,749	146	5	113	397	3,411	22	38,028	
2004 Total	20,305	5,595	1,212	27,112	8,223	2,655	148	6	142	388	3,339	39	38,712	
2005 Total	20,737	6,015	1,235	27,986	8,161	2,670	147	6	178	406	3,406	85	39,638	
2006 Total	20,462	6,375	648	27,485	8,215	2,839	145	5	264	412	3,665	63	39,428	
2007 Total	20,808	7,005	657	28,470	8,459	2,430	145	6	341	423	3,345	107	40,380	
2008 Total	20,513	6,829	468	27,810	8,426	2,494	146	9	546	435	3,630	112	39,978	
2009 Total	18,225	7,022	390	25,638	8,355	2,650	146	9	721	441	3,967	116	38,076	
2010 Total	19,133	7,528	378	27,039	8,434	2,521	148	12	923	459	4,064	89	39,627	
2011 Total	18,035	7,712	303	26,050	8,269	3,085	149	17	1,167	437	4,855	127	39,301	
2012 January	1,356	662	24	2,041	758	217	12	1	130	39	398	11	3,209	
February	1,207	657	18	1,882	669	191	11	1	105	36	344	9	2,905	
March	1,100	687	15	1,802	647	244	12	2	133	37	429	10	2,888	
April	991	728	14	1,733	585	248	12	3	121	33	417	13	2,749	
May	1,204	828	17	2,048	651	271	12	4	119	36	442	15	3,156	
June	1,373	897	20	2,290	683	252	12	5	114	38	421	14	3,408	
July	1,658	1,102	23	2,783	724	251	13	5	84	40	392	19	3,919	
August	1,585	1,023	20	2,627	729	218	12	4	81	40	355	19	3,731	
September	1,331	818	17	2,166	676	166	12	4	84	38	304	14	3,160	
October	1,275	682	17	1,973	626	155	13	4	120	38	330	12	2,941	
November	1,340	591	17	1,948	594	176	13	3	111	38	341	13	2,896	
December	1,403	611	18	2,031	719	217	13	3	138	40	412	11	3,173	
Total	15,821	9,287	219	25,327	8,062	2,606	148	40	1,339	453	4,586	161	38,136	
2013 January	1,437	643	26	R 2,106	748	236	14	3	139	38	430	14	R 3,298	
February	1,286	578	19	1,883	644	192	12	4	132	34	375	13	R 2,916	
March	1,349	615	19	R 1,983	660	194	14	6	149	39	401	14	R 3,058	
April	1,167	574	18	1,759	595	233	13	7	164	33	450	12	2,815	
May	1,240	626	23	1,889	659	269	13	8	155	38	481	16	3,044	
June	1,440	R 750	22	2,213	696	257	13	9	131	39	449	17	R 3,374	
July	1,594	R 926	28	R 2,548	739	256	13	8	106	41	425	18	3,731	
August	1,571	918	24	2,513	748	204	13	9	91	41	359	19	3,639	
September	1,393	766	21	2,180	690	159	13	9	111	39	331	15	3,215	
October	1,271	650	20	1,941	662	163	14	9	130	39	355	13	2,972	
November	1,262	612	18	1,892	681	167	12	7	151	40	377	15	2,964	
December	1,480	677	24	2,181	747	200	14	7	134	44	398	13	3,340	
Total	16,489	R 8,338	262	25,088	8,268	2,529	157	85	1,595	465	4,831	179	R 38,366	
2014 January	1,603	677	68	2,348	766	202	13	7	171	43	437	13	3,564	
February	1,463	567	27	2,057	656	163	12	8	133	39	355	9	3,078	
March	1,386	570	32	1,987	654	229	13	13	169	44	467	11	3,119	
April	1,126	561	17	1,703	591	237	13	15	178	38	481	10	2,786	
May	1,227	661	20	1,909	660	250	13	17	148	40	468	14	3,050	
June	1,428	735	20	2,183	714	244	13	19	149	43	468	13	R 3,379	
July	1,563	R 859	20	2,442	754	229	13	17	115	45	419	16	3,631	
August	1,555	915	21	2,491	745	186	13	18	97	44	358	18	3,613	
8-Month Total	11,351	5,545	225	17,121	5,540	1,741	103	115	1,160	336	3,454	104	26,219	
2013 8-Month Total	11,083	5,632	178	16,893	5,489	1,841	105	53	1,068	303	3,370	122	25,874	
2012 8-Month Total	10,473	6,584	151	17,208	5,447	1,892	97	25	887	300	3,200	110	25,966	

^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 Net imports equal imports minus exports.
^f 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 2, "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.gov/totalenergy/data/monthly/#consumption> (Excel and CSV files) for all available annual data beginning in 1949 and monthly 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. 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, geothermal, solar thermal, photovoltaic, and wind energy sources. 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.

Note 2. Energy Consumption Data and Surveys. Most of the data in this section of the *Monthly Energy Review*

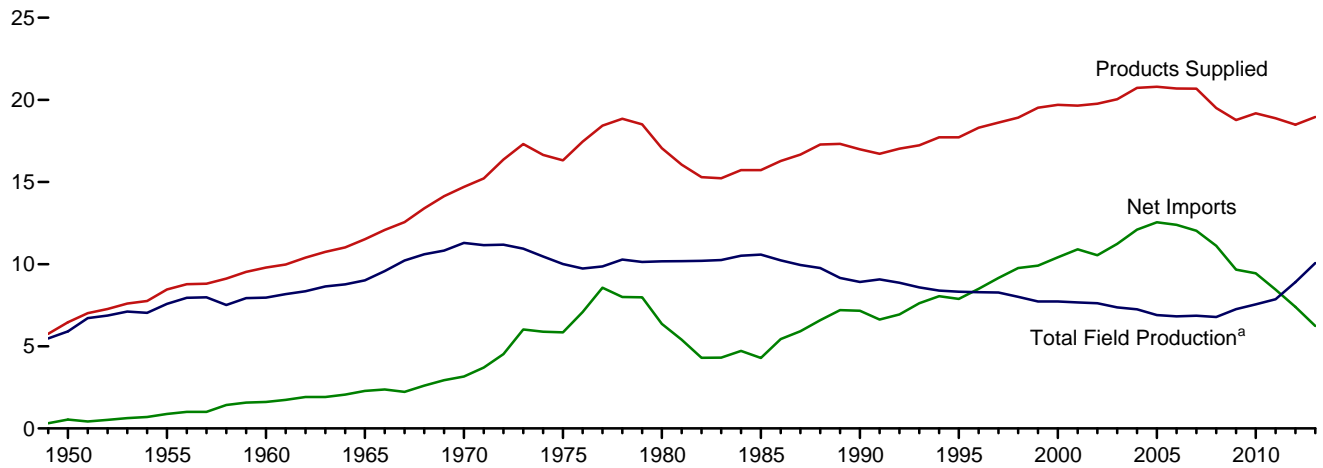
(*MER*) are developed from a group of energy-related surveys, typically called "supply surveys," conducted by the U.S. Energy Information Administration (EIA). Supply surveys are directed to suppliers and marketers of specific energy sources. They measure the quantities of specific energy sources produced, 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.

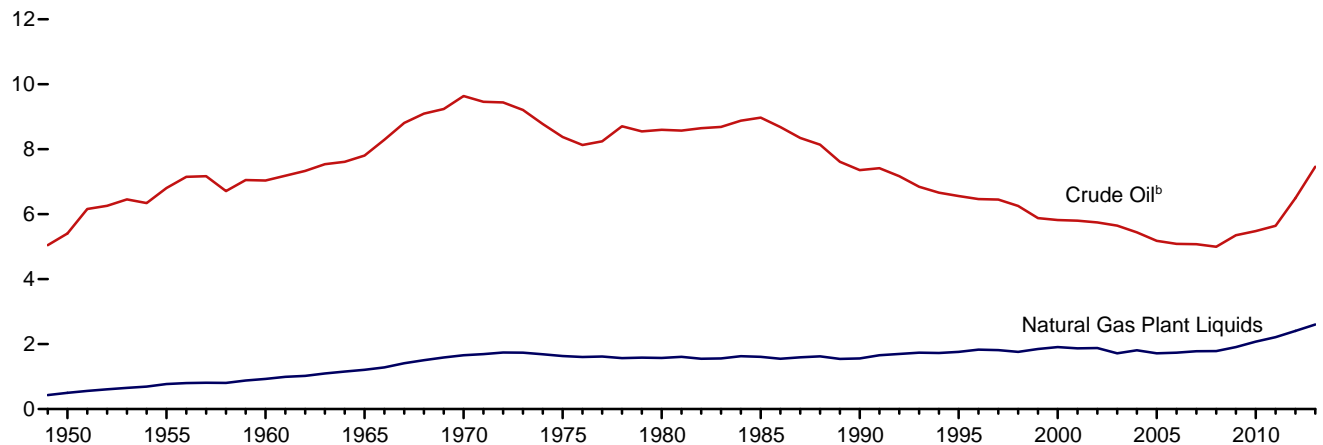
3. Petroleum

Figure 3.1 Petroleum Overview
(Million Barrels per Day)

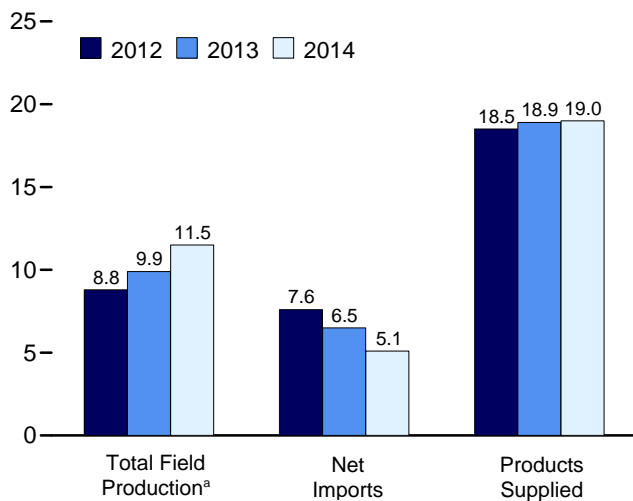
Overview, 1949–2013



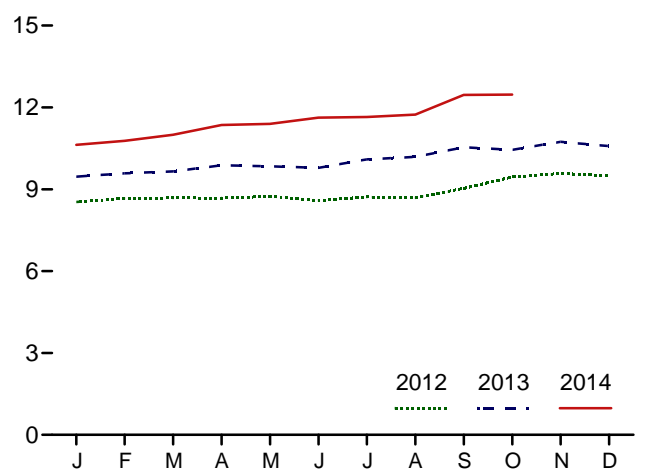
Crude Oil and Natural Gas Plant Liquids Field Production, 1949–2013



Overview, January–October



Total Field Production,^a Monthly



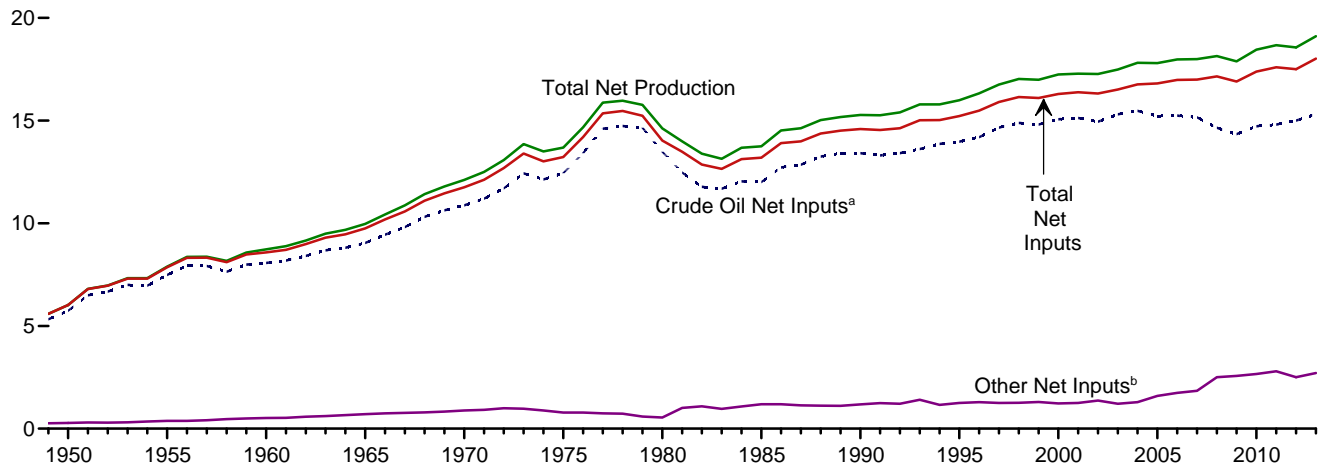
^a Crude oil, including lease condensate, and natural gas plant liquids field production.

^b Includes lease condensate.

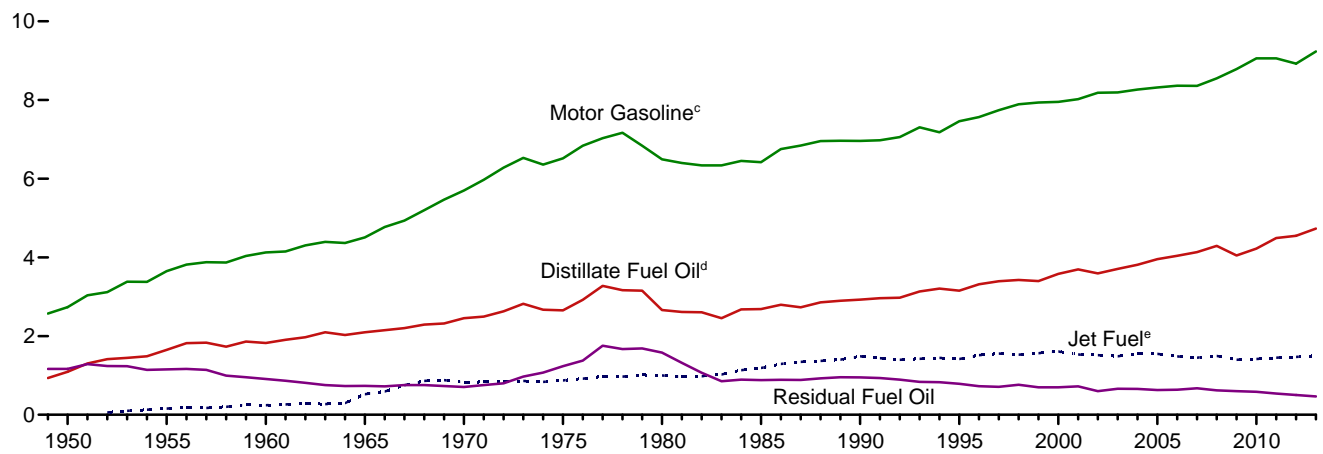
Web Page: <http://www.eia.gov/totalenergy/data/monthly/#petroleum>.
Source: Table 3.1.

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

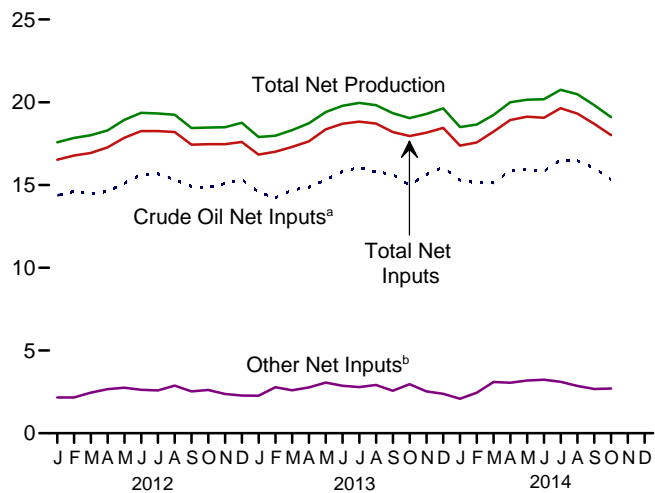
Net Inputs and Net Production, 1949–2013



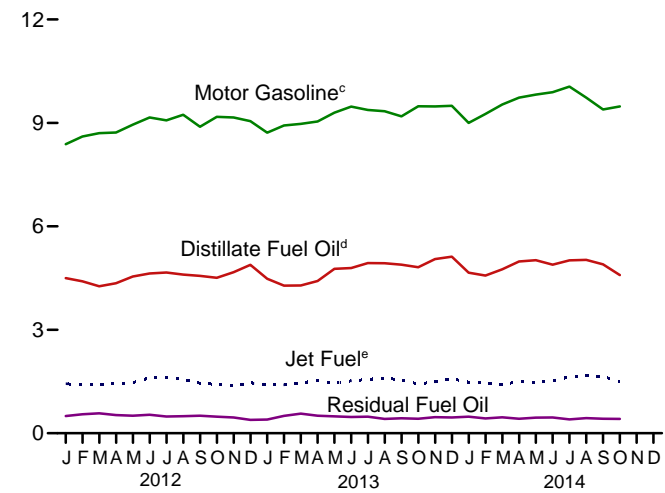
Net Production, Selected Products, 1949–2013



Net Inputs and Net Production, Monthly



Net Production, Selected Products, Monthly



^a Includes lease condensate.

^b Natural gas plant liquids and other liquids.

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

^d Beginning in 2009, includes renewable diesel fuel (including biodie-

sel) blended into distillate fuel oil.

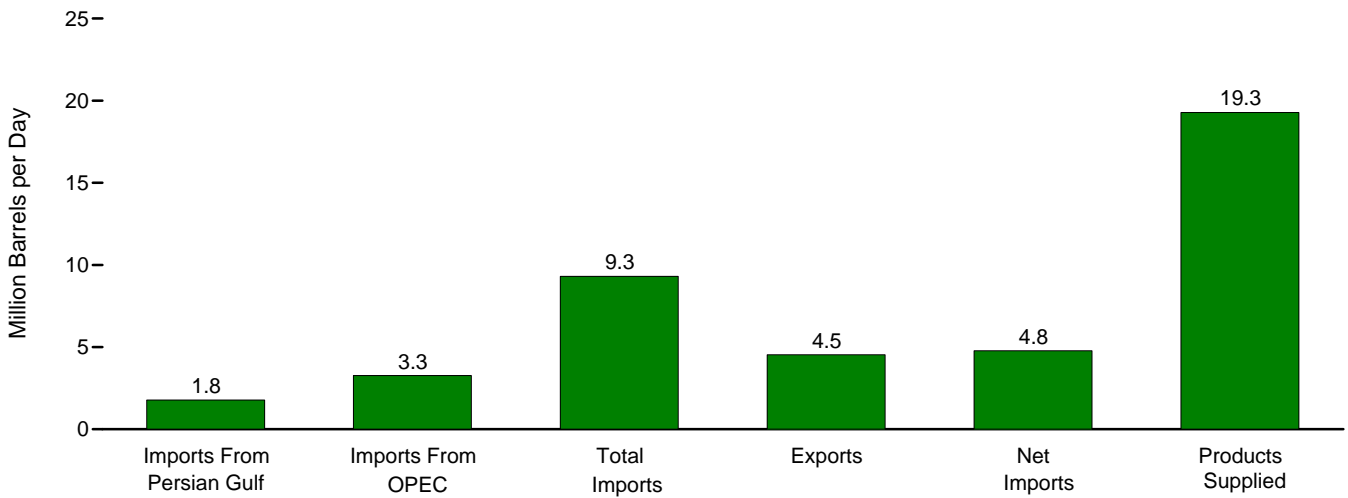
^e Beginning in 2005, includes kerosene-type jet fuel only.

Web Page: <http://www.eia.gov/totalenergy/data/monthly/#petroleum>.

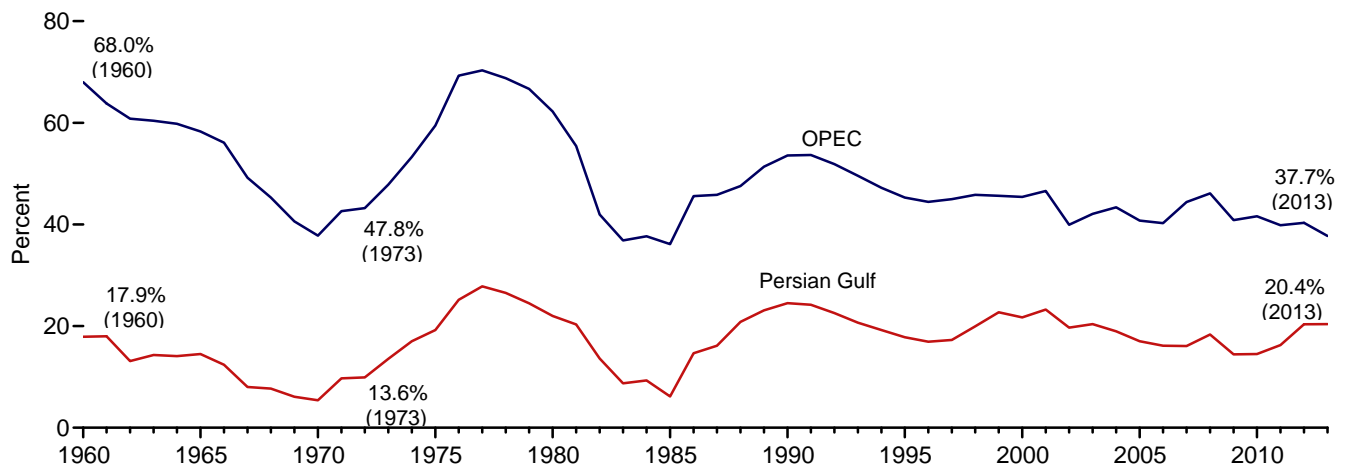
Source: Table 3.2.

Figure 3.3a Petroleum Trade: Overview

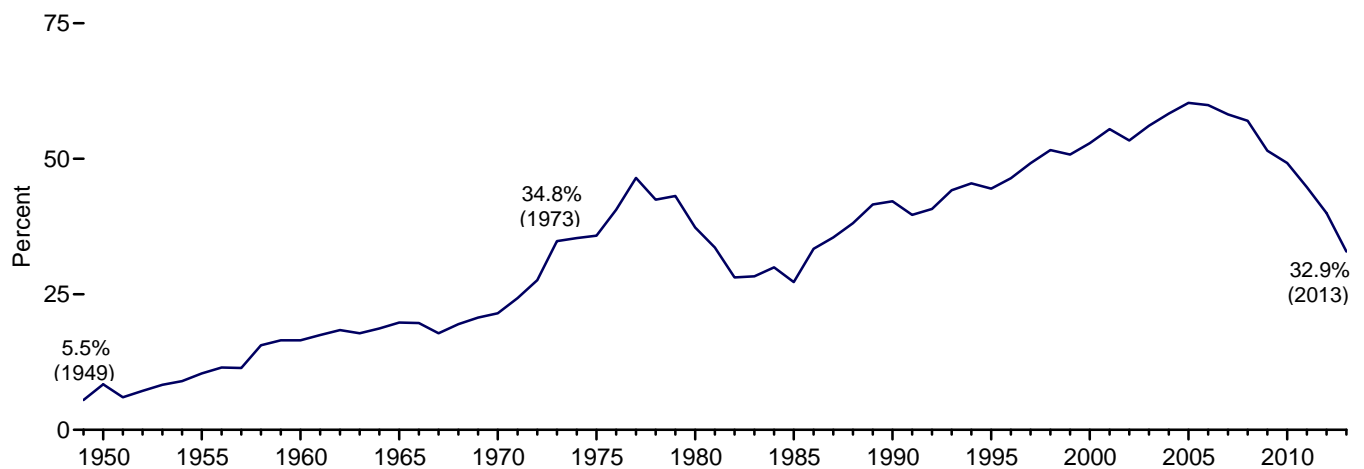
Overview, August 2014



Imports From OPEC and Persian Gulf as Share of Total Imports, 1960–2013



Net Imports as Share of Products Supplied, 1949–2013



Note: OPEC=Organization of the Petroleum Exporting Countries.
 Web Page: <http://www.eia.gov/totalenergy/data/monthly/#petroleum>.
 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
1950 Average	NA	NA	850	305	545	6,458	NA	NA	13.2	8.4	NA	NA
1955 Average	NA	NA	1,248	368	880	8,455	NA	NA	14.8	10.4	NA	NA
1960 Average	326	1,233	1,815	202	1,613	9,797	3.3	12.6	18.5	16.5	17.9	68.0
1965 Average	359	1,439	2,468	187	2,281	11,512	3.1	12.5	21.4	19.8	14.5	58.3
1970 Average	184	1,294	3,419	259	3,161	14,697	1.3	8.8	23.3	21.5	5.4	37.8
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
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 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 Average	1,689	4,776	11,691	2,024	9,667	18,771	9.0	25.4	62.3	51.5	14.4	40.9
2010 Average	1,711	4,906	11,793	2,353	9,441	19,180	8.9	25.6	61.5	49.2	14.5	41.6
2011 Average	1,861	4,555	11,436	2,986	8,450	18,882	9.9	24.1	60.6	44.8	16.3	39.8
2012 January	2,158	4,159	10,910	2,870	8,041	18,304	11.8	22.7	59.6	43.9	19.8	38.1
February	1,948	3,989	10,490	2,994	7,496	18,643	10.4	21.4	56.3	40.2	18.6	38.0
March	2,209	4,301	10,605	3,116	7,489	18,164	12.2	23.7	58.4	41.2	20.8	40.6
April	2,236	4,402	10,611	3,272	7,339	18,211	12.3	24.2	58.3	40.3	21.1	41.5
May	2,628	4,730	11,117	3,207	7,910	18,589	14.1	25.4	59.8	42.6	23.6	42.5
June	2,395	4,655	11,424	3,216	8,208	18,857	12.7	24.7	60.6	43.5	21.0	40.7
July	2,154	4,387	10,794	3,237	7,556	18,515	11.6	23.7	58.3	40.8	20.0	40.6
August	2,071	4,385	10,880	3,081	7,798	19,156	10.8	22.9	56.8	40.7	19.0	40.3
September	2,071	4,272	10,475	3,164	7,312	18,092	11.4	23.6	57.9	40.4	19.8	40.8
October	2,142	4,187	10,047	3,255	6,793	18,705	11.5	22.4	53.7	36.3	21.3	41.7
November	2,100	4,228	10,181	3,404	6,777	18,528	11.3	22.8	55.0	36.6	20.6	41.5
December	1,751	3,556	9,644	3,636	6,008	18,120	9.7	19.6	53.2	33.2	18.2	36.9
Average	2,156	4,271	10,598	3,205	7,393	18,490	11.7	23.1	57.3	40.0	20.3	40.3
2013 January	1,798	3,866	10,089	2,881	7,208	18,749	9.6	20.6	53.8	38.4	17.8	38.3
February	1,838	3,115	9,286	3,280	6,007	18,643	9.9	16.7	49.8	32.2	19.8	33.5
March	2,087	3,741	9,534	3,111	6,423	18,531	11.3	20.2	51.5	34.7	21.9	39.2
April	1,804	3,799	10,168	3,235	6,933	18,584	9.7	20.4	54.7	37.3	17.7	37.4
May	2,135	4,064	10,174	3,472	6,703	18,779	11.4	21.6	54.2	35.7	21.0	39.9
June	1,894	3,837	9,882	3,594	6,288	18,806	10.1	20.4	52.5	33.4	19.2	38.8
July	1,927	3,789	10,300	3,851	6,449	19,257	10.0	19.7	53.5	33.5	18.7	36.8
August	2,160	3,901	10,249	3,725	6,524	19,125	11.3	20.4	53.6	34.1	21.1	38.1
September	2,146	3,921	10,036	3,632	6,405	19,252	11.1	20.4	52.1	33.3	21.4	39.1
October	1,933	3,411	9,608	4,074	5,535	19,312	10.0	17.7	49.8	28.7	20.1	35.5
November	2,143	3,535	9,385	3,967	5,419	19,491	11.0	18.1	48.2	27.8	22.8	37.7
December	2,225	3,613	9,539	4,602	4,938	18,983	11.7	19.0	50.3	26.0	23.3	37.9
Average	2,009	3,720	9,859	3,621	6,237	18,961	10.6	19.6	52.0	32.9	20.4	37.7
2014 January	2,187	3,314	9,264	4,021	5,243	18,921	11.6	17.5	49.0	27.7	23.6	35.8
February	2,172	3,398	9,151	3,611	5,540	18,994	11.4	17.9	48.2	29.2	23.7	37.1
March	2,117	3,380	9,240	3,858	5,382	18,526	11.4	18.2	49.9	29.0	22.9	36.6
April	2,274	3,668	9,584	3,966	5,618	18,783	12.1	19.5	51.0	29.9	23.7	38.3
May	1,929	3,313	9,380	4,121	5,260	18,516	10.4	17.9	50.7	28.4	20.6	35.3
June	1,941	3,251	8,815	4,156	4,659	18,833	10.3	17.3	46.8	24.7	22.0	36.9
July	2,145	3,598	9,472	4,479	4,994	19,164	11.2	18.8	49.4	26.1	22.6	38.0
August	R 1,778	R 3,272	R 9,309	R 4,533	R 4,776	R 19,276	R 9.2	R 17.0	R 48.3	R 24.8	R 19.1	R 35.1
September	NA	NA	E 8,990	E 3,822	E 5,168	E 19,259	NA	NA	E 46.7	E 26.8	NA	NA
October	NA	NA	E 8,829	E 3,995	E 4,834	E 19,459	NA	NA	E 45.4	E 24.8	NA	NA
10-Month Average ...	NA	NA	E 9,205	E 4,061	E 5,143	E 18,973	NA	NA	E 48.5	E 27.1	NA	NA
2013 10-Month Average ...	1,974	3,750	9,938	3,487	6,451	18,907	10.4	19.8	52.6	34.1	19.9	37.7
2012 10-Month Average ...	2,203	4,348	10,736	3,141	7,595	18,524	11.9	23.5	58.0	41.0	20.5	40.5

^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: • For the feature article "Measuring Dependence on Imported Oil," published in the August 1995 *Monthly Energy Review*, see http://www.eia.gov/totalenergy/data/monthly/pdf/historical/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

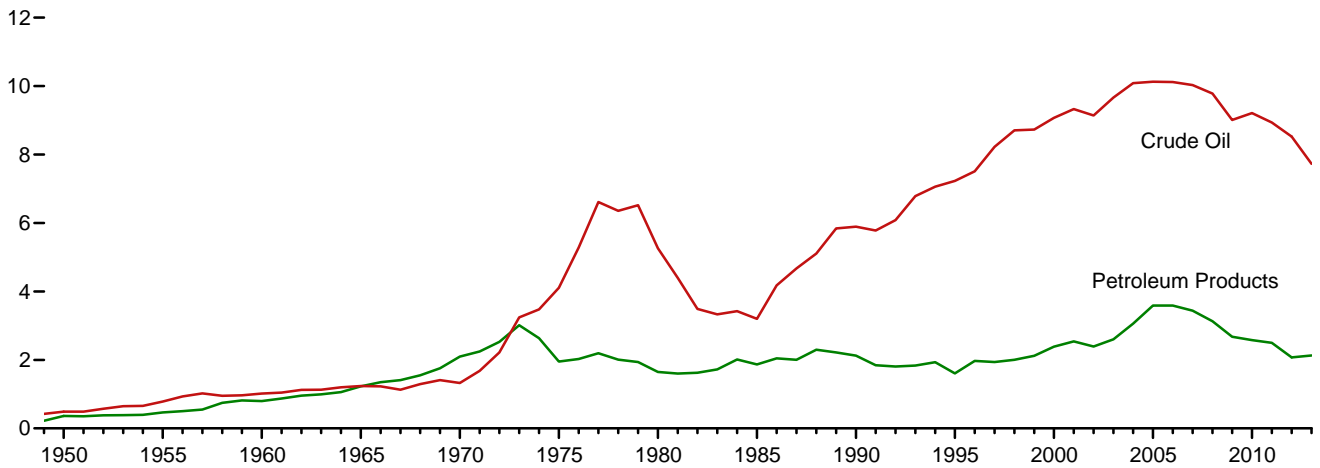
receipts from U.S. territories.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#petroleum> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.

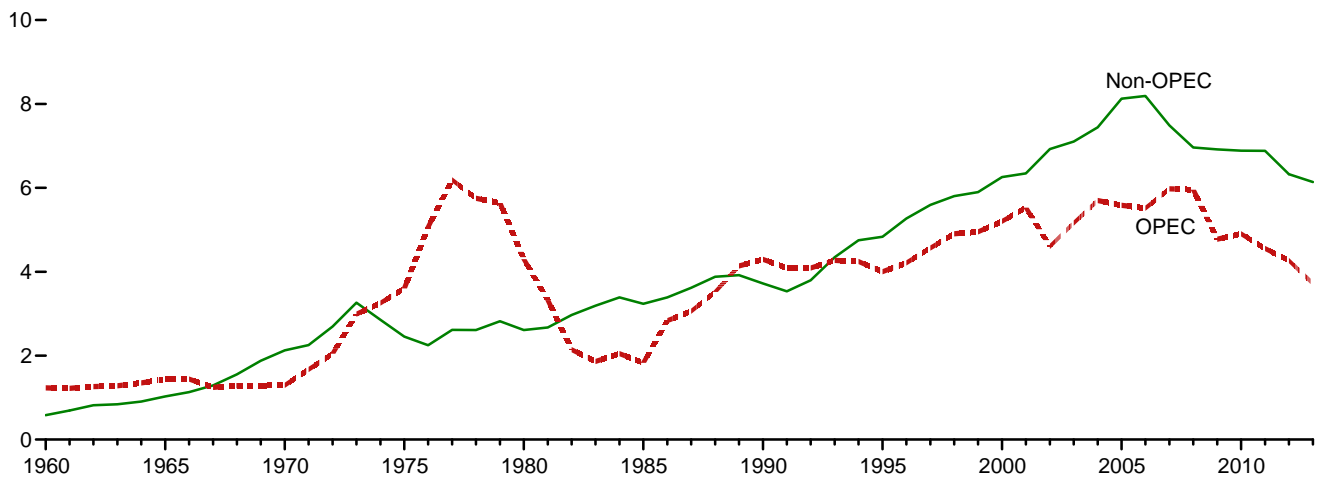
Sources: • **1949–1975:** Bureau of Mines, Mineral Industry Surveys, *Petroleum Statement, Annual*, annual reports. • **1976–1980:** U.S. Energy Information Administration (EIA), Energy Data Reports, *Petroleum Statement, Annual*, annual reports. • **1981–2013:** EIA, *Petroleum Supply Annual*, annual reports, and unpublished revisions. • **2014:** 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)

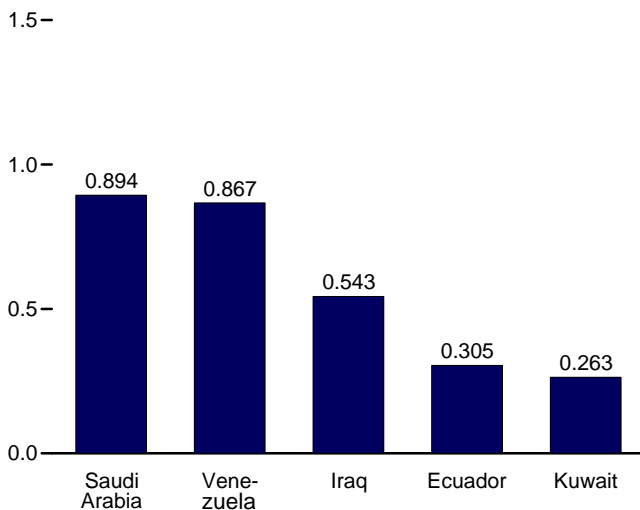
Overview, 1949–2013



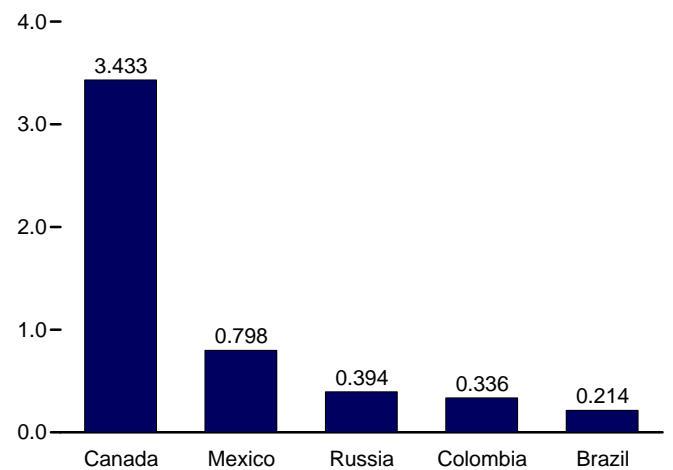
OPEC and Non-OPEC, 1960–2013



From Selected OPEC Countries, August 2014



From Selected Non-OPEC Countries, August 2014



Note: OPEC=Organization of the Petroleum Exporting Countries.
Web Page: <http://www.eia.gov/totalenergy/data/monthly/#petroleum>.
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 ^d	LPG ^b		Motor Gasoline ^f	Residual Fuel Oil	Other ^g	Total	Crude Oil ^a	Petroleum Products	Total
	SPR ^c	Total			Propane ^e	Total							
1950 Average	--	487	7	(^d)	0	0	(s)	329	27	850	95	210	305
1955 Average	--	782	12	(^d)	0	0	13	417	24	1,248	32	336	368
1960 Average	--	1,015	35	34	NA	4	27	637	62	1,815	8	193	202
1965 Average	--	1,238	36	81	NA	21	28	946	119	2,468	3	184	187
1970 Average	--	1,324	147	144	26	52	67	1,528	157	3,419	14	245	259
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	--	7,230	193	106	102	146	265	187	708	8,835	95	855	949
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	--	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 Average	19	9,783	213	103	185	253	302	349	1,913	12,915	29	1,773	1,802
2009 Average	56	9,013	225	81	147	182	223	331	1,635	11,691	44	1,980	2,024
2010 Average	--	9,213	228	98	121	153	134	366	1,600	11,793	42	2,311	2,353
2011 Average	--	8,935	179	69	110	135	105	328	1,686	11,436	47	2,939	2,986
2012 January	--	8,527	157	6	146	169	80	330	1,641	10,910	78	2,791	2,870
February	--	8,562	142	41	125	155	46	228	1,315	10,490	73	2,921	2,994
March	--	8,771	137	5	109	137	79	273	1,204	10,605	71	3,045	3,116
April	--	8,636	98	45	115	143	33	252	1,404	10,611	41	3,231	3,272
May	--	8,991	113	49	106	133	43	265	1,524	11,117	83	3,124	3,207
June	--	9,193	87	42	102	130	37	325	1,609	11,424	46	3,170	3,216
July	--	8,712	117	48	115	134	32	247	1,505	10,794	77	3,160	3,237
August	--	8,665	112	124	85	109	34	244	1,593	10,880	60	3,021	3,081
September	--	8,381	86	84	100	124	23	257	1,521	10,475	68	3,096	3,164
October	--	8,108	88	106	91	116	26	236	1,368	10,047	67	3,188	3,255
November	--	8,183	188	46	138	158	32	236	1,339	10,181	73	3,331	3,404
December	--	7,604	190	59	161	182	64	178	1,367	9,644	71	3,565	3,636
Average	--	8,527	126	55	116	141	44	256	1,450	10,598	67	3,137	3,205
2013 January	--	7,956	213	61	184	207	40	239	1,372	10,089	109	2,772	2,881
February	--	7,293	174	70	166	186	19	199	1,347	9,286	132	3,148	3,280
March	--	7,497	146	44	141	164	56	285	1,343	9,534	107	3,004	3,111
April	--	7,760	238	104	111	130	35	264	1,636	10,168	138	3,096	3,235
May	--	7,741	168	113	81	98	38	194	1,822	10,174	130	3,341	3,472
June	--	7,731	121	99	111	133	70	181	1,548	9,882	124	3,470	3,594
July	--	8,058	107	96	88	109	53	252	1,627	10,300	104	3,747	3,851
August	--	8,099	123	124	84	109	68	296	1,430	10,249	71	3,654	3,725
September	--	7,923	132	68	87	108	40	231	1,533	10,036	105	3,526	3,632
October	--	7,478	128	98	158	181	38	195	1,489	9,608	119	3,955	4,074
November	--	7,408	145	74	169	189	49	194	1,326	9,385	253	3,714	3,967
December	--	7,772	164	61	146	166	33	169	1,174	9,539	220	4,381	4,602
Average	--	7,730	155	84	127	148	45	225	1,471	9,859	134	3,487	3,621
2014 January	--	7,584	283	42	187	206	42	122	985	9,264	245	3,776	4,021
February	--	7,200	336	94	221	244	11	221	1,046	9,151	240	3,371	3,611
March	--	7,264	324	91	122	142	36	156	1,227	9,240	246	3,612	3,858
April	--	7,547	180	144	78	101	57	177	1,377	9,584	268	3,698	3,966
May	--	7,165	186	104	66	84	47	175	1,619	9,380	288	3,832	4,121
June	--	7,054	121	109	91	116	51	150	1,215	8,815	396	3,761	4,156
July	--	7,623	129	85	63	81	60	177	1,317	9,472	401	4,078	4,479
August	--	R 7,471	R 143	R 63	R 76	R 90	R 73	R 166	R 1,302	R 9,309	R 389	R 4,144	R 4,533
September	--	E 7,497	E 109	E 120	E 74	NA	E 44	E 175	NA	E 8,990	E 399	E 3,423	E 3,822
October	--	E 7,266	E 92	E 79	E 91	NA	E 60	E 224	NA	E 8,829	E 416	E 3,580	E 3,995
10-Month Average	--	E 7,369	E 189	E 93	E 106	NA	E 48	E 174	NA	E 9,205	E 329	E 3,732	E 4,061
2013 10-Month Average	--	7,758	155	88	121	142	46	234	1,516	9,938	114	3,374	3,487
2012 10-Month Average	--	8,654	114	55	109	135	43	266	1,469	10,736	67	3,075	3,141

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 Beginning in 1965, includes kerosene-type jet fuel. (Through 1964, kerosene-type jet fuel is included with kerosene in "Other.") For 1956-2004, also includes naphtha-type jet fuel. (Through 1955, naphtha-type jet fuel is included in "Motor Gasoline." Beginning in 2005, naphtha-type jet fuel is included in "Other.")
e Includes propylene.
f Finished motor gasoline. Through 1955, also includes naphtha-type jet fuel. Through 1963, also includes aviation gasoline and special naphthas. Through 1980, also includes motor gasoline blending components.
g Asphalt and road oil, aviation gasoline blending components, kerosene, lubricants, pentanes plus, petrochemical feedstocks, petroleum coke, unfinished oils, waxes, other hydrocarbons and oxygenates, and miscellaneous products. Through 1964, also includes kerosene-type jet fuel. Beginning in 1964, also

includes finished aviation gasoline and special naphthas. Beginning in 1981, also includes motor gasoline blending components. Beginning in 2005, also includes naphtha-type jet fuel.
R=Revised. E=Estimate. NA=Not available. -- =Not applicable. - =No data reported. (s)=Less than 500 barrels per day.
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.gov/totalenergy/data/monthly/#petroleum> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.
Sources: • 1949-1975: 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. • 1981-2013: EIA, *Petroleum Supply Annual*, annual reports, and unpublished revisions. • 2014: 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 ^a	Angola ^b	Ecuador ^c	Iraq	Kuwait ^d	Libya ^e	Nigeria ^f	Saudi Arabia ^d	Venezuela	Other ^g	Total OPEC
1960 Average	(a)	(b)	(c)	22	182	(e)	(f)	84	911	34	1,233
1965 Average	(a)	(b)	(c)	16	74	42	(f)	158	994	155	1,439
1970 Average	8	(b)	(c)	0	48	47	(f)	30	989	172	1,294
1975 Average	282	(b)	57	2	16	232	762	715	702	832	3,601
1980 Average	488	(b)	27	28	27	554	857	1,261	481	577	4,300
1985 Average	187	(b)	67	46	21	4	293	168	605	439	1,830
1990 Average	280	(b)	49	518	86	0	800	1,339	1,025	199	4,296
1995 Average	234	(b)	(c)	0	218	0	627	1,344	1,480	98	4,002
2000 Average	225	(b)	(c)	620	272	0	896	1,572	1,546	72	5,203
2001 Average	278	(b)	(c)	795	250	0	885	1,662	1,553	105	5,528
2002 Average	264	(b)	(c)	459	228	0	621	1,552	1,398	83	4,605
2003 Average	382	(b)	(c)	481	220	0	867	1,774	1,376	61	5,162
2004 Average	452	(b)	(c)	656	250	20	1,140	1,558	1,554	70	5,701
2005 Average	478	(b)	(c)	531	243	56	1,166	1,537	1,529	47	5,587
2006 Average	657	(b)	(c)	553	185	87	1,114	1,463	1,419	38	5,517
2007 Average	670	508	(c)	484	181	117	1,134	1,485	1,361	39	5,980
2008 Average	548	513	221	627	210	103	988	1,529	1,189	26	5,954
2009 Average	493	460	185	450	182	79	809	1,004	1,063	50	4,776
2010 Average	510	393	212	415	197	70	1,023	1,096	988	3	4,906
2011 Average	358	346	206	459	191	15	818	1,195	951	16	4,555
2012											
January	269	385	100	374	319	5	494	1,423	751	41	4,159
February	256	230	244	271	252	29	353	1,420	934	–	3,989
March	325	175	174	386	454	60	374	1,369	984	–	4,301
April	259	253	201	395	235	68	483	1,597	904	7	4,402
May	300	249	199	675	407	65	428	1,540	861	7	4,730
June	236	378	248	668	250	93	515	1,456	794	17	4,655
July	213	285	176	375	304	110	372	1,466	1,080	7	4,387
August	303	153	180	550	301	126	504	1,220	1,048	–	4,385
September	175	237	218	461	310	67	468	1,291	1,038	6	4,272
October	186	183	122	593	287	59	543	1,258	951	4	4,187
November	199	157	151	489	276	30	516	1,316	1,076	18	4,228
December	179	116	155	462	254	16	248	1,034	1,092	–	3,556
Average	242	233	180	476	305	61	441	1,365	960	9	4,271
2013											
January	195	223	240	419	389	20	479	979	913	10	3,866
February	17	198	174	529	255	20	255	1,032	614	20	3,115
March	74	98	228	426	367	74	403	1,284	781	8	3,741
April	160	167	322	455	238	76	405	1,109	866	–	3,799
May	168	328	178	321	361	125	395	1,440	739	10	4,064
June	88	271	202	228	217	119	366	1,431	899	16	3,837
July	112	228	198	299	309	150	240	1,318	933	–	3,789
August	105	376	349	397	420	67	167	1,332	678	10	3,901
September	136	226	255	287	299	35	286	1,557	837	–	3,921
October	66	207	251	226	335	13	183	1,362	759	10	3,411
November	144	125	235	182	397	–	93	1,563	796	–	3,535
December	110	136	198	332	332	(s)	99	1,520	847	39	3,613
Average	115	216	236	341	328	59	281	1,329	806	10	3,720
2014											
January	68	94	191	249	474	–	89	1,462	687	1	3,314
February	79	114	207	290	348	–	59	1,464	807	31	3,398
March	92	117	173	291	360	–	112	1,444	772	19	3,380
April	69	118	170	321	342	–	187	1,607	853	1	3,668
May	102	178	217	351	334	–	118	1,241	772	1	3,313
June	147	166	138	529	355	–	115	1,017	747	38	3,251
July	118	159	214	496	375	–	61	1,232	901	40	3,598
August	137	129	305	543	263	10	48	894	867	76	3,272
8-Month Average	102	134	202	385	357	1	99	1,293	801	26	3,399
2013 8-Month Average	116	237	237	383	321	82	339	1,243	805	9	3,772
2012 8-Month Average	270	263	190	463	316	70	441	1,436	920	10	4,378

^a Algeria joined OPEC in 1969. For 1960–1968, Algeria is included in "Total Non-OPEC" on Table 3.3d.

^b Angola joined OPEC in January 2007. For 1960–2006, Angola is included in "Total Non-OPEC" on Table 3.3d.

^c Ecuador was a member of OPEC from 1973–1992, and rejoined OPEC in November 2007. For 1960–1972 and 1993–2007, Ecuador is included in "Total Non-OPEC" on Table 3.3d.

^d Through 1970, includes half the imports from the Neutral Zone between Kuwait and Saudi Arabia. Beginning in 1971, imports from the Neutral Zone are reported as originating in either Kuwait or Saudi Arabia depending on the country reported to U.S. Customs.

^e Libya joined OPEC in 1962. For 1960 and 1961, Libya is included in "Total Non-OPEC" on Table 3.3d.

^f Nigeria joined OPEC in 1971. For 1960–1970, Nigeria is included in "Total Non-OPEC" on Table 3.3d.

^g Includes these countries in the years indicated: Gabon (1975–1994), Indonesia (1962–2008), Iran (1960 forward), Qatar (1961 forward), and United Arab Emirates (1967 forward).

– =No data reported. (s)=Less than 500 barrels per day.

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 Page: See <http://www.eia.gov/totalenergy/data/monthly/#petroleum> (Excel and CSV files) for all available annual data beginning in 1960 and monthly data beginning in 1973.

Sources: • **1960–1972:** Bureau of Mines, *Minerals Yearbook*, annual reports. • **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. • **1981–2013:** EIA, *Petroleum Supply Annual*, annual reports. • **2014:** 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
1960 Average	1	120	42	16	NA	NA	0	(s)	NA	NA	581
1965 Average	0	323	51	48	1	0	0	(s)	0	606	1,029
1970 Average	2	766	46	42	39	0	3	11	189	1,027	2,126
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
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 Average	258	2,493	200	1,302	168	102	465	236	320	1,416	6,961
2009 Average	309	2,479	276	1,210	140	108	563	245	277	1,307	6,915
2010 Average	272	2,535	365	1,284	108	89	612	256	253	1,112	6,887
2011 Average	253	2,729	433	1,206	100	113	624	159	186	1,077	6,881
2012 January	321	3,032	431	1,114	101	46	572	168	96	870	6,751
February	286	3,057	474	1,081	93	163	288	127	28	904	6,501
March	357	2,953	482	1,004	143	87	326	187	1	764	6,304
April	237	2,987	472	1,002	84	51	388	145	12	831	6,208
May	212	2,966	430	1,012	111	94	547	138	2	875	6,387
June	297	3,070	515	915	151	82	655	194	(s)	891	6,769
July	270	2,921	413	1,024	138	47	491	131	1	971	6,407
August	289	2,954	409	1,016	97	94	368	197	—	1,071	6,495
September	152	2,759	357	1,096	75	63	562	111	—	1,029	6,203
October	90	2,642	376	1,062	69	67	552	117	3	882	5,860
November	123	2,870	459	1,065	72	80	445	126	—	712	5,953
December	85	3,153	387	1,026	52	35	523	144	—	682	6,088
Average	226	2,946	433	1,035	99	75	477	149	12	874	6,327
2013 January	103	3,456	351	1,068	121	48	328	116	—	632	6,223
February	79	3,457	366	978	121	10	454	95	—	612	6,172
March	123	3,037	479	677	122	57	454	111	—	733	5,793
April	97	3,208	465	973	76	40	584	131	—	795	6,369
May	198	2,854	389	885	88	30	554	180	—	931	6,110
June	192	2,885	356	846	74	80	519	198	—	896	6,045
July	185	3,014	588	930	69	68	456	192	—	1,011	6,511
August	241	3,082	375	912	85	36	572	163	—	882	6,348
September	262	3,086	314	839	61	56	459	149	—	890	6,116
October	95	3,218	384	878	83	114	555	160	—	711	6,197
November	133	3,130	308	1,014	78	53	325	124	—	685	5,850
December	105	3,296	293	1,030	90	54	265	146	—	648	5,926
Average	151	3,142	389	919	89	54	460	147	—	786	6,138
2014 January	126	3,437	373	1,030	105	36	202	140	—	500	5,950
February	181	3,211	320	864	105	88	365	68	—	552	5,754
March	72	3,205	382	871	90	70	424	131	—	614	5,860
April	100	3,169	334	748	110	72	405	170	—	809	5,916
May	136	3,265	247	803	127	39	352	179	—	918	6,067
June	143	3,237	210	777	15	30	274	97	—	781	5,565
July	157	3,281	202	753	32	55	405	118	—	871	5,874
August	214	3,433	336	798	61	44	394	84	—	673	6,037
8-Month Average	141	3,281	300	831	80	54	353	124	—	716	5,881
2013 8-Month Average	153	3,121	422	908	94	46	490	149	—	814	6,196
2012 8-Month Average	284	2,991	453	1,021	115	83	455	161	17	898	6,477

^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. NA=Not available. —=No data reported. (s)=Less than 500 barrels per day.

Notes: • See "Organization of the Petroleum Exporting Countries (OPEC)" in Glossary. 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

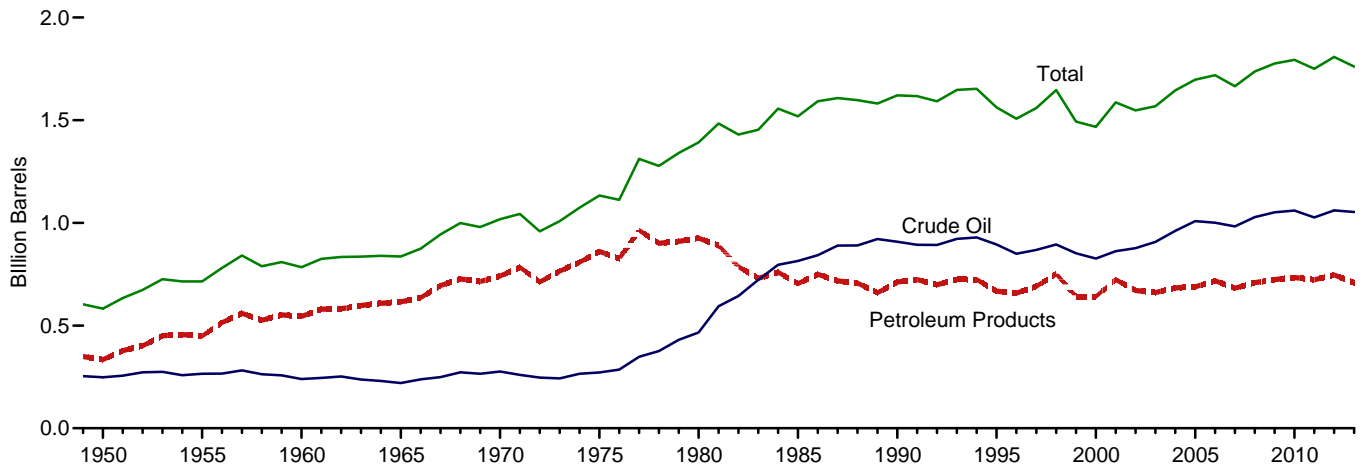
states and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#petroleum> (Excel and CSV files) for all available annual data beginning in 1960 and monthly data beginning in 1973.

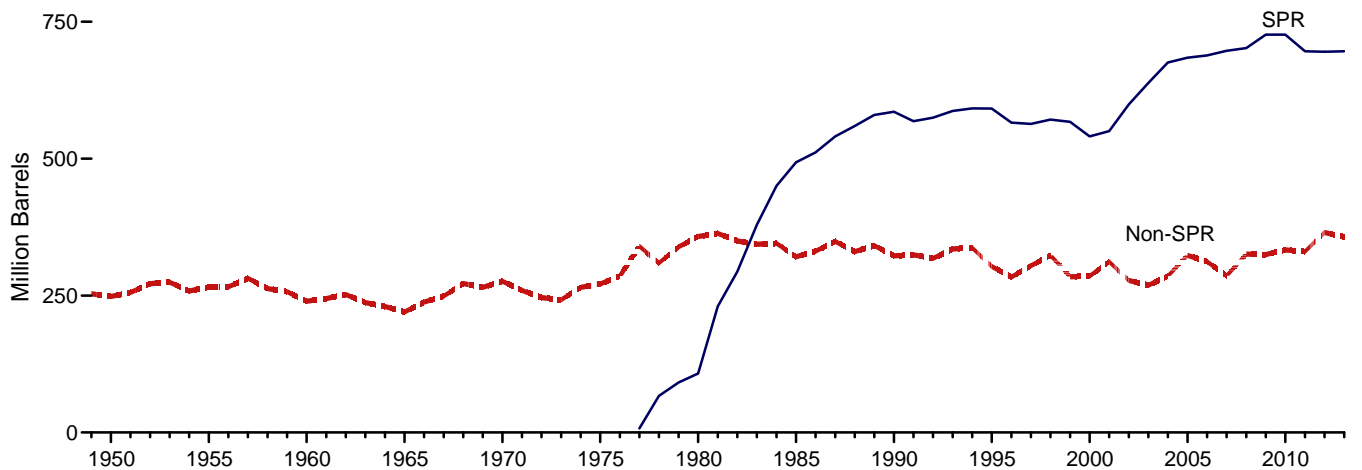
Sources: • **1960–1972:** Bureau of Mines, *Minerals Yearbook*, annual reports. • **1973–1975:** Bureau of Mines, Mineral Industry Surveys, *Petroleum Statement, Annual*, annual reports. • **1976–1980:** U.S. Energy Information Administration (EIA), Energy Data Reports, *Petroleum Statement, Annual*, annual reports. • **1981–2013:** EIA, *Petroleum Supply Annual*, annual reports. • **2014:** EIA, *Petroleum Supply Monthly*, monthly reports.

Figure 3.4 Petroleum Stocks

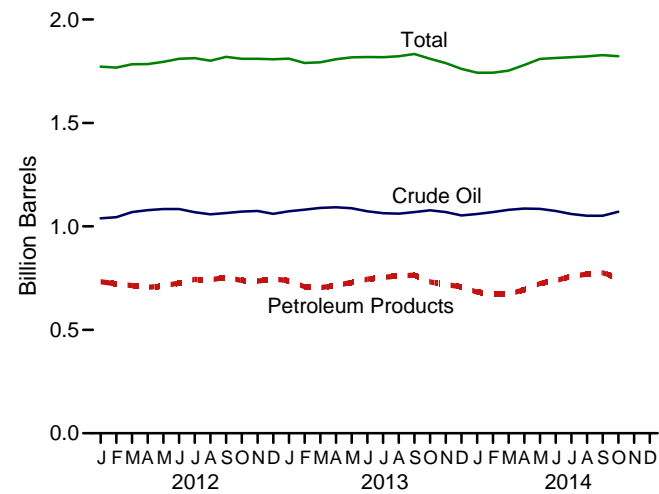
Overview, 1949–2013



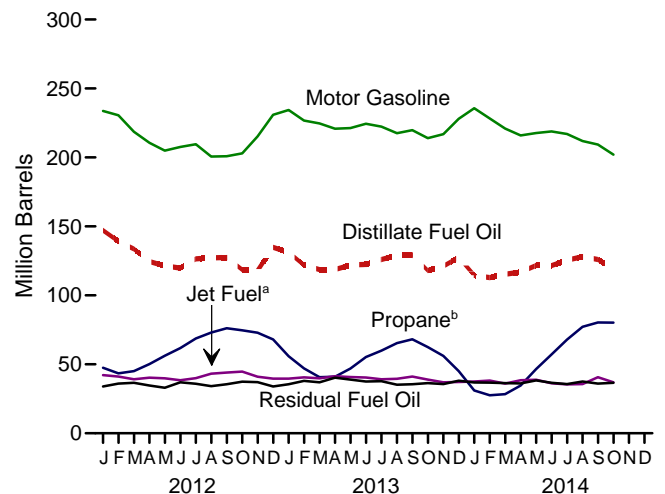
SPR and Non-SPR Crude Oil Stocks, 1949–2013



Overview, Monthly



Selected Products, Monthly



^a Includes kerosene-type jet fuel only.

^b Includes propylene.

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

period.

Web Page: <http://www.eia.gov/totalenergy/data/monthly/#petroleum>.

Source: Table 3.4.

Table 3.4 Petroleum Stocks
(Million Barrels)

	Crude Oil ^a			Distillate Fuel Oil ⁱ	Jet Fuel ^g	LPG ^b		Motor Gasoline ⁱ	Residual Fuel Oil	Other ^j	Total
	SPR ^c	Non-SPR ^{d,e}	Total ^e			Propane ^h	Total				
1950 Year	--	248	248	72	(^g)	NA	2	116	41	104	583
1955 Year	--	266	266	111	3	NA	7	165	39	123	715
1960 Year	--	240	240	138	7	NA	23	195	45	137	785
1965 Year	--	220	220	155	19	NA	30	175	56	181	836
1970 Year	--	276	276	195	28	NA	67	209	54	188	1,018
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
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 Year	702	326	1,028	146	38	55	113	214	36	162	1,737
2009 Year	727	325	1,052	166	43	50	102	223	37	153	1,776
2010 Year	727	333	1,060	164	43	49	108	219	41	158	1,794
2011 Year	696	331	1,027	149	41	55	112	223	34	164	1,750
2012 January	696	343	1,039	147	42	48	101	234	34	175	1,773
February	696	348	1,044	139	41	43	96	231	36	180	1,767
March	696	373	1,069	134	39	45	103	219	37	184	1,783
April	696	383	1,079	125	40	50	116	211	35	179	1,784
May	696	388	1,084	121	40	56	133	205	33	180	1,796
June	696	388	1,084	120	38	62	147	208	37	177	1,810
July	696	373	1,069	126	40	69	160	210	36	173	1,813
August	696	362	1,058	127	43	73	170	201	34	166	1,801
September	695	370	1,065	127	44	76	175	201	36	172	1,819
October	695	376	1,071	119	45	75	168	203	37	167	1,810
November	695	379	1,074	118	41	73	158	215	37	167	1,810
December	695	365	1,061	135	40	68	141	231	34	167	1,808
2013 January	696	377	1,073	131	40	56	121	234	36	176	1,811
February	696	385	1,081	122	40	47	108	227	38	174	1,790
March	696	393	1,089	119	40	41	103	225	37	180	1,793
April	696	396	1,092	119	41	41	111	221	40	183	1,808
May	696	392	1,088	122	41	47	127	221	39	178	1,817
June	696	377	1,073	122	40	55	143	224	38	178	1,819
July	696	368	1,064	126	39	60	154	222	38	175	1,818
August	696	366	1,062	129	39	65	168	218	35	171	1,823
September	696	373	1,069	129	41	68	172	220	36	166	1,833
October	696	382	1,078	118	39	63	159	214	36	166	1,810
November	696	374	1,070	121	37	56	139	217	36	170	1,789
December	696	357	1,053	128	37	45	114	228	38	163	1,761
2014 January	696	364	1,060	115	38	31	88	236	37	170	1,743
February	696	373	1,069	113	38	28	81	228	37	177	1,743
March	696	384	1,080	115	36	28	85	221	36	180	1,753
April	693	393	1,086	117	38	35	102	216	36	184	1,780
May	691	394	1,085	122	39	47	125	218	38	182	1,809
June	691	384	1,075	122	36	57	149	219	37	176	1,814
July	691	369	1,060	126	35	68	172	217	36	172	1,818
August	691	R 361	R 1,052	R 128	R 36	R 77	R 187	R 212	R 38	R 170	R 1,822
September	E 691	E 360	E 1,051	E 126	E 41	E 80	RF 190	E 209	E 36	RE 174	E 1,828
October	E 691	E 380	E 1,071	E 119	E 37	E 80	F 185	E 202	E 37	E 171	E 1,822

^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.

^f Excludes stocks in the Northeast Home Heating Oil Reserve. Beginning in 2009, includes renewable diesel fuel (including biodiesel) blended into distillate fuel oil.

^g Beginning in 1965, includes kerosene-type jet fuel. (Through 1964, kerosene-type jet fuel is included with kerosene in "Other.") For 1952–2004, also includes naphtha-type jet fuel. (Through 1951, naphtha-type jet fuel is included in the products from which it was blended—gasoline, kerosene, and distillate fuel oil. Beginning in 2005, naphtha-type jet fuel is included in "Other.")

^h Includes propylene.

ⁱ Includes finished motor gasoline and motor gasoline blending components; excludes oxygenates. Through 1963, also includes aviation gasoline and special naphthas.

^j Asphalt and road oil, aviation gasoline blending components, kerosene,

lubricants, pentanes plus, petrochemical feedstocks, petroleum coke, unfinished oils, waxes, miscellaneous products, oxygenates, renewable fuels, and other hydrocarbons. Through 1964, also includes kerosene-type jet fuel. Beginning in 1964, also includes finished aviation gasoline and special naphthas. Beginning in 2005, also includes naphtha-type jet fuel.

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

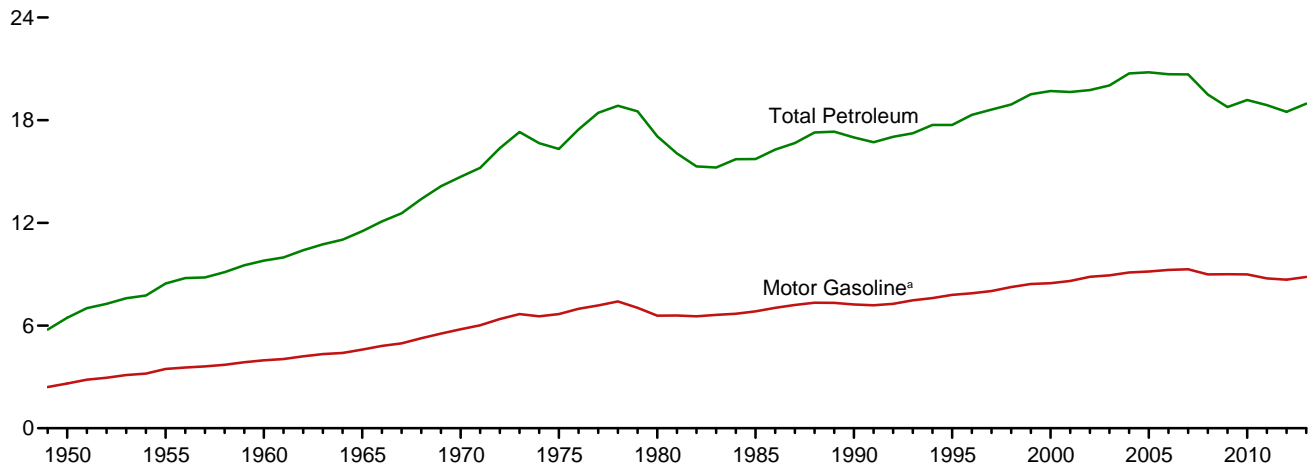
Notes: • Stocks are at end of period. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#petroleum> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.

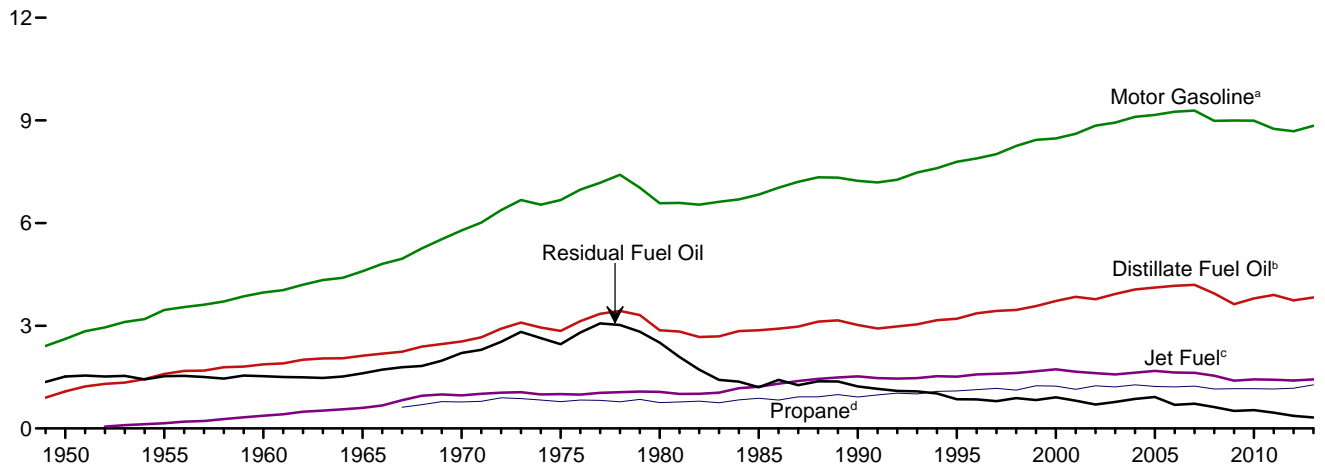
Sources: • 1949–1975: Bureau of Mines, Mineral Industry Surveys, *Petroleum Statement, Annual*, annual reports. • 1976–1980: U.S. Energy Information Administration (EIA), *Energy Data Reports, Petroleum Statement, Annual*, annual reports. • 1981–2013: EIA, *Petroleum Supply Annual*, annual reports. • 2014: 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)

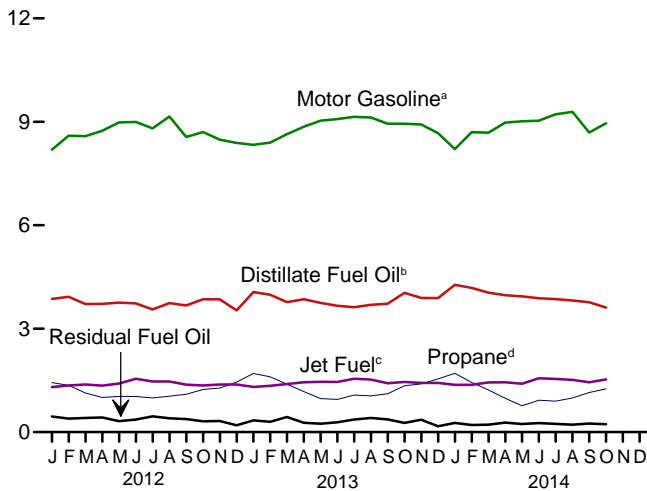
Total Petroleum and Motor Gasoline, 1949–2013



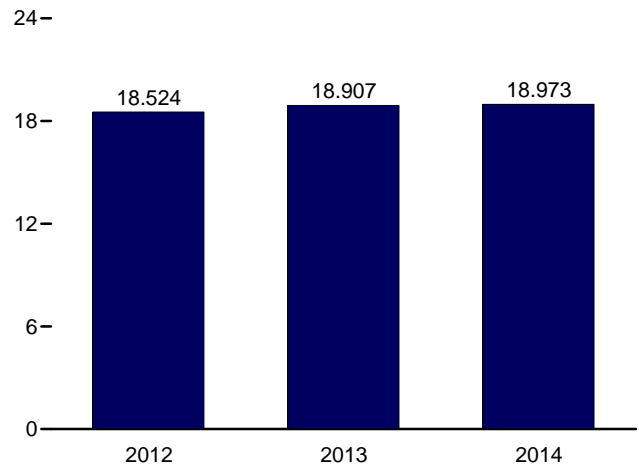
Selected Products, 1949–2013



Selected Products, Monthly



Total Petroleum, January–October

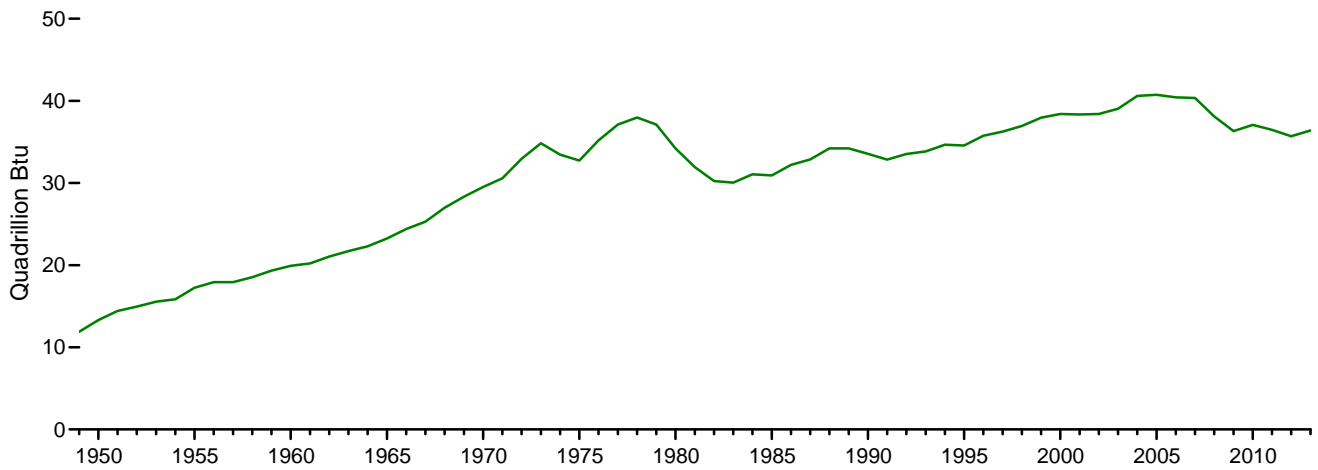


^a Beginning in 1993, includes fuel ethanol blended into motor gasoline.
^b Beginning in 2009, includes renewable diesel fuel (including biodiesel) blended into distillate fuel oil.
^c Beginning in 2005, includes kerosene-type jet fuel only.

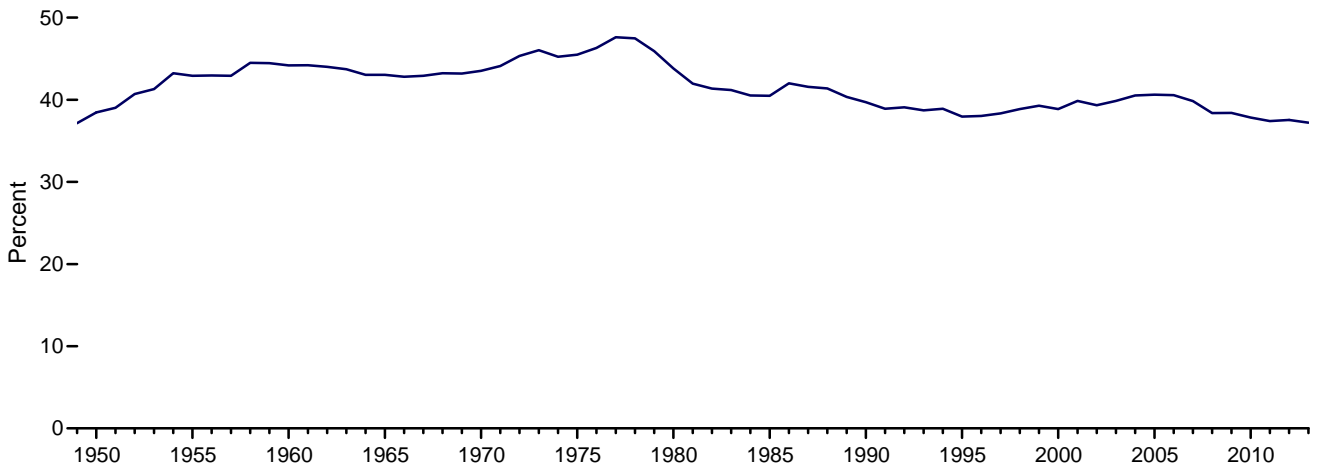
^d Includes propylene.
 Note: SPR=Strategic Petroleum Reserve.
 Web Page: <http://www.eia.gov/totalenergy/data/monthly/#petroleum>.
 Source: Table 3.5.

Figure 3.6 Heat Content of Petroleum Products Supplied by Type

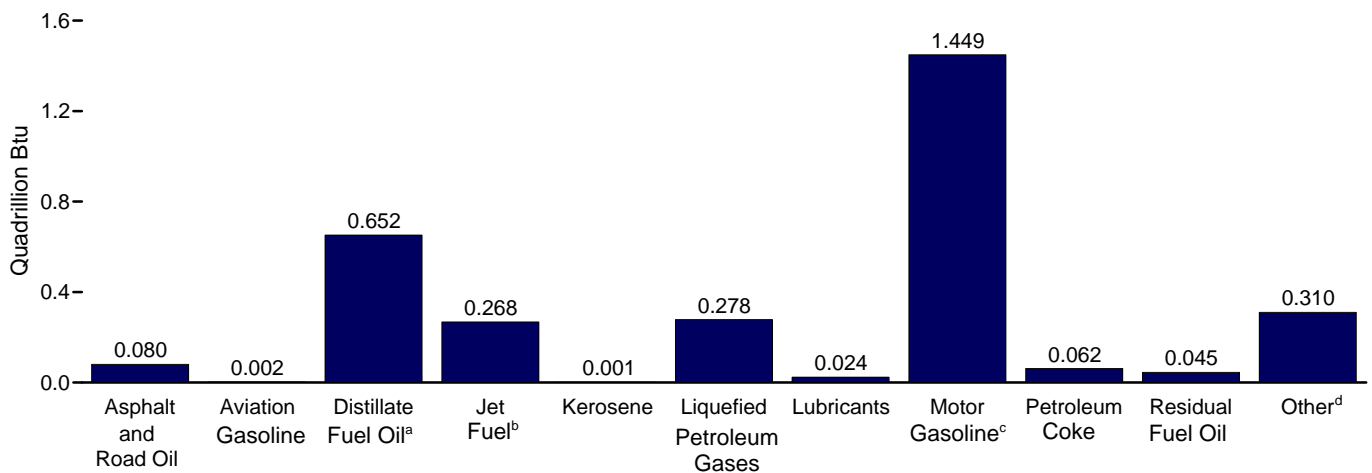
Total, 1949–2013



Petroleum Products Supplied as Share of Total Energy Consumption, 1949–2013



By Product, October 2014



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

^b Includes kerosene-type jet fuel only.

^c Includes fuel ethanol blended into motor gasoline.

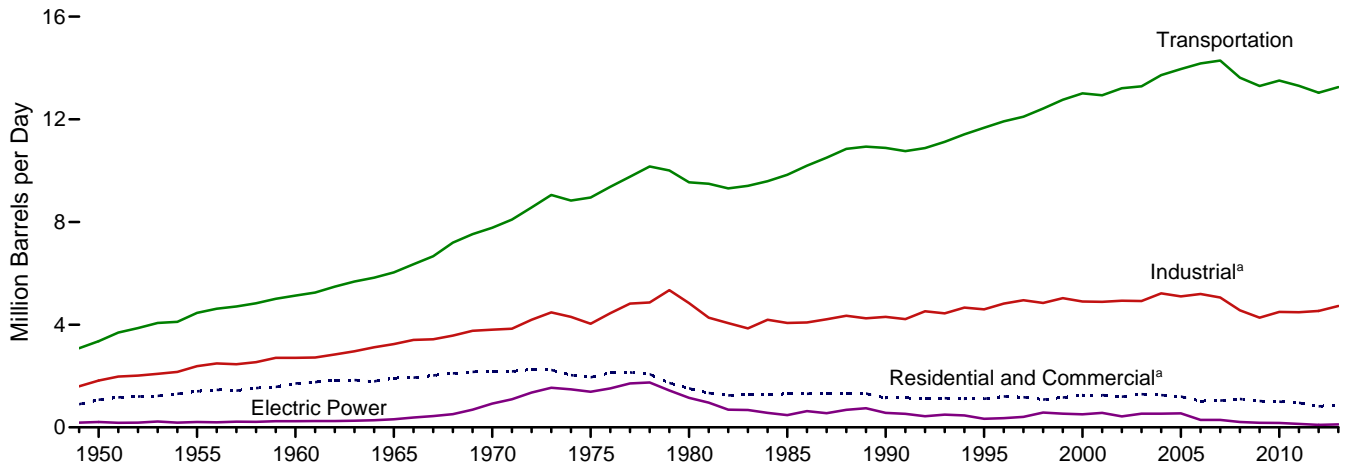
^d All petroleum products not separately displayed.

Web Page: <http://www.eia.gov/totalenergy/data/monthly/#petroleum>.

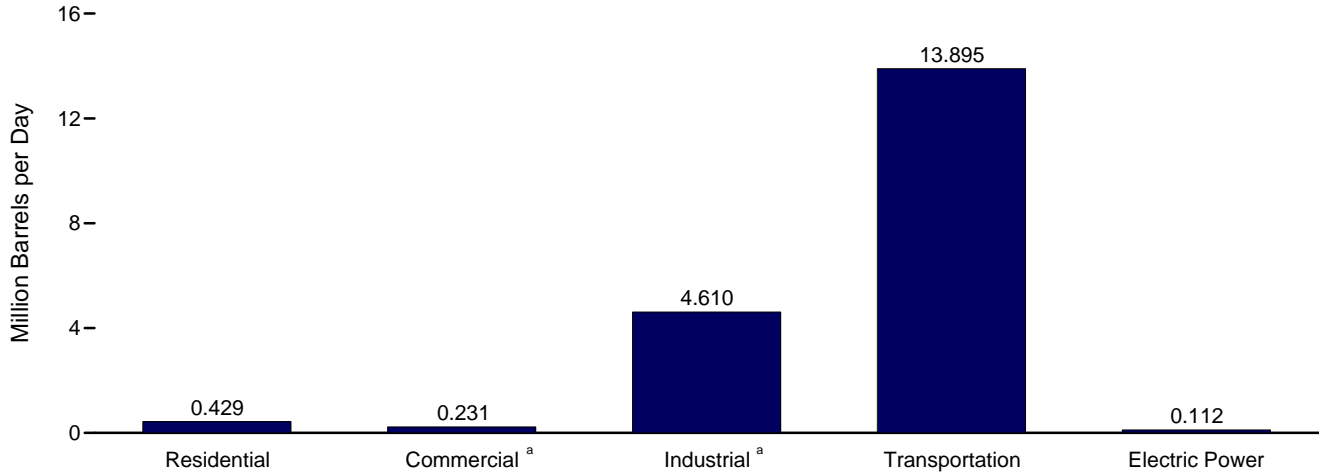
Sources: Tables 1.1 and 3.6.

Figure 3.7 Petroleum Consumption by Sector

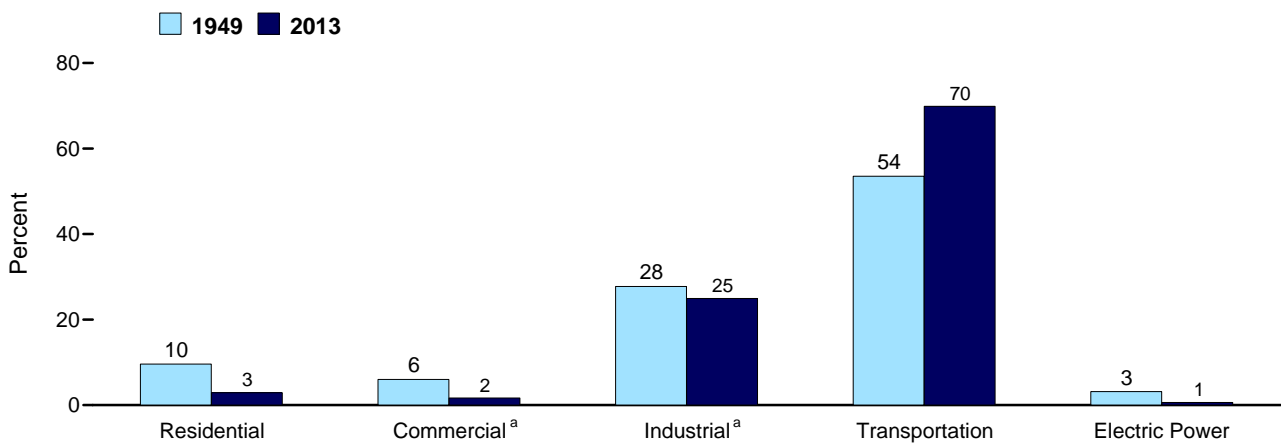
By Sector, 1949–2013



By Sector, August 2014



Sector Shares, 1949 and 2013



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

Web Page: <http://www.eia.gov/totalenergy/data/monthly/#petroleum>.
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
1950 Average	390	168	104	662	123	23	28	52	NA	185	411
1955 Average	562	179	144	885	177	24	38	69	NA	209	519
1960 Average	736	171	217	1,123	232	23	58	35	NA	243	590
1965 Average	805	161	275	1,242	251	26	74	40	NA	281	672
1970 Average	883	144	392	1,419	276	30	102	45	NA	311	764
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
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	438	34	389	861	233	9	112	32	(s)	48	434
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 Average	354	10	394	758	181	2	113	24	(s)	31	351
2009 Average	276	13	391	680	187	2	99	28	(s)	31	348
2010 Average	266	14	379	659	185	2	100	28	(s)	27	343
2011 Average	248	9	362	619	186	2	105	24	(s)	23	339
2012 January	380	4	317	701	280	1	109	22	(s)	23	434
February	319	19	310	648	235	3	106	23	(s)	19	387
March	259	5	284	548	191	1	97	23	(s)	15	328
April	190	1	267	458	140	(s)	91	24	(s)	11	266
May	188	6	265	459	138	1	91	24	0	11	266
June	195	1	259	455	143	(s)	89	24	0	12	268
July	182	(s)	262	443	134	(s)	90	24	(s)	11	258
August	228	(s)	271	500	168	(s)	93	25	(s)	14	300
September	184	3	273	460	135	(s)	94	23	(s)	11	264
October	163	2	298	463	120	(s)	102	23	(s)	10	256
November	215	2	304	521	158	(s)	104	23	(s)	13	299
December	238	2	324	564	176	(s)	111	23	(s)	14	324
Average	228	4	286	518	168	1	98	23	(s)	14	304
2013 January	434	8	350	792	320	1	120	22	(s)	22	485
February	446	2	353	800	328	(s)	121	23	(s)	22	494
March	350	11	317	677	257	2	109	23	(s)	17	409
April	271	3	290	564	200	1	99	24	(s)	14	337
May	171	1	264	437	126	(s)	91	24	0	9	250
June	125	1	260	386	92	(s)	89	24	0	6	212
July	122	1	290	412	90	(s)	99	25	(s)	6	220
August	158	1	277	435	116	(s)	95	25	(s)	8	244
September	178	3	289	470	131	(s)	99	24	(s)	9	264
October	128	1	331	460	94	(s)	114	24	(s)	6	238
November	201	(s)	342	543	148	(s)	117	24	(s)	10	299
December	240	14	359	612	177	2	123	23	(s)	12	337
Average	234	4	310	548	172	1	106	24	(s)	12	315
2014 January	272	13	370	655	200	2	127	22	(s)	14	365
February	334	4	330	668	246	1	113	23	(s)	17	400
March	270	(s)	302	572	199	(s)	104	23	(s)	13	340
April	135	1	273	410	100	(s)	94	24	(s)	7	225
May	177	1	243	420	130	(s)	83	24	(s)	9	247
June	157	(s)	260	418	116	(s)	89	24	0	8	237
July	127	8	263	398	94	1	90	25	(s)	6	216
August	133	2	294	429	98	(s)	101	25	(s)	7	231
8-Month Average	200	4	292	495	147	1	100	24	(s)	10	282
2013 8-Month Average	258	3	300	561	190	1	103	24	(s)	13	330
2012 8-Month Average	242	4	279	526	178	1	96	24	(s)	14	313

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

^b Finished motor gasoline. Through 1963, also includes special naphthas. Beginning in 1993, also includes fuel ethanol blended into motor gasoline.

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–3.8c. See Note 1, "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.gov/totalenergy/data/monthly/#petroleum> (Excel and CSV files) for all available annual data beginning in 1949 and monthly 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
1950 Average	180	328	132	100	43	131	41	617	250	1,822
1955 Average	254	466	116	212	47	173	67	686	366	2,387
1960 Average	302	476	78	333	48	198	149	689	435	2,708
1965 Average	368	541	80	470	62	179	202	689	657	3,247
1970 Average	447	577	89	699	70	150	203	708	866	3,808
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
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	551	12	1,560	72	171	375	96	1,579	4,918
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 Average	417	637	2	1,419	67	131	394	84	1,408	4,559
2009 Average	360	509	2	1,541	61	128	363	57	1,251	4,272
2010 Average	362	547	4	1,673	68	140	310	52	1,343	4,500
2011 Average	355	586	2	1,714	64	138	295	59	1,272	4,484
2012 January	201	721	1	2,041	62	122	338	38	1,253	4,777
February	220	808	5	1,994	71	128	250	33	1,238	4,747
March	234	631	1	1,825	57	128	288	35	1,160	4,358
April	327	619	(s)	1,715	64	130	317	36	1,067	4,275
May	383	598	1	1,705	63	134	351	27	1,128	4,389
June	455	513	(s)	1,665	55	134	347	28	1,219	4,417
July	464	393	(s)	1,683	55	131	304	36	1,228	4,293
August	497	454	(s)	1,746	56	136	368	33	1,221	4,510
September	445	552	1	1,757	55	127	332	31	1,010	4,310
October	374	699	1	1,917	58	129	272	27	1,331	4,808
November	282	722	1	1,954	62	126	338	27	1,309	4,821
December	201	524	(s)	2,084	47	125	327	15	1,408	4,731
Average	340	602	1	1,841	59	129	319	30	1,215	4,536
2013 January	224	756	2	2,254	65	124	350	27	1,171	4,973
February	215	625	(s)	2,269	65	125	229	24	1,214	4,766
March	236	531	3	2,038	65	129	241	36	1,114	4,392
April	290	581	1	1,866	58	132	219	22	1,189	4,358
May	308	577	(s)	1,702	66	134	331	20	1,363	4,502
June	406	513	(s)	1,675	73	135	333	24	1,311	4,470
July	453	461	(s)	1,863	63	136	306	29	1,336	4,647
August	464	464	(s)	1,784	62	136	331	34	1,192	4,466
September	461	555	1	1,861	61	133	336	30	1,521	4,959
October	377	826	(s)	2,132	60	133	256	22	1,178	4,984
November	262	734	(s)	2,199	51	133	345	30	1,426	5,179
December	180	717	4	2,308	59	129	251	13	1,377	5,037
Average	323	612	1	1,995	62	132	294	26	1,282	4,727
2014 January	177	992	3	2,384	55	122	365	18	1,143	5,260
February	205	863	1	2,126	60	129	238	16	1,301	4,940
March	218	782	(s)	1,944	71	129	162	16	1,168	4,490
April	282	810	(s)	1,757	59	134	281	23	1,225	4,571
May	350	693	(s)	1,561	68	134	316	19	1,145	4,286
June	402	617	(s)	1,675	52	134	285	22	1,189	4,377
July	463	618	2	1,690	70	137	340	19	1,212	4,551
August	458	571	(s)	1,889	68	138	322	17	1,147	4,610
8-Month Average	321	742	1	1,877	63	132	289	19	1,190	4,633
2013 8-Month Average	325	563	1	1,929	65	131	293	27	1,237	4,571
2012 8-Month Average	348	590	1	1,796	60	130	321	33	1,189	4,470

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

^b Finished motor gasoline. Through 1963, also includes special naphthas. Beginning in 1993, also includes fuel ethanol blended into motor gasoline.

^c Pentanes plus, petrochemical feedstocks, still gas (refinery gas), waxes, and miscellaneous products. Beginning in 1964, also includes special naphthas. 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.

(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–3.8c. See Note 1, "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.gov/totalenergy/data/monthly/#petroleum> (Excel and CSV files) for all available annual data beginning in 1949 and monthly 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
1950 Average	108	226	(^c)	2	64	2,433	524	3,356	15	NA	192	207
1955 Average	192	372	154	9	70	3,221	440	4,458	15	NA	191	206
1960 Average	161	418	371	13	68	3,736	367	5,135	10	NA	231	241
1965 Average	120	514	602	23	67	4,374	336	6,036	14	NA	302	316
1970 Average	55	738	967	32	66	5,589	332	7,778	66	9	853	928
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
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	2,629	1,578	13	68	8,733	249	13,286	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 Average	15	2,738	1,539	29	64	8,834	402	13,621	34	70	104	209
2009 Average	14	2,626	1,393	20	57	8,841	344	13,297	33	63	79	175
2010 Average	15	2,764	1,432	21	64	8,824	389	13,508	38	65	67	170
2011 Average	15	2,849	1,425	24	61	8,591	338	13,303	30	66	41	137
2012 January	12	2,454	1,308	29	59	8,047	357	12,267	27	65	34	126
February	11	2,538	1,351	29	67	8,447	314	12,757	23	55	27	105
March	14	2,614	1,381	26	54	8,431	333	12,853	20	29	29	77
April	14	2,748	1,350	25	61	8,587	348	13,133	23	28	28	79
May	17	2,804	1,409	25	59	8,821	251	13,385	28	34	28	91
June	13	2,852	1,546	24	52	8,838	279	13,605	29	38	45	112
July	20	2,818	1,468	24	52	8,656	359	13,397	30	41	52	123
August	13	2,869	1,470	25	53	8,993	317	13,741	24	43	38	105
September	15	2,782	1,378	25	52	8,410	305	12,966	21	42	29	92
October	14	2,848	1,353	28	55	8,548	243	13,088	22	37	31	90
November	10	2,728	1,381	28	59	8,334	255	12,795	24	40	28	92
December	9	2,564	1,381	30	45	8,241	138	12,408	27	38	28	93
Average	14	2,719	1,398	27	56	8,530	291	13,034	25	41	33	99
2013 January	11	2,519	1,311	32	62	8,185	242	12,363	32	54	50	136
February	8	2,561	1,344	33	62	8,248	214	12,470	24	52	37	113
March	12	2,610	1,393	29	62	8,489	358	12,953	21	51	28	100
April	12	2,781	1,444	27	55	8,700	207	13,225	22	49	29	99
May	15	2,848	1,459	25	62	8,875	187	13,471	26	66	28	120
June	15	2,910	1,454	24	69	8,918	225	13,614	22	70	32	124
July	16	2,914	1,546	27	59	8,985	280	13,828	34	68	48	150
August	14	2,934	1,524	26	59	8,964	334	13,854	22	70	33	125
September	11	2,839	1,417	27	58	8,789	302	13,442	22	66	30	117
October	11	2,972	1,455	31	56	8,787	211	13,524	19	59	28	106
November	14	2,787	1,429	32	48	8,766	295	13,371	24	48	27	99
December	7	2,721	1,428	33	56	8,517	106	12,868	32	57	39	128
Average	12	2,784	1,434	29	59	8,688	247	13,253	25	59	34	118
2014 January	10	2,649	1,371	34	52	8,062	100	12,278	159	67	138	363
February	7	2,692	1,373	31	57	8,546	119	12,824	46	60	55	162
March	12	2,748	1,440	28	67	8,532	130	12,956	47	64	57	168
April	11	2,907	1,446	25	56	8,821	218	13,484	19	46	28	93
May	14	2,912	1,404	23	64	8,857	183	13,457	25	58	24	106
June	11	2,967	1,560	24	49	8,875	205	13,691	22	62	27	111
July	17	3,001	1,543	24	66	9,058	182	13,891	21	55	32	108
August	14	2,992	1,516	27	64	9,124	157	13,895	22	56	34	112
8-Month Average	12	2,860	1,457	27	59	8,736	162	13,313	45	58	49	153
2013 8-Month Average	13	2,762	1,435	28	61	8,675	257	13,230	25	60	36	121
2012 8-Month Average	14	2,713	1,411	26	57	8,603	320	13,144	25	41	35	102

^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 Beginning in 1957, includes kerosene-type jet fuel. For 1952–2004, also includes naphtha-type jet fuel. (Through 1951, naphtha-type jet fuel is included in the products from which it was blended—gasoline, kerosene, and distillate fuel oil. Beginning in 2005, naphtha-type jet fuel is included in "Other" on Table 3.7b.)

^d Finished motor gasoline. Through 1963, also includes special naphthas. Beginning in 1993, also includes fuel ethanol blended into motor gasoline.

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

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

NA=Not available.

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–3.8c. See Note 1, "Petroleum Products Supplied and Petroleum Consumption," at end of section.

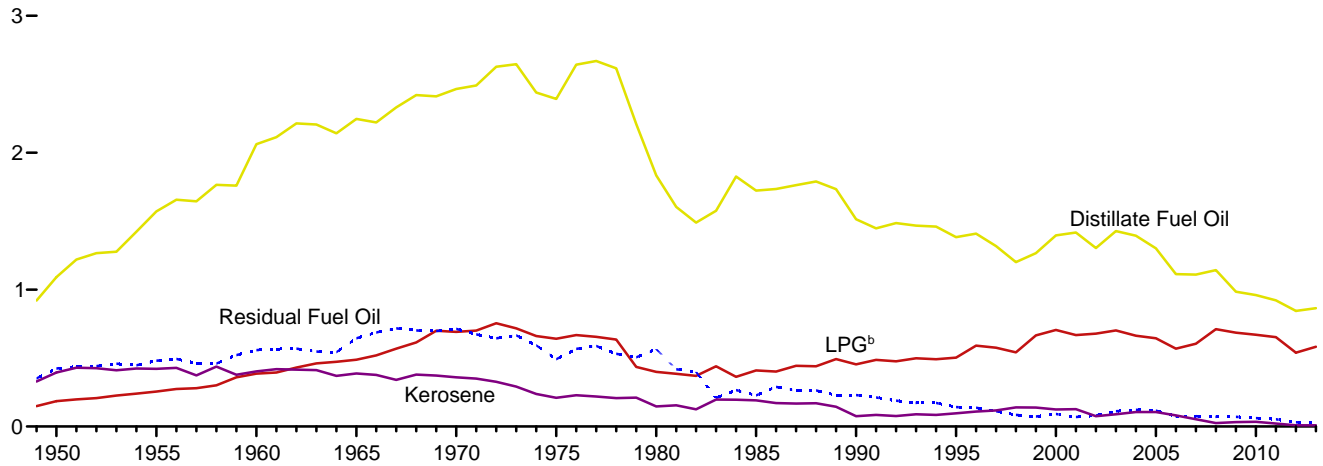
• Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#petroleum> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.

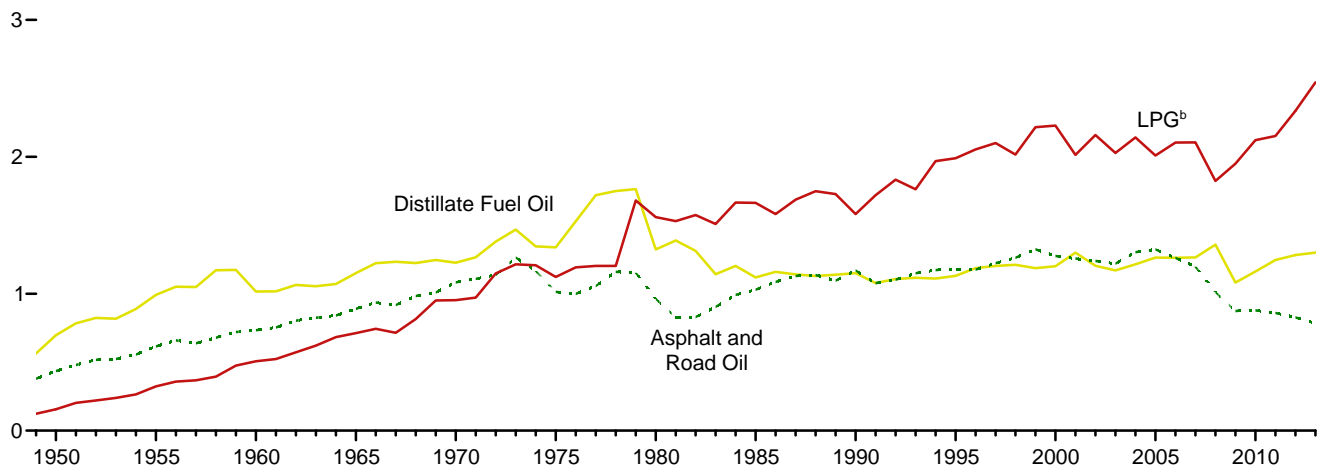
Sources: See end of section.

Figure 3.8a Heat Content of Petroleum Consumption by End-Use Sector, 1949–2013
(Quadrillion Btu)

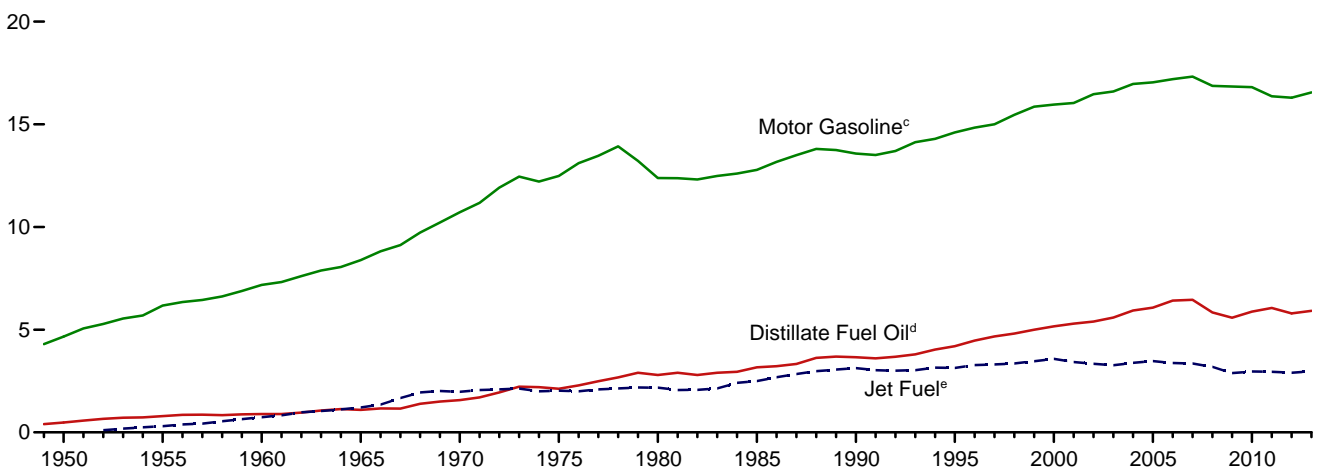
Residential and Commercial^a Sectors, Selected Products



Industrial^a Sector, Selected Products



Transportation Sector, Selected Products



^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 biodiesel)

blended into distillate fuel oil.

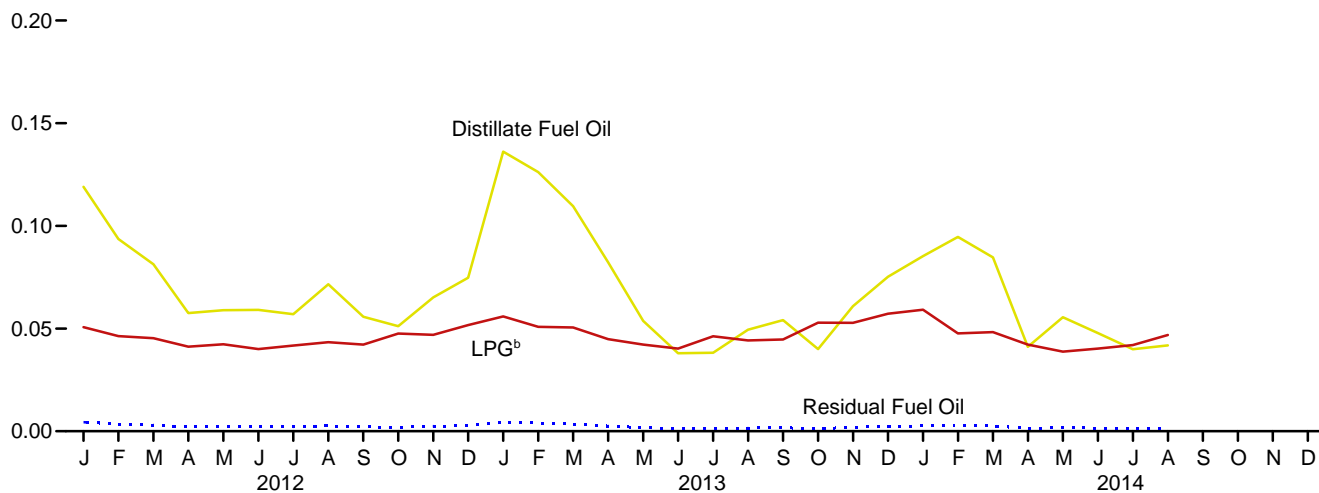
^e Beginning in 2005, includes kerosene-type jet fuel only.

Web Page: <http://www.eia.gov/totalenergy/data/monthly/#petroleum>.

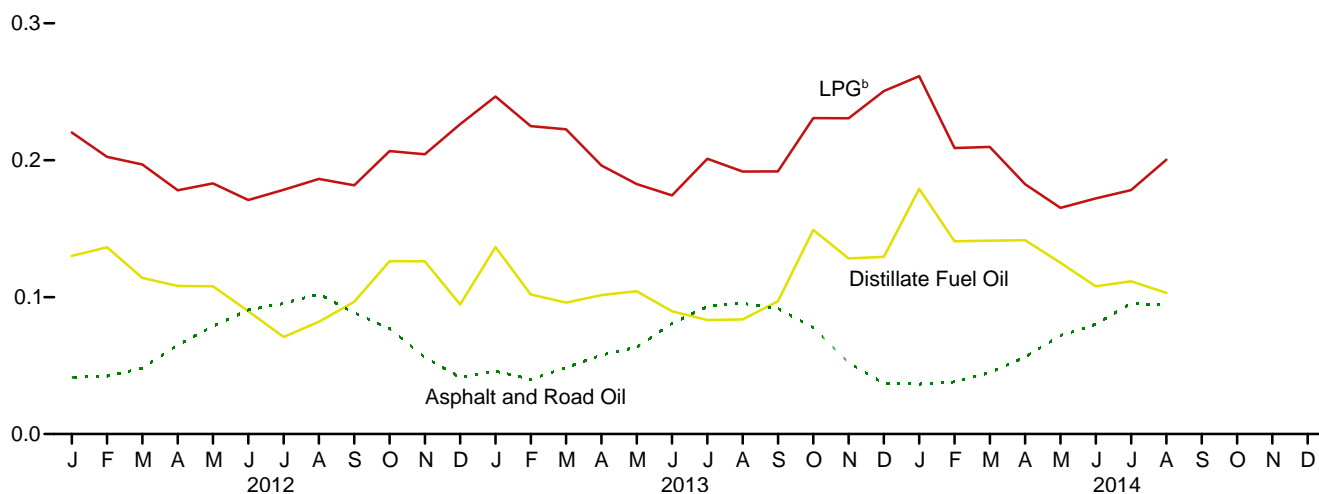
Sources: Tables 3.8a–3.8c.

Figure 3.8b Heat Content of Petroleum Consumption by End-Use Sector, Monthly
(Quadrillion Btu)

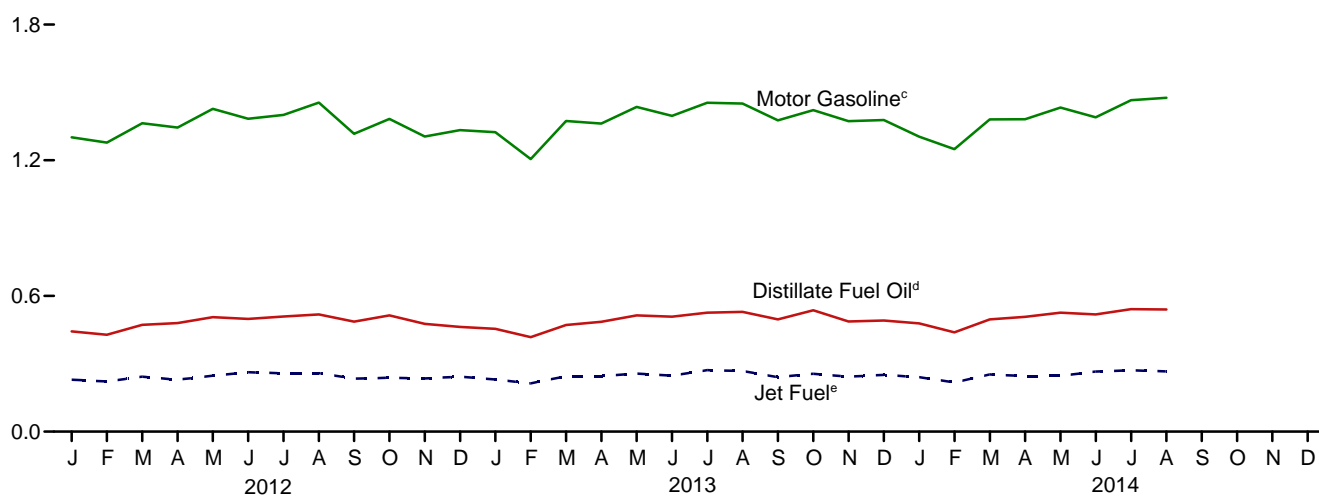
Residential and Commercial^a Sectors, Selected Products



Industrial^a Sector, Selected Products



Transportation Sector, Selected Products



^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.

^e Includes kerosene-type jet fuel only.

Web Page: <http://www.eia.gov/totalenergy/data/monthly/#petroleum>.

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
1950 Total	829	347	146	1,322	262	47	39	100	NA	424	872
1955 Total	1,194	371	202	1,767	377	51	54	133	NA	480	1,095
1960 Total	1,568	354	305	2,227	494	48	81	67	NA	559	1,248
1965 Total	1,713	334	385	2,432	534	54	103	77	NA	645	1,413
1970 Total	1,878	298	549	2,725	587	61	143	86	NA	714	1,592
1975 Total	1,807	161	512	2,479	587	49	129	89	NA	492	1,346
1980 Total	1,316	107	311	1,734	518	41	88	107	NA	565	1,318
1985 Total	1,092	159	314	1,565	631	33	95	96	NA	228	1,083
1990 Total	978	64	352	1,394	536	12	102	111	0	230	991
1995 Total	905	74	395	1,374	479	22	109	18	(s)	141	769
2000 Total	905	95	555	1,554	491	30	150	45	(s)	92	807
2001 Total	908	95	526	1,529	508	31	143	37	(s)	70	790
2002 Total	860	60	537	1,457	444	16	141	45	(s)	80	726
2003 Total	932	70	544	1,547	496	19	157	60	(s)	111	843
2004 Total	924	85	512	1,520	470	20	152	45	(s)	122	810
2005 Total	854	84	513	1,451	447	22	131	46	(s)	116	762
2006 Total	712	66	446	1,224	401	15	123	49	(s)	75	664
2007 Total	726	44	484	1,254	384	9	121	61	(s)	75	651
2008 Total	756	21	553	1,330	387	4	158	46	(s)	71	666
2009 Total	587	28	547	1,161	398	4	139	53	(s)	71	666
2010 Total	566	29	530	1,125	394	5	140	53	(s)	62	655
2011 Total	527	19	506	1,052	395	3	146	45	(s)	54	644
2012 January	69	1	38	107	50	(s)	13	4	(s)	4	72
February	54	3	34	92	40	(s)	12	4	(s)	3	59
March	47	1	34	81	34	(s)	12	4	(s)	3	53
April	33	(s)	31	64	24	(s)	11	4	(s)	2	41
May	34	1	32	66	25	(s)	11	4	0	2	42
June	34	(s)	30	64	25	(s)	10	4	0	2	41
July	33	(s)	31	64	24	(s)	11	4	(s)	2	41
August	41	(s)	32	74	30	(s)	11	4	(s)	3	48
September	32	1	31	64	24	(s)	11	4	(s)	2	40
October	29	(s)	35	65	22	(s)	12	4	(s)	2	40
November	38	(s)	35	73	28	(s)	12	4	(s)	2	46
December	43	(s)	39	82	32	(s)	13	4	(s)	3	51
Total	487	8	402	896	358	1	138	45	(s)	31	574
2013 January	78	1	42	121	58	(s)	14	4	(s)	4	80
February	73	(s)	38	111	54	(s)	13	3	(s)	4	74
March	63	2	38	103	46	(s)	13	4	(s)	3	67
April	47	1	33	81	35	(s)	11	4	(s)	3	53
May	31	(s)	31	63	23	(s)	11	4	0	2	39
June	22	(s)	30	52	16	(s)	10	4	0	1	31
July	22	(s)	34	57	16	(s)	12	4	(s)	1	33
August	28	(s)	33	62	21	(s)	11	4	(s)	2	38
September	31	(s)	33	65	23	(s)	11	4	(s)	2	40
October	23	(s)	39	63	17	(s)	13	4	(s)	1	36
November	35	(s)	39	74	26	(s)	13	4	(s)	2	45
December	43	2	43	88	32	(s)	15	4	(s)	2	53
Total	497	8	434	939	366	1	149	45	(s)	27	589
2014 January	49	2	44	95	36	(s)	15	4	(s)	3	58
February	55	1	35	91	40	(s)	12	3	(s)	3	59
March	49	(s)	36	85	36	(s)	12	4	(s)	3	55
April	24	(s)	31	55	17	(s)	11	4	(s)	1	33
May	32	(s)	29	61	24	(s)	10	4	(s)	2	39
June	28	(s)	30	57	20	(s)	10	4	0	1	36
July	23	1	31	56	17	(s)	11	4	(s)	1	33
August	24	(s)	35	59	18	(s)	12	4	(s)	1	35
8-Month Total	283	5	272	559	208	1	93	30	(s)	15	348
2013 8-Month Total	365	5	279	649	269	1	96	30	(s)	20	415
2012 8-Month Total	344	6	261	612	254	1	90	30	(s)	22	397

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

^b Finished motor gasoline. Through 1963, also includes special naphthas. Beginning in 1993, also includes fuel ethanol blended into motor gasoline.

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–3.8c. See Note 1, "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.gov/totalenergy/data/monthly/#petroleum> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.

Sources: See end of section.

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

	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
1950 Total	435	698	274	156	94	251	90	1,416	546	3,960
1955 Total	615	991	241	323	103	332	147	1,573	798	5,123
1960 Total	734	1,016	161	507	107	381	328	1,584	947	5,766
1965 Total	890	1,150	165	712	137	342	444	1,582	1,390	6,813
1970 Total	1,082	1,226	185	953	155	288	446	1,624	1,817	7,776
1975 Total	1,014	1,339	119	1,123	149	223	540	1,509	2,109	8,127
1980 Total	962	1,324	181	1,559	182	158	516	1,349	3,278	9,509
1985 Total	1,029	1,119	44	1,664	166	218	575	748	2,152	7,714
1990 Total	1,170	1,150	12	1,582	186	185	714	411	2,839	8,251
1995 Total	1,178	1,131	15	1,990	178	200	721	337	2,837	8,588
2000 Total	1,276	1,200	16	2,228	190	150	796	241	2,979	9,076
2001 Total	1,257	1,300	23	2,014	174	295	858	203	3,056	9,181
2002 Total	1,240	1,204	14	2,160	172	309	842	190	3,040	9,171
2003 Total	1,220	1,171	24	2,028	159	324	825	220	3,264	9,235
2004 Total	1,304	1,214	28	2,141	161	372	934	249	3,428	9,831
2005 Total	1,323	1,264	39	2,009	160	356	889	281	3,318	9,640
2006 Total	1,261	1,263	30	2,104	156	376	934	239	3,416	9,780
2007 Total	1,197	1,265	13	2,106	161	306	906	193	3,313	9,461
2008 Total	1,012	1,359	4	1,823	150	250	868	194	2,941	8,600
2009 Total	873	1,081	4	1,950	135	244	799	130	2,611	7,827
2010 Total	878	1,163	7	2,121	149	267	682	120	2,800	8,188
2011 Total	859	1,246	4	2,152	142	262	648	135	2,676	8,125
2012 January	41	130	(s)	220	12	20	63	7	221	715
February	42	136	1	203	13	19	44	6	208	671
March	48	114	(s)	197	11	21	54	7	208	659
April	65	108	(s)	178	12	20	57	7	184	631
May	79	108	(s)	183	12	22	66	5	200	674
June	91	90	(s)	171	10	21	63	5	212	662
July	95	71	(s)	178	10	21	57	7	219	659
August	102	82	(s)	186	11	22	69	6	217	695
September	89	97	(s)	182	10	20	60	6	176	638
October	77	126	(s)	207	11	21	51	5	236	734
November	56	126	(s)	204	11	20	61	5	226	710
December	41	95	(s)	226	9	20	61	3	252	707
Total	827	1,283	2	2,335	130	247	704	70	2,558	8,156
2013 January	46	137	(s)	247	12	20	65	5	208	740
February	40	102	(s)	225	11	18	39	4	196	635
March	48	96	(s)	223	12	21	45	7	197	650
April	58	102	(s)	196	11	21	40	4	204	635
May	63	104	(s)	183	12	22	62	4	241	691
June	81	90	(s)	174	13	21	60	4	223	667
July	93	83	(s)	201	12	22	57	6	241	715
August	95	84	(s)	192	12	22	62	7	212	685
September	92	97	(s)	192	11	21	61	6	258	737
October	78	149	(s)	231	11	22	48	4	211	753
November	52	128	(s)	231	9	21	62	6	243	752
December	37	129	1	251	11	21	47	3	244	743
Total	783	1,301	2	2,544	138	251	647	59	2,677	8,402
2014 January	36	179	1	261	10	20	68	3	206	785
February	38	141	(s)	209	10	19	40	3	210	670
March	45	141	(s)	210	13	21	30	3	210	673
April	56	142	(s)	183	11	21	51	4	214	681
May	72	125	(s)	165	13	22	59	4	207	666
June	80	108	(s)	172	9	21	51	4	204	650
July	95	112	(s)	178	13	22	64	4	215	703
August	94	103	(s)	200	13	22	60	3	205	701
8-Month Total	517	1,050	1	1,578	93	168	424	29	1,670	5,530
2013 8-Month Total	525	797	1	1,640	95	167	429	41	1,721	5,417
2012 8-Month Total	564	839	2	1,516	89	166	471	51	1,669	5,367

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

^b Finished motor gasoline. Through 1963, also includes special naphthas. Beginning in 1993, also includes fuel ethanol blended into motor gasoline.

^c Pentanes plus, petrochemical feedstocks, still gas (refinery gas), waxes, and miscellaneous products. Beginning in 1964, also includes special naphthas. 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.

(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–3.8c. See Note 1, "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.gov/totalenergy/data/monthly/#petroleum> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.

Sources: See end of section.

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
1950 Total	199	480	(^c)	3	141	4,664	1,201	6,690	32	NA	440	472
1955 Total	354	791	301	13	155	6,175	1,009	8,799	32	NA	439	471
1960 Total	298	892	739	19	152	7,183	844	10,125	22	NA	530	553
1965 Total	222	1,093	1,215	32	149	8,386	770	11,866	29	NA	693	722
1970 Total	100	1,569	1,973	44	147	10,716	761	15,310	141	19	1,958	2,117
1975 Total	71	2,121	2,029	43	155	12,485	711	17,615	226	2	2,937	3,166
1980 Total	64	2,795	2,179	18	172	12,383	1,398	19,009	169	5	2,459	2,634
1985 Total	50	3,170	2,497	30	156	12,784	786	19,472	85	7	998	1,090
1990 Total	45	3,661	3,129	23	176	13,575	1,016	21,626	97	30	1,163	1,289
1995 Total	40	4,195	3,132	18	168	14,607	911	23,070	108	81	566	755
2000 Total	36	5,165	3,580	12	179	15,960	888	25,820	175	99	871	1,144
2001 Total	35	5,292	3,426	14	164	16,041	586	25,557	171	103	1,003	1,277
2002 Total	34	5,392	3,340	14	162	16,465	677	26,085	127	175	659	961
2003 Total	30	5,590	3,265	18	150	16,597	571	26,222	161	175	869	1,205
2004 Total	31	5,932	3,383	19	152	16,962	740	27,219	111	222	879	1,212
2005 Total	35	6,076	3,475	28	151	17,043	837	27,645	115	243	876	1,235
2006 Total	33	6,414	3,379	27	147	17,197	906	28,105	74	214	361	648
2007 Total	32	6,457	3,358	22	152	17,321	994	28,335	89	171	397	657
2008 Total	28	5,837	3,193	40	141	16,872	926	27,038	73	154	240	468
2009 Total	27	5,584	2,883	28	127	16,838	791	26,277	70	139	181	390
2010 Total	27	5,876	2,963	29	141	16,807	892	26,736	80	144	154	378
2011 Total	27	6,057	2,950	34	134	16,363	776	26,341	64	146	93	303
2012												
January	2	443	230	3	11	1,302	70	2,061	5	12	7	24
February	2	429	222	3	12	1,278	57	2,003	4	10	5	18
March	2	472	243	3	10	1,364	65	2,159	4	5	6	15
April	2	480	230	3	11	1,344	66	2,136	4	5	5	14
May	3	506	248	3	11	1,427	49	2,247	5	6	6	17
June	2	498	263	3	10	1,384	53	2,212	5	7	9	20
July	3	509	258	3	10	1,400	70	2,253	5	8	10	23
August	2	518	258	3	10	1,455	62	2,308	4	8	7	20
September	2	486	234	3	9	1,317	57	2,109	4	8	6	17
October	2	514	238	3	10	1,383	47	2,198	4	7	6	17
November	2	477	235	3	11	1,305	48	2,080	4	7	5	17
December	1	463	243	4	8	1,333	27	2,079	5	7	6	18
Total	25	5,796	2,901	37	123	16,293	671	25,847	53	90	77	219
2013												
January	2	455	230	4	12	1,324	47	2,074	6	10	10	26
February	1	418	213	4	11	1,206	38	1,889	4	9	6	19
March	2	471	245	3	12	1,374	70	2,177	4	9	6	19
April	2	486	246	3	10	1,362	39	2,148	4	9	6	18
May	2	514	256	3	12	1,436	36	2,260	5	12	5	23
June	2	508	247	3	12	1,397	42	2,212	4	13	6	22
July	3	526	272	3	11	1,454	55	2,323	6	13	9	28
August	2	530	268	3	11	1,451	65	2,330	4	13	6	24
September	2	496	241	3	11	1,376	57	2,186	4	12	6	21
October	2	537	256	4	11	1,422	41	2,272	3	11	5	20
November	2	487	243	4	9	1,373	56	2,173	4	9	5	18
December	1	491	251	4	10	1,378	21	2,157	6	11	8	24
Total	22	5,920	2,969	40	130	16,553	567	26,201	53	130	78	262
2014												
January	2	478	241	4	10	1,305	19	2,059	29	12	27	68
February	1	439	218	3	10	1,249	21	1,941	7	10	10	27
March	2	496	253	3	13	1,381	25	2,173	8	12	11	32
April	2	508	246	3	10	1,381	41	2,191	3	8	5	17
May	2	526	247	3	12	1,433	36	2,258	4	11	5	20
June	2	518	265	3	9	1,390	39	2,226	4	11	5	20
July	3	542	271	3	12	1,466	35	2,332	4	10	6	20
August	2	540	266	3	12	1,476	31	2,331	4	10	7	21
8-Month Total	15	4,048	2,008	25	88	11,081	247	17,512	64	86	75	225
2013 8-Month Total	16	3,909	1,978	26	90	11,003	392	17,414	36	88	55	178
2012 8-Month Total	18	3,856	1,952	24	84	10,955	491	17,380	36	61	54	151

^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 Beginning in 1957, includes kerosene-type jet fuel. For 1952–2004, also includes naphtha-type jet fuel. (Through 1951, naphtha-type jet fuel is included in the products from which it was blended—gasoline, kerosene, and distillate fuel oil. Beginning in 2005, naphtha-type jet fuel is included in "Other" on Table 3.8b.)

^d Finished motor gasoline. Through 1963, also includes special naphthas. Beginning in 1993, also includes fuel ethanol blended into motor gasoline.

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

^f Fuel oil nos. 5 and 6. Through 1979, data are for steam plant use of

petroleum. Through 2000, electric utility data also include a small amount of fuel oil no. 4.

NA=Not available.

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–3.8c. See Note 1, "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.gov/totalenergy/data/monthly/#petroleum> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.

Sources: See end of section.

Petroleum

Note 1. 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–3.8c.

Note 2. 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.

Note 3. Historical Petroleum Data. Detailed information on petroleum data through 1993 can be found in Notes 1–6 on pages 60 and 61 in the July 2013 *Monthly Energy Review (MER)* at

<http://www.eia.gov/totalenergy/data/monthly/archive/00351307.pdf>.

The notes discuss:

Note 1, “Petroleum Survey Respondents”: In 1993, EIA added numerous companies that produce, blend, store, or import oxygenates to the monthly surveys.

Note 2, “Motor Gasoline”: In 1981, EIA expanded its universe to include nonrefinery blenders and separated blending components from finished motor gasoline as a reporting category. In 1993, EIA made adjustments to finished motor gasoline product supplied data to more accurately account for fuel ethanol and motor gasoline blending components blended into finished motor gasoline.

Note 3, “Distillate and Residual Fuel Oils”: In 1981, EIA eliminated the requirement to report crude oil in pipelines or burned on leases as either distillate or residual fuel oil.

Note 4, “Petroleum New Stock Basis”: In 1975, 1979, 1981, and 1983, EIA added numerous respondents to bulk terminal and pipeline surveys; in 1984, EIA made changes in the reporting of natural gas liquids; and in 1993, EIA changed how it collected bulk terminal and pipeline stocks of oxygenates. These changes affected stocks reported and stock change calculations.

Note 5, “Stocks of Alaskan Crude Oil”: In 1981, EIA began to include data for stocks of Alaskan crude oil in transit.

Note 6, “Petroleum Data Discrepancies”: In 1976, 1978, and 1979, there are some small discrepancies between data in the MER and the *Petroleum Supply Annual*.

Table 3.1 Sources

1949–1975: 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.

1981–2001: EIA, *Petroleum Supply Annual (PSA)*, annual reports.

2002 forward: EIA, PSA, annual reports, and unpublished revisions; *Petroleum Supply Monthly*, monthly reports; revisions to crude oil production, total field production, and adjustments (based on crude oil production data from: state government agencies; U.S. Department of the Interior, Bureau of Safety and Environmental Enforcement, and predecessor agencies; and Form EIA-182, “Domestic Crude Oil First Purchase Report”); and, for the current two months, *Weekly Petroleum Status Report* data system and *Monthly Energy Review* data system calculations.

Table 3.6 Sources

Asphalt and Road Oil, Aviation Gasoline, Distillate Fuel Oil, Kerosene, Propane, Lubricants, Petroleum Coke, and Residual Fuel Oil

Product supplied data in thousand barrels per day for these petroleum products are from Table 3.5, and are converted to trillion Btu by multiplying by the appropriate heat content factors in Table A1.

Jet Fuel

Product supplied data in thousand barrels per day for kerosene-type jet fuel and, through 2004, naphtha-type jet fuel are from the U.S. Energy Information Administration’s (EIA) *Petroleum Supply Annual (PSA)*, *Petroleum Supply Monthly (PSM)*, and earlier publications (see sources for Table 3.5). These data are converted to trillion Btu by multiplying by the appropriate heat content factors in Table A1. Total jet fuel product supplied is the sum of the data in trillion Btu for kerosene-type and naphtha-type jet fuel.

Liquefied Petroleum Gases (LPG) Total

Prior to the current two months, product supplied data in thousand barrels per day for the component products of LPG (ethane/ethylene, propane/propylene, normal butane/butylene, and isobutane/isobutylene) are from the PSA, PSM, and earlier publications (see sources for Table 3.5). These data are converted to trillion Btu by multiplying by the appropriate heat content factors in Table A1. Total LPG product supplied is the sum of the data in trillion Btu for the LPG component products.

For the current two months, product supplied data in thousand barrels per day for total LPG are from Table 3.5, and are converted to trillion Btu by multiplying by the LPG heat content factors in Table A3.

Motor Gasoline

Product supplied data in thousand barrels per day for motor gasoline are from Table 3.5, and are converted to trillion Btu by multiplying by the motor gasoline heat content factors in Table A3.

Other Petroleum Products

Prior to the current two months, product supplied data in thousand barrels per day for “other” petroleum products are from the PSA, PSM, and earlier publications (see sources for Table 3.5). “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; and beginning in 2005, also includes naphtha-type jet fuel. These data are converted to trillion Btu by multiplying by the appropriate heat content factors in MER Table A1. Total “Other” petroleum product supplied is the sum of the data in trillion Btu for the individual products.

For the current two months, total “Other” petroleum products supplied is calculated by first estimating total petroleum products supplied (product supplied data in thousand barrels per day for total petroleum from Table 3.5 are converted to trillion Btu by multiplying by the total petroleum consumption heat content factor in Table A3), and then subtracting data in trillion Btu (from Table 3.6) for asphalt and road oil, aviation gasoline, distillate fuel oil, jet fuel, kerosene, total LPG, lubricants, motor gasoline, petroleum coke, and residual fuel oil.

Total Petroleum

Total petroleum products supplied is the sum of the data in trillion Btu for the products (except “Propane”) shown in Table 3.6.

Tables 3.7a–3.7c Sources

Petroleum consumption data for 1949–1972 are from the following sources:

1949–1959: Bureau of Mines, Mineral Industry Surveys, *Petroleum Statement, Annual*, annual reports, and U.S. Energy Information Administration (EIA) estimates.

1960–1972: EIA, State Energy Data System.

Petroleum consumption data beginning in 1973 are derived from data for “petroleum products supplied” from the following 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.

1981–2013: EIA, *Petroleum Statement Annual*, annual reports, and unpublished revisions.

2014: EIA, *Petroleum Supply Monthly*, monthly reports.

Beginning in 1973, 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 to 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:

Beginning in 1979, the residential sector sales total is directly from the Sales reports. Through 1978, 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.

Beginning in 1979, the commercial sector sales total is directly from the Sales reports. Through 1978, 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.

Beginning in 1979, the industrial sector sales total is the sum of the sales for industrial, farm, oil company, off-highway diesel, and all other uses. Through 1978, 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." Beginning in 1994, 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 assigned to the transportation sector. Beginning in 2005, kerosene-type jet fuel is assigned to 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 to 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).

Beginning in 1979, the residential sector sales total is directly from the Sales reports. Through 1978, each year's sales category called "heating" is allocated to the residential, commercial, and industrial sectors in proportion to the 1979 shares.

Beginning in 1979, the commercial sector sales total is directly from the Sales reports. Through 1978, each year's sales category called "heating" is allocated to the residential, commercial, and industrial sectors in proportion to the 1979 shares.

Beginning in 1979, the industrial sector sales total is the sum of the sales for industrial, farm, and all other uses. Through 1978, each year's sales category called "heating" is allocated to the residential, commercial and industrial sectors in proportion to the 1979 shares, and the 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. Beginning in 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. Through 2002, 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 80 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 LPG consumption 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 to 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:

Beginning in 1979, commercial sales data are directly from the Sales reports. Through 1978, each year's sales subtotal of the heating plus industrial category is allocated to the commercial and industrial sectors in proportion to the 1979 shares.

Beginning in 1979, industrial sales data are the sum of sales for industrial, oil company, and all other uses. Through 1978, each year's sales subtotal of the heating plus industrial category is allocated to the commercial and industrial sectors in proportion to the 1979 shares, and the 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.

Table 3.8a Sources

Distillate Fuel Oil, Kerosene, Petroleum Coke, and Residual Fuel Oil

Residential and/or commercial sector consumption data in thousand barrels per day for these petroleum products are from Table 3.7a, and are converted to trillion Btu by multiplying by the appropriate heat content factors in Table A1.

Liquefied Petroleum Gases (LPG)

Residential and commercial sector consumption data in thousand barrels per day for LPG are from Table 3.7a, and are converted to trillion Btu by multiplying by the propane heat content factor in Table A1.

Motor Gasoline

Commercial sector consumption data in thousand barrels per day for motor gasoline are from Table 3.7a, and are converted to trillion Btu by multiplying by the motor gasoline heat content factors in Table A3.

Total Petroleum

Residential sector total petroleum consumption is the sum of the data in trillion Btu for the petroleum products shown under "Residential Sector" in Table 3.8a. Commercial sector total petroleum consumption is the sum of the data in trillion Btu for the petroleum products shown under "Commercial Sector" in Table 3.8a.

Table 3.8b Sources

Asphalt and Road Oil, Distillate Fuel Oil, Kerosene, Lubricants, Petroleum Coke, and Residual Fuel Oil

Industrial sector consumption data in thousand barrels per day for these petroleum products are from Table 3.7b, and are converted to trillion Btu by multiplying by the appropriate heat content factors in Table A1.

Liquefied Petroleum Gases (LPG)

Industrial sector consumption data for LPG are calculated by subtracting LPG consumption data in trillion Btu for the residential (Table 3.8a), commercial (Table 3.8a), and transportation (Table 3.8c) sectors from total LPG consumption (Table 3.6).

Motor Gasoline

Industrial sector consumption data in thousand barrels per day for motor gasoline are from Table 3.7b, and are converted to trillion Btu by multiplying by the motor gasoline heat content factors in Table A3.

Other Petroleum Products

Industrial sector “Other” petroleum data are equal to the “Other” petroleum data in Table 3.6.

Total Petroleum

Industrial sector total petroleum consumption is the sum of the data in trillion Btu for the petroleum products shown in Table 3.8b.

Table 3.8c Sources**Aviation Gasoline, Distillate Fuel Oil, Lubricants, Petroleum Coke, and Residual Fuel Oil**

Transportation and/or electric power sector consumption data in thousand barrels per day for these petroleum products are from Table 3.7c, and are converted to trillion Btu by multiplying by the appropriate heat content factors in Table A1.

Jet Fuel

Transportation sector consumption data in thousand barrels

per day for kerosene-type jet fuel and, through 2004, naphtha-type jet fuel (see sources for Table 3.7c) are converted to trillion Btu by multiplying by the appropriate heat content factors in Table A1. Total transportation sector jet fuel consumption is the sum of the data in trillion Btu for kerosene-type and naphtha-type jet fuel.

Liquefied Petroleum Gases (LPG)

Transportation sector consumption data in thousand barrels per day for LPG are from Table 3.7c, and are converted to trillion Btu by multiplying by the propane heat content factor in Table A1.

Motor Gasoline

Transportation sector consumption data in thousand barrels per day for motor gasoline are from Table 3.7c, and are converted to trillion Btu by multiplying by the motor gasoline heat content factors in Table A3.

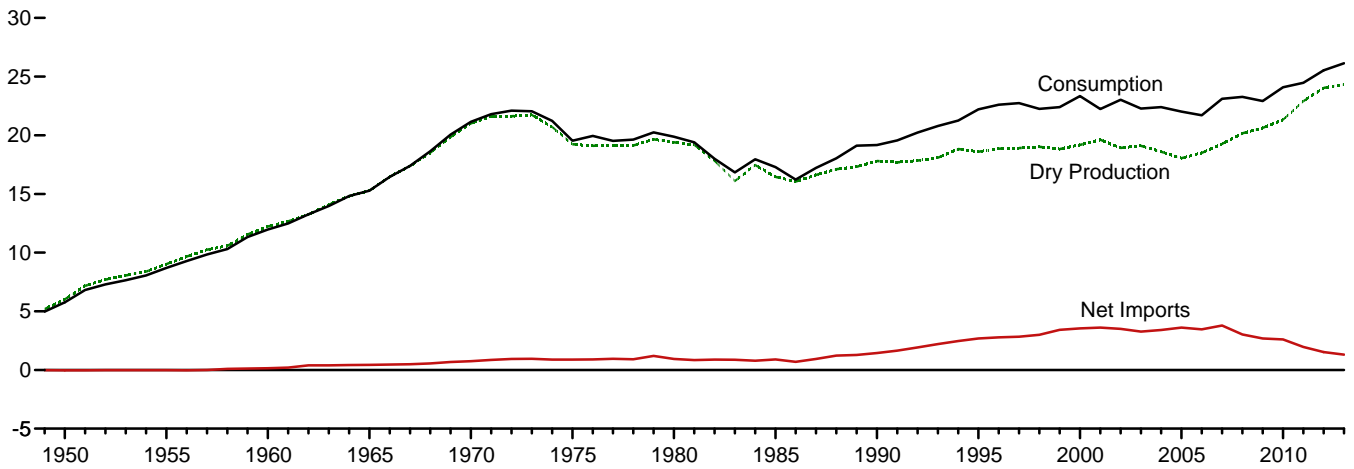
Total Petroleum

Transportation sector total petroleum consumption is the sum of the data in trillion Btu for the petroleum products shown under “Transportation Sector” in Table 3.8c. Electric power sector total petroleum consumption is the sum of the data in trillion Btu for the petroleum products shown under “Electric Power Sector” in Table 3.8c.

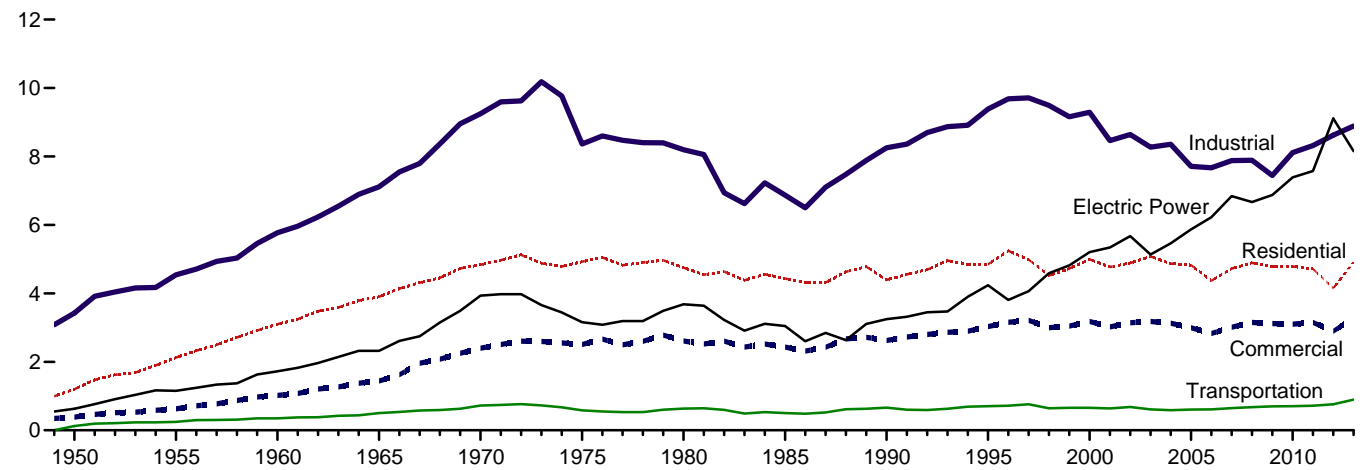
4. Natural Gas

Figure 4.1 Natural Gas
(Trillion Cubic Feet)

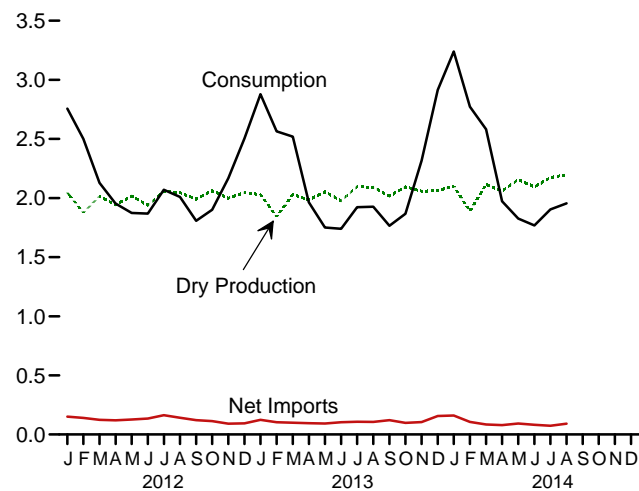
Overview, 1949–2013



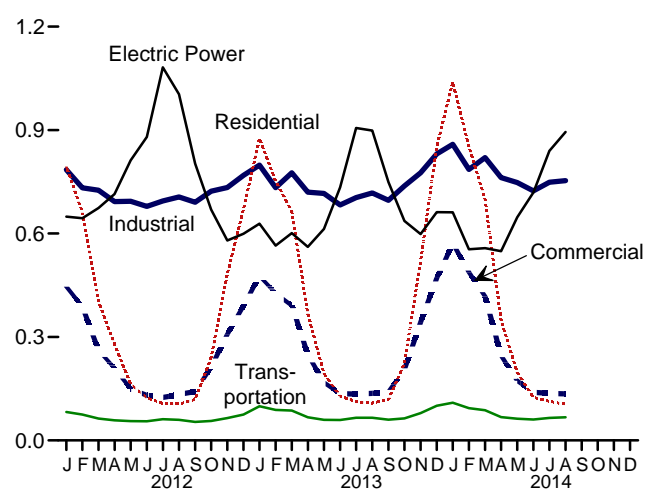
Consumption by Sector, 1949–2013



Overview, Monthly



Consumption by Sector, Monthly



Web Page: <http://www.eia.gov/totalenergy/data/monthly/#naturalgas>.
Sources: Tables 4.1 and 4.3.

Table 4.1 Natural Gas Overview
(Billion Cubic Feet)

	Gross Withdrawals ^a	Marketed Production (Wet) ^b	NGPL Production ^c	Dry Gas Production ^d	Supplemental Gaseous Fuels ^e	Trade			Net Storage Withdrawals ^f	Balancing Item ^g	Consumption ^h
						Imports	Exports	Net Imports			
1950 Total	8,480	6,282	260	6,022	NA	0	26	-26	-54	-175	5,767
1955 Total	11,720	9,405	377	9,029	NA	11	31	-20	-68	-247	8,694
1960 Total	15,088	12,771	543	12,228	NA	156	11	144	-132	-274	11,967
1965 Total	17,963	16,040	753	15,286	NA	456	26	430	-118	-319	15,280
1970 Total	23,786	21,921	906	21,014	NA	821	70	751	-398	-228	21,139
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
2000 Total	24,174	20,198	1,016	19,182	90	3,782	244	3,538	829	-306	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	467	65	23,027
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	461	22,403
2005 Total	23,457	18,927	876	18,051	64	4,341	729	3,612	52	236	22,014
2006 Total	23,535	19,410	906	18,504	66	4,186	724	3,462	-436	103	21,699
2007 Total	24,664	20,196	930	19,266	63	4,608	822	3,785	192	-203	23,104
2008 Total	25,636	21,112	953	20,159	61	3,984	963	3,021	34	2	23,277
2009 Total	26,057	21,648	1,024	20,624	65	3,751	1,072	2,679	-355	-103	22,910
2010 Total	26,816	22,382	1,066	21,316	65	3,741	1,137	2,604	-13	115	24,087
2011 Total	28,479	24,036	1,134	22,902	60	3,469	1,506	1,963	-354	-94	24,477
2012 January	2,571	R 2,153	106	R 2,046	5	281	130	151	553	R 1	R 2,756
February	2,360	R 1,974	98	R 1,877	5	270	130	140	467	R 12	R 2,501
March	2,524	R 2,119	105	R 2,014	5	265	141	124	-38	R 22	R 2,128
April	2,417	R 2,045	101	R 1,943	5	243	123	120	-141	R 25	1,953
May	2,491	R 2,121	105	R 2,016	5	259	133	126	-288	R 15	1,874
June	2,377	R 2,040	101	R 1,939	5	260	125	135	-236	R 26	R 1,868
July	2,465	R 2,162	107	R 2,055	5	281	118	163	-137	R -16	R 2,070
August	2,374	R 2,152	106	R 2,045	5	281	139	142	-169	R -14	R 2,009
September	2,410	R 2,094	104	R 1,991	5	258	137	121	-295	R -15	R 1,807
October	2,557	R 2,169	107	R 2,062	5	253	140	113	-246	R -34	1,901
November	2,471	R 2,102	104	R 1,998	5	234	142	92	129	R -56	2,168
December	2,524	R 2,153	106	R 2,046	5	252	159	94	392	R -33	R 2,504
Total	29,542	R 25,283	1,250	R 24,033	61	3,138	1,619	1,519	-9	R -66	R 25,538
2013 January	R 2,552	R 2,142	R 113	R 2,029	R 5	278	154	124	R 732	R -11	R 2,878
February	R 2,308	R 1,944	R 103	R 1,842	R 4	237	133	104	R 613	2	R 2,565
March	R 2,543	R 2,145	R 113	R 2,031	R 5	248	149	100	R 387	R -3	R 2,519
April	R 2,477	R 2,094	R 111	R 1,984	R 4	221	126	95	R -141	R 23	R 1,964
May	R 2,530	2,166	R 114	R 2,052	5	234	142	92	R -426	R 29	R 1,751
June	R 2,418	R 2,087	R 110	R 1,977	R 4	237	134	103	R -379	R 35	R 1,740
July	R 2,559	R 2,212	R 117	R 2,096	R 5	236	129	108	R -281	R -5	R 1,922
August	R 2,540	R 2,208	117	R 2,092	5	236	130	106	R -278	R 2	R 1,926
September	R 2,453	R 2,129	R 112	R 2,016	5	244	122	121	R -361	R -15	R 1,766
October	R 2,557	R 2,211	R 117	R 2,095	R 5	220	122	98	R -261	-69	R 1,867
November	R 2,512	R 2,173	R 115	R 2,058	5	219	114	105	R 216	R -67	R 2,316
December	R 2,556	R 2,179	R 115	R 2,064	5	273	117	156	R 725	R -34	2,915
Total	R 30,005	R 25,691	R 1,357	R 24,334	R 55	2,883	1,572	1,311	R 546	R -115	R 26,131
2014 January	RE 2,644	RE 2,218	118	RE 2,100	5	295	135	161	971	R 3	R 3,239
February	RE 2,374	RE 1,997	108	RE 1,889	6	245	139	107	728	R 44	R 2,773
March	RE 2,661	RE 2,241	125	RE 2,115	4	234	150	85	354	R 24	R 2,581
April	RE 2,581	RE 2,185	126	RE 2,059	5	201	122	79	-217	R 47	R 1,973
May	RE 2,671	RE 2,284	129	RE 2,155	5	R 207	114	R 93	-478	R 52	R 1,827
June	RE 2,601	RE 2,225	130	RE 2,095	5	202	120	82	-462	R 50	R 1,769
July	RE 2,634	RE 2,308	136	RE 2,172	5	201	127	74	-400	R 52	R 1,903
August	E 2,657	E 2,335	137	E 2,198	3	207	115	91	-373	36	1,956
8-Month Total	E 20,823	E 17,792	1,008	E 16,784	37	1,792	1,022	770	123	308	18,021
2013 8-Month Total	19,926	16,999	898	16,101	36	1,927	1,097	831	227	71	17,267
2012 8-Month Total	19,580	16,766	829	15,937	41	2,140	1,041	1,100	11	71	17,158

^a Gases withdrawn from natural gas, crude oil, coalbed, and shale gas wells. Includes natural gas, natural gas plant liquids, and nonhydrocarbon gases; but 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 Natural gas plant liquids (NGPL) production, gaseous equivalent. This data series was previously called "Extraction Loss." See Note 2, "Natural Gas Plant Liquids Production," at end of section.

^d Marketed production (wet) minus NGPL production.

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

^f Net withdrawals from underground storage. For 1980–2013, 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. Beginning in 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 Through 1979, 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: • See Note 8, "Natural Gas Data Adjustments, 1993–2000," at end of section. • Through 1964, all volumes are shown on a pressure base of 14.65 psia (pounds per square inch absolute) at 60° Fahrenheit; beginning in 1965, the pressure base is 14.73 psia at 60° Fahrenheit. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia (except Alaska, for which underground storage is excluded from "Net Storage Withdrawals" through 2012).

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#naturalgas> (Excel and CSV files) for all available annual data beginning in 1949 and monthly 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:** 1949–2011—U.S. Energy Information Administration (EIA), *Natural Gas Annual*, annual reports. 2012 forward—EIA, *Natural Gas Monthly*, October 2014, 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	Qatar ^a	Trinidad and Tobago ^a	Other ^{a,c}	Total	Canada ^b	Japan ^a	Mexico ^b	Other ^{a,d}	Total
1950 Total	0	0	0	0	0	0	0	0	0	3	0	23	0	26
1955 Total	0	11	0	(s)	0	0	0	0	11	11	0	20	0	31
1960 Total	0	109	0	47	0	0	0	0	156	6	0	6	0	11
1965 Total	0	405	0	52	0	0	0	0	456	18	0	8	0	26
1970 Total	1	779	0	(s)	0	0	0	0	821	11	44	15	0	70
1975 Total	5	948	0	0	0	0	0	0	953	10	53	9	0	73
1980 Total	86	797	0	102	0	0	0	0	985	(s)	45	4	0	49
1985 Total	24	926	0	0	0	0	0	0	950	(s)	53	2	0	55
1990 Total	84	1,448	0	0	0	0	0	0	1,532	17	53	16	0	86
1995 Total	18	2,816	0	7	0	0	0	0	2,841	28	65	61	0	154
2000 Total	47	3,544	0	12	13	46	99	21	3,782	73	66	106	0	244
2001 Total	65	3,729	0	10	38	23	98	14	3,977	167	66	141	0	373
2002 Total	27	3,785	0	2	8	35	151	8	4,015	189	63	263	0	516
2003 Total	53	3,437	0	0	50	14	378	11	3,944	271	66	343	0	680
2004 Total	120	3,607	0	0	12	12	462	46	4,259	395	62	397	0	854
2005 Total	97	3,700	73	9	8	3	439	11	4,341	358	65	305	0	729
2006 Total	17	3,590	120	13	57	0	389	0	4,186	341	61	322	0	724
2007 Total	77	3,783	115	54	95	18	448	18	4,608	482	47	292	2	822
2008 Total	0	3,589	55	43	12	3	267	15	3,984	559	39	365	0	963
2009 Total	0	3,271	160	28	13	13	236	29	3,751	701	31	338	3	1,072
2010 Total	0	3,280	73	30	42	46	190	81	3,741	739	33	333	32	1,137
2011 Total	0	3,117	35	3	2	91	129	92	3,469	937	18	499	52	1,506
2012 January	0	265	0	(s)	0	4	9	3	281	84	3	40	3	130
February	0	250	3	(s)	0	0	11	6	270	87	2	42	0	130
March	0	246	0	(s)	0	4	13	3	265	93	0	46	3	141
April	0	235	0	(s)	0	4	1	3	243	78	0	45	0	123
May	0	243	0	(s)	0	6	11	0	259	78	3	52	0	133
June	0	251	0	(s)	0	0	8	0	260	64	2	58	0	125
July	0	266	0	(s)	0	3	12	0	281	62	0	57	0	118
August	0	262	0	(s)	0	3	16	0	281	77	2	60	0	139
September	0	246	0	(s)	0	3	8	0	258	80	0	58	0	137
October	0	243	0	(s)	0	6	5	0	253	75	2	61	3	140
November	0	220	0	(s)	0	3	8	3	234	93	0	49	0	142
December	0	235	0	(s)	0	0	8	9	252	101	0	52	6	159
Total	0	2,963	3	(s)	0	34	112	26	3,138	971	14	620	14	1,619
2013 January	0	265	0	(s)	0	0	11	3	278	99	0	56	0	154
February	0	225	0	(s)	0	4	8	0	237	84	0	49	0	133
March	0	240	0	(s)	0	4	5	0	248	92	0	56	0	149
April	0	215	0	(s)	0	0	5	0	221	71	0	55	0	126
May	0	229	0	(s)	0	0	6	0	234	82	0	60	0	142
June	0	229	0	(s)	0	0	8	0	237	76	0	58	0	134
July	0	228	0	(s)	0	0	8	0	236	66	0	62	0	129
August	0	227	0	(s)	0	0	6	3	236	68	0	62	0	130
September	0	227	0	(s)	3	0	9	6	244	70	0	53	0	122
October	0	215	0	(s)	0	0	3	3	220	70	0	53	0	122
November	0	216	0	(s)	0	0	3	0	219	60	0	54	0	114
December	0	270	0	(s)	0	0	0	3	273	73	0	44	0	117
Total	0	2,786	0	1	3	7	70	17	2,883	911	0	661	0	1,572
2014 January	0	287	0	(s)	0	0	6	2	295	82	0	53	0	135
February	0	241	0	(s)	0	0	4	0	245	85	0	51	3	139
March	0	231	0	(s)	0	0	3	0	234	92	0	58	0	150
April	0	198	0	(s)	0	0	3	0	201	65	0	57	0	122
May	0	204	0	(s)	0	0	0	3	207	50	2	62	0	114
June	0	192	0	(s)	0	0	7	3	202	55	0	65	0	120
July	0	195	0	(s)	0	0	6	0	201	55	3	69	0	127
August	0	205	0	(s)	0	0	2	0	207	47	3	66	0	115
8-Month Total	0	1,752	0	1	0	0	31	8	1,792	530	8	481	3	1,022
2013 8-Month Total	0	1,858	0	(s)	0	7	56	5	1,927	639	0	458	0	1,097
2012 8-Month Total	0	2,019	3	(s)	0	22	83	14	2,140	622	13	400	6	1,041

^a As liquefied natural gas.

^b By pipeline, except for small amounts of: liquefied natural gas (LNG) imported from Canada in 1973, 1977, 1981, and 2013; LNG exported to Canada in 2007 and 2012 forward; compressed natural gas (CNG) exported to Canada in 2013 and 2014; and LNG exported to Mexico beginning in 1998. See Note 9, "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 2008–2013; Oman in 2000–2005; Peru in 2010 and 2011; United Arab Emirates in 1996–2000; Yemen in 2010 forward; and Other (unassigned) in 2004 and 2014.

^d Brazil in 2010–2012 and 2014; Chile in 2011; China in 2011; India in 2010–2012; Portugal in 2012; Russia in 2007; South Korea in 2009–2011; Spain in 2010 and 2011; and United Kingdom in 2010 and 2011.

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

Notes: • See Note 9, "Natural Gas Imports and Exports," at end of section.

• Through 1964, all volumes are shown on a pressure base of 14.65 psia (pounds per square inch absolute) at 60° Fahrenheit; beginning in 1965, the pressure base is 14.73 psia at 60° Fahrenheit. • 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.gov/totalenergy/data/monthly/#naturalgas> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.

Sources: • **1949–1954:** U.S. Energy Information Administration (EIA) estimates based on Bureau of Mines, Minerals Yearbook, "Natural Gas" chapter. • **1955–1971:** Federal Power Commission data. • **1972–1987:** EIA, Form FPC-14, "Annual Report for Importers and Exporters of Natural Gas." • **1988–2011:** EIA, *Natural Gas Annual*, annual reports. • **2012 forward:** EIA, *Natural Gas Monthly*, October 2014, Tables 4 and 5; and U.S. Department of Energy, Office of Fossil Energy, "Natural Gas Imports and Exports."

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}
1950 Total	NA	NA	NA	NA	NA	175	230	-54
1955 Total	863	505	1,368	40	8.7	437	505	-68
1960 Total	NA	NA	2,184	NA	NA	713	844	-132
1965 Total	1,848	1,242	3,090	83	7.2	960	1,078	-118
1970 Total	2,326	1,678	4,004	257	18.1	1,459	1,857	-398
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
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 Total	4,232	2,840	7,073	-39	-1.4	3,374	3,340	34
2009 Total	4,277	3,130	7,407	290	10.2	2,966	3,315	-349
2010 Total	4,301	3,111	7,412	-19	-6	3,274	3,291	-17
2011 Total	4,302	3,462	7,764	351	11.3	3,074	3,422	-348
2012 January	4,309	2,910	7,219	604	26.2	619	75	544
February	4,310	2,449	6,758	727	42.2	516	56	460
March	4,321	2,473	6,795	896	56.8	205	240	-35
April	4,325	2,611	6,936	823	46.0	126	264	-137
May	4,332	2,887	7,219	700	32.0	74	358	-284
June	4,338	3,115	7,454	586	23.2	91	323	-232
July	4,343	3,245	7,588	470	16.9	130	264	-134
August	4,348	3,406	7,754	387	12.8	134	300	-166
September	4,352	3,693	8,045	277	8.1	67	357	-290
October	4,365	3,929	8,294	125	3.3	86	328	-242
November	4,372	3,799	8,172	-44	-1.1	281	156	125
December	4,372	3,413	7,785	-49	-1.4	490	105	385
Total	4,372	3,413	7,785	-49	-1.4	2,818	2,825	-7
2013 January	R 4,377	R 2,699	R 7,077	R -211	R -7.2	793	72	721
February	R 4,384	R 2,099	R 6,483	R -349	R -14.3	648	44	604
March	R 4,382	R 1,720	R 6,102	R -753	R -30.5	R 483	R 103	380
April	R 4,381	R 1,855	R 6,236	R -756	R -29.0	R 135	272	R -137
May	R 4,385	R 2,270	R 6,655	R -617	R -21.4	49	R 468	R -419
June	4,385	R 2,643	7,027	-473	-15.2	R 69	R 441	-372
July	4,365	2,937	7,302	-308	-9.5	R 99	373	-275
August	4,362	R 3,212	R 7,574	R -194	-5.7	102	R 374	R -272
September	4,363	3,565	7,928	R -129	-3.5	66	421	-355
October	R 4,364	R 3,817	R 8,181	R -112	-2.9	R 84	340	R -256
November	4,366	R 3,605	R 7,971	R -194	-5.1	366	155	211
December	4,365	2,890	7,255	-523	-15.3	808	94	714
Total	4,365	2,890	7,255	-523	-15.3	R 3,702	R 3,156	R 546
2014 January	4,363	1,925	6,288	R -774	R -28.7	1,039	68	971
February	4,360	1,200	5,560	R -899	R -42.8	833	104	728
March	4,350	857	5,207	R -863	R -50.2	488	134	354
April	4,357	1,066	5,423	R -789	R -42.5	105	323	-217
May	4,353	1,548	5,901	R -722	R -31.8	51	529	-478
June	4,358	2,005	6,364	-637	-24.1	44	506	-462
July	4,361	2,402	6,763	-535	-18.2	63	463	-400
August	4,366	2,769	7,136	-443	-13.8	73	446	-373
8-Month Total	--	--	--	--	--	2,696	2,573	123
2013 8-Month Total	--	--	--	--	--	2,377	2,146	231
2012 8-Month Total	--	--	--	--	--	1,895	1,880	15

^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 1980–2013, 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. NA=Not available.

Notes: • Through 1964, all volumes are shown on a pressure base of 14.65 psia (pounds per square inch absolute) at 60° Fahrenheit; beginning in 1965, the pressure base is 14.73 psia at 60° Fahrenheit. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia (except Alaska, which is excluded through 2012).

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#naturalgas> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data

beginning in 1973.

Sources: • **Storage Activity: 1949–1975**—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. **1996–2011**—EIA, *Natural Gas Monthly (NGM)*, monthly issues. **2012 forward**—EIA, NGM, October 2014, Table 8. • **All Other Data: 1954–1974**—American Gas Association, *Gas Facts*, annual issues. **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." **1996–2011**—EIA, NGM, monthly issues. **2012 forward**—EIA, NGM, October 2014, Table 8.

Natural Gas

Note 1. Natural Gas Production. Final annual data are from the U.S. Energy Information Administration's (EIA) *Natural Gas Annual (NGA)*.

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 EIA's *Natural Gas Monthly (NGM)*.

Monthly data are considered preliminary until after publication of the 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 pressure base of 14.73 psia (pounds per square inch absolute) at 60° Fahrenheit. Unless there are major changes, data are not revised until after publication of the NGA.

Differences between annual data in the 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 Plant Liquids Production. Natural gas plant liquids (NGPL) production is the reduction in volume of natural gas resulting from the removal of natural gas liquid constituents at natural gas processing plants—these natural gas plant liquids are transferred to petroleum supply.

Annual data are from EIA's *Natural Gas Annual (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 NGPL production, see the NGA.

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

Monthly data are revised and considered final after publication of the NGA. Final monthly data are estimated by allocating annual NGPL production data to the months on the basis of total natural gas marketed production data from the 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, and air or inert gases added for Btu stabilization.

Annual data beginning with 1980 are from EIA's *Natural Gas Annual (NGA)*. Unknown quantities of supplemental gaseous fuels are included in consumption data for 1979 and earlier years. Monthly data are considered preliminary until after publication of the 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, the amount consumed by each energy-use sector is estimated by EIA. These estimates are used to create natural gas (without supplemental gaseous fuels) data for Tables 1.3, 2.2, 2.3, 2.4, and 2.6 (note: to avoid double-counting in these tables, supplemental gaseous fuels are accounted for in their primary energy category: "Coal," "Petroleum," or "Biomass"). 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. Injection and withdrawal data from the FERC-8/EIA-191 survey may be adjusted to correspond to data from Form EIA-176 for publication of EIA's *Natural Gas Annual (NGA)*.

Total underground storage capacity, which includes both active and inactive fields, at the end of each calendar year since 1975 (first year data were available), in billion cubic feet, was:

1975	... 6,280	1989	... 8,120	2003	... 8,206
1976	... 6,544	1990	... 7,794	2004	... 8,255
1977	... 6,678	1991	... 7,993	2005	... 8,268
1978	... 6,890	1992	... 7,932	2006	... 8,330
1979	... 6,929	1993	... 7,989	2007	... 8,402
1980	... 7,434	1994	... 8,043	2008	... 8,499
1981	... 7,805	1995	... 7,953	2009	... 8,656
1982	... 7,915	1996	... 7,980	2010	... 8,764
1983	... 7,985	1997	... 8,332	2011	... 8,849
1984	... 8,043	1998	... 8,179	2012	... 8,991
1985	... 8,087	1999	... 8,229	2013	... 9,173
1986	... 8,145	2000	... 8,241		
1987	... 8,124	2001	... 8,182		
1988	... 8,124	2002	... 8,207		

Through 1990, monthly underground storage data are collected from the Federal Energy Regulatory Commission Form FERC-8 (interstate data) and EIA Form EIA-191 (intrastate data). Beginning in 1991, all data are collected on the revised Form EIA-191. Injection and withdrawal data from the EIA-191 survey may be adjusted to correspond to data from Form EIA-176 following publication of EIA's *Natural Gas Annual (NGA)*.

The final monthly and annual storage and withdrawal data for 1980–2013 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.

Note 6. Natural Gas Consumption. Natural gas consumption statistics include data for the following: "Residential Sector": residential deliveries; "Commercial Sector": commercial deliveries, including to commercial combined-heat-and-power (CHP) and commercial electricity-only plants; "Industrial Sector": lease and plant fuel use, and other industrial deliveries, including to industrial CHP and industrial electricity-only plants; "Transportation Sector": pipelines and distribution use, and vehicle fuel use; and "Electric Power Sector": electric utility and independent power producer use.

Final data for series other than "Other Industrial CHP" and "Electric Power Sector" are from EIA's *Natural Gas Annual (NGA)*. Monthly data are considered preliminary until after publication of the NGA. For more detailed information on the methods of estimating preliminary and final monthly data, see EIA's *Natural Gas Monthly*.

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 1989–1992, 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 Data Adjustments, 1993–2000. For 1993–2000, the original data for natural gas delivered to industrial consumers (now "Other Industrial" in Table 4.3) included deliveries to both industrial users and independent power producers (IPPs). These data were adjusted to remove the estimated consumption at IPPs from "Other Industrial" and include it with electric utilities under "Electric Power Sector." (To estimate the monthly IPP consumption, the monthly pattern for Other Industrial CHP in Table 4.3 was used.)

For 1996–2000, monthly data for several natural gas series shown in EIA's Natural Gas Navigator (see http://www.eia.gov/dnav/ng/ng_cons_sum_dcu_nus_m.htm) were not reconciled and updated to be consistent with the final annual data in EIA's *Natural Gas Annual*. In the *Monthly Energy Review*, monthly data for these series were adjusted so that the monthly data sum to the final annual values. The Table 4.1 data series (and years) that were adjusted are: Gross Withdrawals (1996, 1997), Marketed Production (1997), NGPL Production (1997, 1998, 2000), Dry Gas Production (1996, 1997), Supplemental Gaseous Fuels (1997–2000), Balancing Item (1997–2000), and Total Consumption (1997–2000). The Table 4.3 data series (and years) that were adjusted are: Lease and Plant Fuel (1997–2000), Total Industrial (1997–2000), Pipelines and Distribution (2000), Total Transportation (2000), and Total Consumption (1997–2000).

Note 9. 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, Peru, Qatar, Trinidad and Tobago, the United Arab Emirates, and Yemen. In addition, very small amounts of LNG arrived from Canada in 1973 (667 million cubic feet), 1977 (572 million cubic feet), 1981 (6 million cubic feet), and 2013 (555 million cubic feet). The United States exports natural gas via pipeline to Canada and Mexico; and exports LNG via tanker to Brazil, China, Chile, India, Japan, Portugal, Russia, South Korea, Spain, and United Kingdom. Also, small amounts of LNG have gone to Mexico since 1998 and to Canada in 2007 and 2012–2014. Small amounts of compressed natural gas have been exported to Canada since 2013.

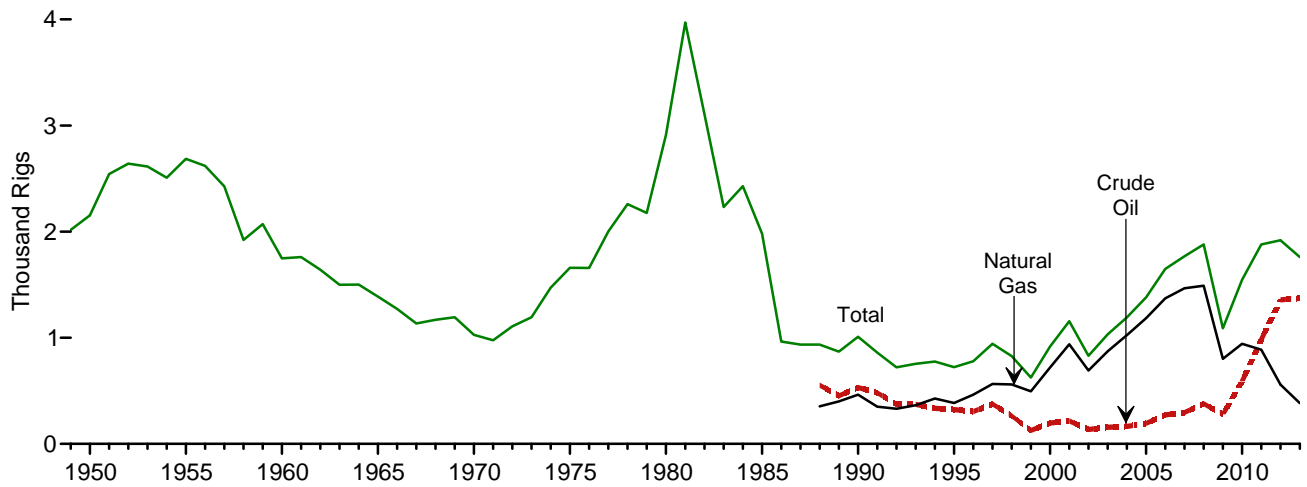
Annual and final monthly data are from the annual EIA Form FPC-14, "Annual Report for Importers and Exporters of Natural Gas," which requires data to be reported by month for the calendar year.

Preliminary monthly data are EIA estimates. For a discussion of estimation procedures, see EIA's *Natural Gas Monthly*. Preliminary data are revised after publication of EIA's *U.S. Imports and Exports of Natural Gas*.

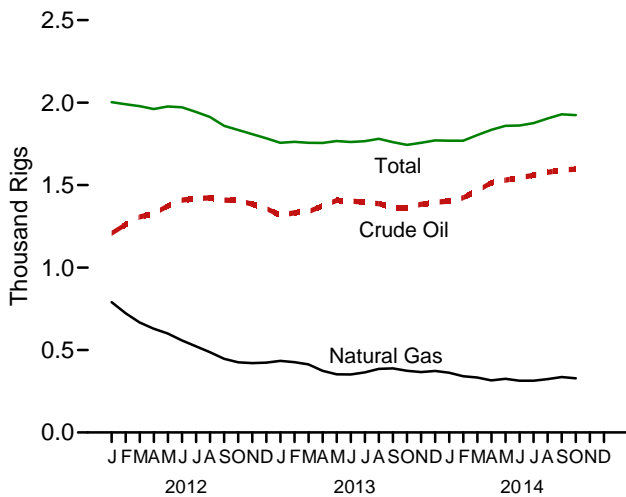
5. Crude Oil and Natural Gas Resource Development

Figure 5.1 Crude Oil and Natural Gas Resource Development Indicators

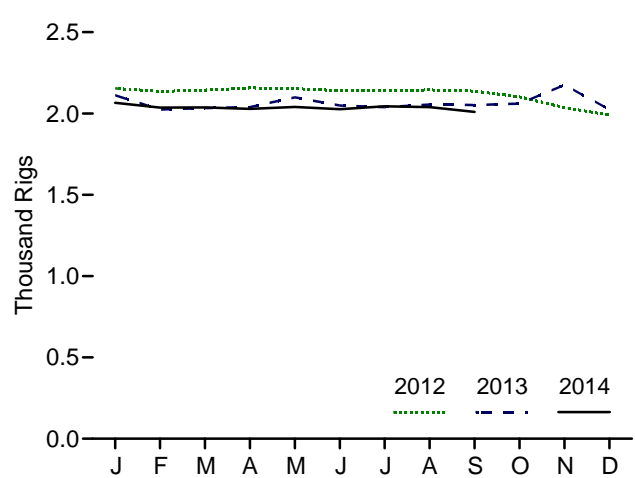
Rotary Rigs in Operation by Type, 1949–2013



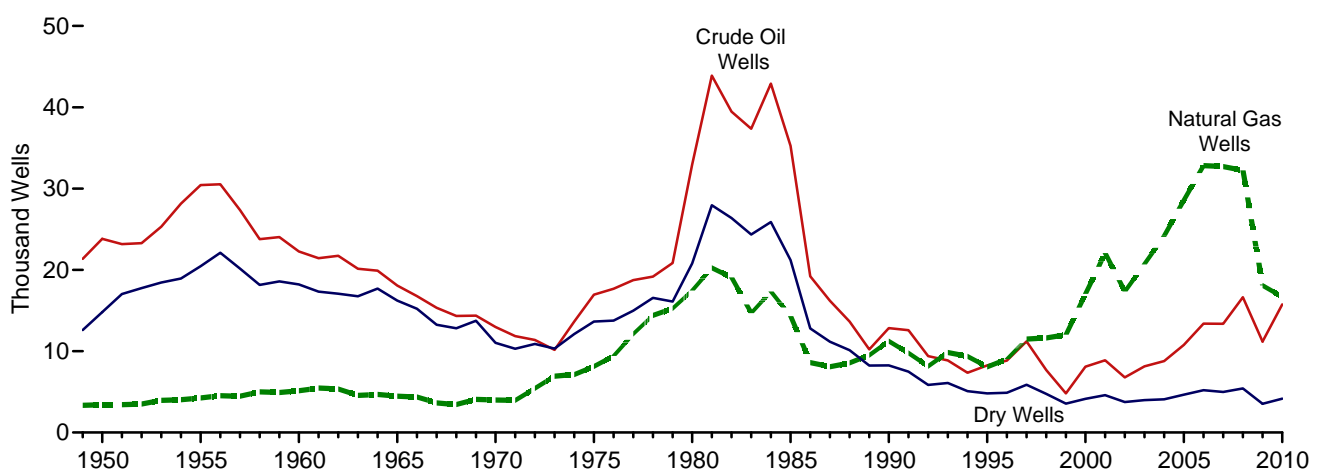
Rotary Rigs in Operation by Type, Monthly



Active Well Service Rig Count, Monthly



Total Wells Drilled by Type, 1949–2010



Web Page: <http://www.eia.gov/totalenergy/data/monthly/#crude>.
Sources: Tables 5.1 and 5.2.

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		
1950 Average	NA	NA	NA	NA	2,154	NA
1955 Average	NA	NA	NA	NA	2,686	NA
1960 Average	NA	NA	NA	NA	1,748	NA
1965 Average	NA	NA	NA	NA	1,388	NA
1970 Average	NA	NA	NA	NA	1,028	NA
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
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 Average	1,814	65	379	1,491	1,879	2,515
2009 Average	1,046	44	278	801	1,089	1,722
2010 Average	1,514	31	591	943	1,546	1,854
2011 Average	1,846	32	984	887	1,879	2,075
2012 January	1,960	43	1,208	790	2,003	2,154
February	1,949	42	1,261	723	1,990	2,135
March	1,935	43	1,307	667	1,979	2,143
April	1,917	44	1,329	629	1,961	2,157
May	1,931	46	1,373	600	1,977	2,153
June	1,923	49	1,409	558	1,972	2,139
July	1,894	51	1,419	522	1,944	2,140
August	1,863	50	1,423	487	1,913	2,144
September	1,808	51	1,409	447	1,859	2,137
October	1,785	49	1,407	425	1,834	2,102
November	1,758	51	1,385	421	1,809	2,036
December	1,733	51	1,358	423	1,784	1,990
Average	1,871	48	1,357	558	1,919	2,113
2013 January	1,704	52	1,318	434	1,756	2,112
February	1,708	54	1,332	426	1,762	2,024
March	1,705	51	1,339	413	1,756	2,033
April	1,707	49	1,374	374	1,755	2,039
May	1,715	52	1,407	353	1,767	2,099
June	1,706	55	1,404	352	1,761	2,049
July	1,708	58	1,396	364	1,766	2,039
August	1,720	61	1,388	386	1,781	2,055
September	1,695	65	1,364	389	1,760	2,052
October	1,683	61	1,364	374	1,744	2,061
November	1,698	58	1,364	366	1,756	2,175
December	1,710	61	1,396	373	1,771	2,024
Average	1,705	56	1,373	383	1,761	2,064
2014 January	1,711	58	1,403	362	1,769	2,066
February	1,714	55	1,424	341	1,769	2,036
March	1,750	54	1,466	333	1,803	2,037
April	1,784	52	1,515	316	1,835	2,028
May	1,801	58	1,530	325	1,859	2,040
June	1,804	58	1,545	314	1,861	2,026
July	1,819	57	1,560	314	1,876	2,044
August	1,842	62	1,578	324	1,904	2,039
September	1,866	64	1,592	336	1,930	R 2,010
October	1,867	58	1,596	328	1,924	NA
10-Month Average	1,797	57	1,521	330	1,854	NA
2013 10-Month Average	1,706	55	1,369	386	1,761	2,056
2012 10-Month Average	1,897	47	1,356	584	1,944	2,133

^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. "Total" values may not equal the sum of "Onshore" and "Offshore" due to independent rounding.

^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.

R=Revised. NA=Not available.

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

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#crude> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.

Sources: • **Rotary Rigs in Operation:** Baker Hughes, Inc., Houston, TX, "North America Rig Count," used with permission. See <http://phx.corporate-ir.net/phoenix.zhtml?c=79687&p=irol-reports&other>. • **Active Well Service Rig Count:** Cameron International Corporation, Houston, TX. See <http://www.c-a-m.com/Forms/Product.aspx?prodID=cdc209c4-79a3-47e5-99c2-fd6da6d4aad6>.

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												
1950 Total	1,583	431	8,292	10,306	22,229	3,008	6,507	31,744	23,812	3,439	14,799	42,050	157,358
1955 Total	2,236	874	11,832	14,942	28,196	3,392	8,620	40,208	30,432	4,266	20,452	55,150	226,182
1960 Total	1,321	868	9,515	11,704	20,937	4,281	8,697	33,915	22,258	5,149	18,212	45,619	192,176
1965 Total	946	515	8,005	9,466	17,119	3,967	8,221	29,307	18,065	4,482	16,226	38,773	174,882
1970 Total	757	477	6,162	7,396	12,211	3,534	4,869	20,614	12,968	4,011	11,031	28,010	138,556
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	3,652	5,241	12,061	10,435	4,593	27,089	12,839	11,246	8,245	32,330	156,044
1995 Total	570	558	2,024	3,152	7,678	7,524	2,790	17,992	8,248	8,082	4,814	21,144	117,156
2000 Total	288	657	1,341	2,286	7,802	16,394	2,805	27,001	8,090	17,051	4,146	29,287	144,425
2001 Total	357	1,052	1,733	3,142	8,531	21,020	2,865	32,416	8,888	22,072	4,598	35,558	180,141
2002 Total	258	844	1,282	2,384	6,517	16,498	2,472	25,487	6,775	17,342	3,754	27,871	145,159
2003 Total	350	997	1,297	2,644	7,779	19,725	2,685	30,189	8,129	20,722	3,982	32,833	177,239
2004 Total	383	1,671	1,350	3,404	8,406	22,515	2,732	33,653	8,789	24,186	4,082	37,057	204,279
2005 Total	539	2,141	1,462	4,142	10,240	26,449	3,191	39,880	10,779	28,590	4,653	44,022	240,307
2006 Total	646	2,456	1,547	4,649	12,739	30,382	3,659	46,780	13,385	32,838	5,206	51,429	282,675
2007 Total	808	2,794	1,582	5,184	12,563	29,925	3,399	45,887	13,371	32,719	4,981	51,071	301,515
2008 January	88	208	144	440	1,111	2,321	272	3,704	1,199	2,529	416	4,144	25,306
February	82	230	107	419	1,080	2,261	247	3,588	1,162	2,491	354	4,007	24,958
March	66	216	127	409	1,132	2,363	271	3,766	1,198	2,579	398	4,175	26,226
April	68	189	130	387	1,177	2,415	281	3,873	1,245	2,604	411	4,260	26,920
May	88	206	124	418	1,317	2,449	240	4,006	1,405	2,655	364	4,424	27,947
June	63	195	139	397	1,428	2,540	299	4,267	1,491	2,735	438	4,664	28,739
July	79	163	171	413	1,439	2,695	344	4,478	1,518	2,858	515	4,891	29,140
August	67	165	144	376	1,448	2,735	379	4,562	1,515	2,900	523	4,938	28,942
September	52	166	164	382	1,488	2,667	355	4,510	1,540	2,833	519	4,892	28,960
October	80	243	173	496	1,549	2,841	373	4,763	1,629	3,084	546	5,259	31,505
November	97	192	160	449	1,361	2,418	334	4,113	1,458	2,610	494	4,562	29,276
December	67	172	132	371	1,206	2,196	313	3,715	1,273	2,368	445	4,086	26,222
Total	897	2,345	1,715	4,957	15,736	29,901	3,708	49,345	16,633	32,246	5,423	54,302	334,141
2009 January	80	171	99	350	1,192	2,253	250	3,695	1,272	2,424	349	4,045	28,077
February	62	125	88	275	991	1,925	195	3,111	1,053	2,050	283	3,386	25,440
March	59	146	88	293	867	1,771	210	2,848	926	1,917	298	3,141	25,304
April	36	68	93	197	755	1,396	205	2,356	791	1,464	298	2,553	21,406
May	47	90	80	217	584	1,136	156	1,876	631	1,226	236	2,093	20,055
June	44	91	75	210	804	1,297	189	2,290	848	1,388	264	2,500	16,301
July	40	100	101	241	789	1,188	217	2,194	829	1,288	318	2,435	13,543
August	49	84	88	221	867	1,372	207	2,446	916	1,456	295	2,667	15,970
September	61	71	96	228	945	1,170	207	2,322	1,006	1,241	303	2,550	15,547
October	55	79	78	212	966	1,167	222	2,355	1,021	1,246	300	2,567	17,261
November	38	83	85	206	931	1,133	199	2,263	969	1,216	284	2,469	16,236
December	34	98	84	216	894	1,074	213	2,181	928	1,172	297	2,397	16,424
Total	605	1,206	1,055	2,866	10,585	16,882	2,470	29,937	11,190	18,088	3,525	32,803	231,562
2010 January	55	91	81	227	898	1,264	169	2,331	953	1,355	250	2,558	15,304
February	44	71	67	182	871	1,096	144	2,111	915	1,167	211	2,293	16,862
March	59	85	88	232	1,062	1,224	216	2,502	1,121	1,309	304	2,734	15,102
April	49	78	77	204	1,173	1,152	249	2,574	1,222	1,230	326	2,778	17,904
May	48	107	86	241	1,282	1,208	255	2,745	1,330	1,315	341	2,986	17,987
June	61	100	90	251	1,385	1,250	302	2,937	1,446	1,350	392	3,188	19,408
July	46	103	105	254	1,386	1,443	390	3,219	1,432	1,546	495	3,473	20,847
August	56	104	94	254	1,434	1,402	314	3,150	1,490	1,506	408	3,404	22,923
September	57	73	88	218	1,374	1,358	268	3,000	1,431	1,431	356	3,218	23,037
October	75	87	117	279	1,502	1,463	283	3,248	1,577	1,550	400	3,527	22,123
November	62	114	103	279	1,400	1,352	263	3,015	1,462	1,466	366	3,294	24,561
December	57	92	70	219	1,317	1,379	243	2,939	1,374	1,471	313	3,158	23,189
Total	669	1,105	1,066	2,840	15,084	15,591	3,096	33,771	15,753	16,696	4,162	36,611	239,247

Notes: • Data are estimates. • For 1960–1969, data are for well completion reports received by the American Petroleum Institute during the reporting year; for all other years, data are for well completions in a given year. • Through 1989, 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. Beginning in 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.gov/totalenergy/data/monthly/#crude> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.

Sources: • **1949–1965:** Gulf Publishing Company, *World Oil*, "Forecast-Review" issue. • **1966–1969:** American Petroleum Institute (API), *Quarterly Review of Drilling Statistics for the United States*, annual summaries and monthly reports. • **1970–1989:** U.S. Energy Information Administration (EIA) computations based on well reports submitted to the API. • **1990 forward:** EIA computations based on well reports submitted to IHS, Inc., Denver, CO.

Data for 2011 forward in this table have been removed while EIA evaluates the quality of the data and the estimation methodology.

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

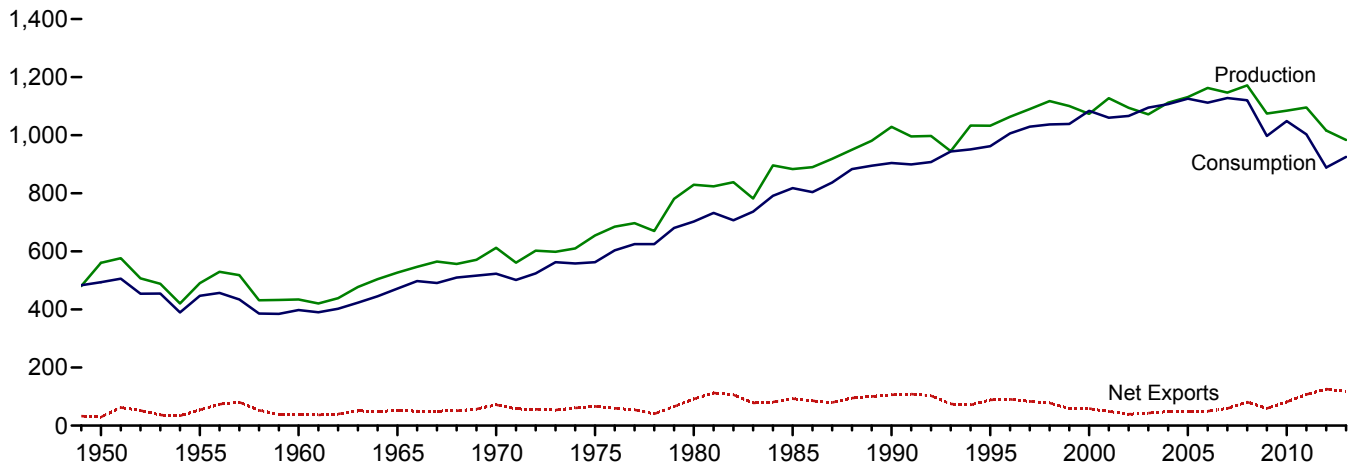
completion data for the above types and classes of wells as reported to the American Petroleum Institute (API) during a given month. Due to time lags between the date of well completion and the date of completion reporting to the API, as-reported well completions proved to be an inaccurate indicator 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.

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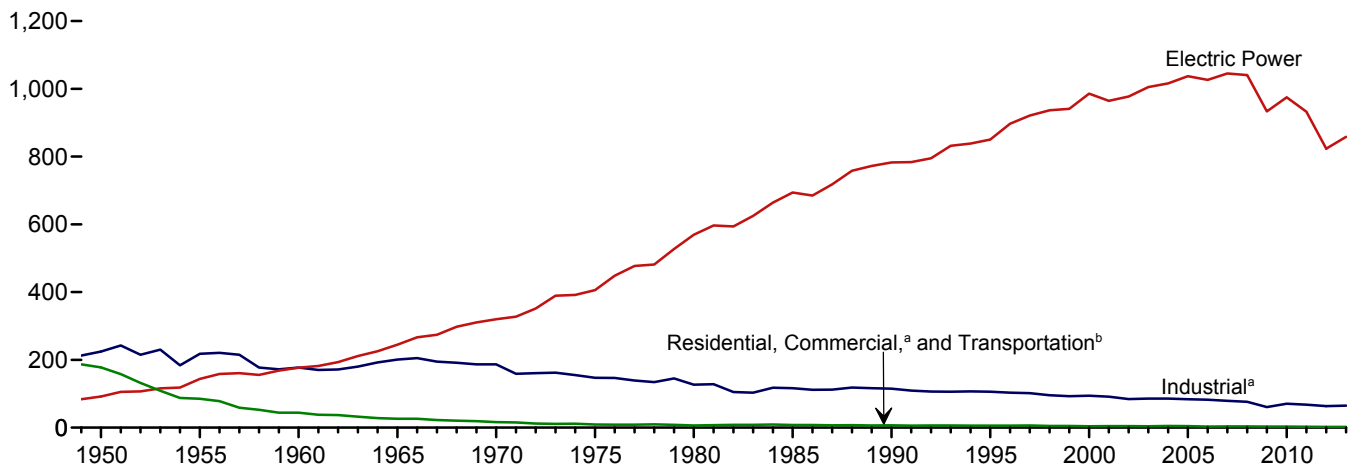
6. Coal

Figure 6.1 Coal
(Million Short Tons)

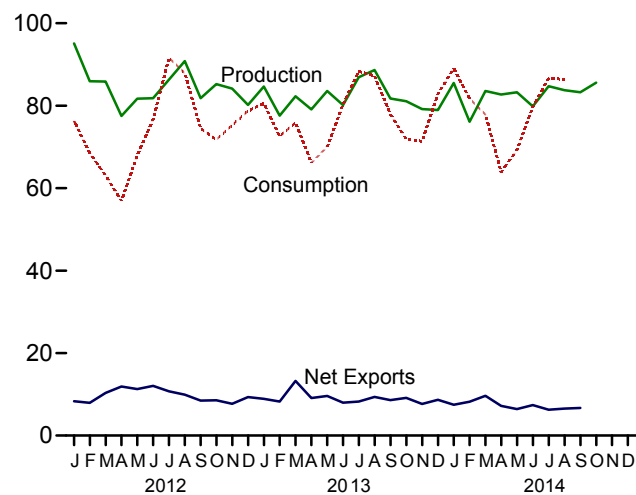
Overview, 1949–2013



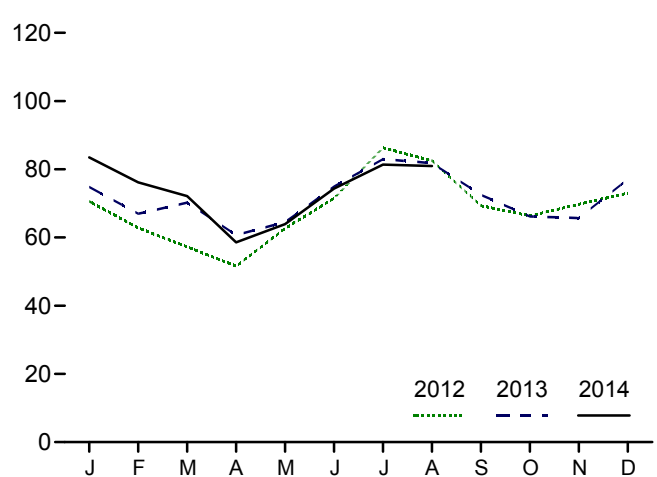
Consumption by Sector, 1949–2013



Overview, Monthly



Electric Power Sector Consumption, Monthly



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

^bFor 1978 forward, small amounts of transportation sector use are included in "Industrial."

Web Page: <http://www.eia.gov/totalenergy/data/monthly/#coal>.
Sources: Tables 6.1–6.2.

Table 6.1 Coal Overview
(Thousand Short Tons)

	Production ^a	Waste Coal Supplied ^b	Trade			Stock Change ^{d,e}	Losses and Unaccounted for ^{e,f}	Consumption
			Imports	Exports	Net Imports ^c			
1950 Total	560,388	NA	365	29,360	-28,995	27,829	9,462	494,102
1955 Total	490,838	NA	337	54,429	-54,092	-3,974	-6,292	447,012
1960 Total	434,329	NA	262	37,981	-37,719	-3,194	1,722	398,081
1965 Total	526,954	NA	184	51,032	-50,848	1,897	2,244	471,965
1970 Total	612,661	NA	36	71,733	-71,697	11,100	6,633	523,231
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
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 Total	1,171,809	14,146	34,208	81,519	-47,311	12,354	5,740	1,120,548
2009 Total	1,074,923	13,666	22,639	59,097	-36,458	39,668	14,985	997,478
2010 Total	1,084,368	13,651	19,353	81,716	-62,363	-13,039	182	1,048,514
2011 Total	1,095,628	13,209	13,088	107,259	-94,171	211	11,506	1,002,948
2012 January	95,102	1,104	789	9,126	-8,337	3,832	7,745	76,292
February	85,914	926	534	8,460	-7,927	7,905	2,542	68,466
March	85,849	863	699	11,055	-10,356	9,618	3,663	63,075
April	77,514	681	623	12,529	-11,905	7,132	2,260	56,899
May	81,717	892	986	12,257	-11,271	419	2,905	68,015
June	81,816	926	719	12,749	-12,030	-5,461	-469	76,642
July	86,321	1,058	894	11,623	-10,729	-15,082	145	91,588
August	90,816	1,039	667	10,597	-9,930	-6,905	912	87,919
September	81,818	885	855	9,344	-8,489	2,352	-2,615	74,477
October	85,239	796	868	9,421	-8,554	3,999	1,709	71,774
November	84,147	1,090	798	8,516	-7,718	1,639	562	75,319
December	80,205	934	727	10,068	-9,341	-2,545	-4,377	78,721
Total	1,016,458	11,196	9,159	125,746	-116,586	6,902	14,980	889,185
2013 January	84,658	933	654	9,572	-8,917	-8,189	4,291	80,571
February	77,602	869	385	8,627	-8,242	-6,262	3,956	72,535
March	82,277	1,063	390	13,637	-13,247	-5,516	-328	75,936
April	79,111	676	672	9,754	-9,082	2,486	2,094	66,125
May	83,560	940	870	10,478	-9,608	5,308	-424	70,008
June	80,150	934	1,213	9,194	-7,981	-7,412	181	80,335
July	86,894	1,040	874	9,125	-8,251	-9,336	675	88,344
August	88,664	840	710	10,073	-9,363	-7,765	674	87,231
September	81,760	608	815	9,391	-8,576	-2,482	-1,646	77,919
October	81,077	626	707	9,855	-9,148	672	-23	71,906
November	79,163	618	850	8,511	-7,662	2,376	-1,645	71,388
December	78,933	1,047	766	9,443	-8,676	-5,268	-6,238	82,810
Total	983,849	10,194	8,906	117,659	-108,753	-41,386	1,569	925,106
2014 January	85,502	1,116	1,064	8,516	-7,452	-16,063	6,184	89,046
February	76,123	999	583	8,785	-8,203	-14,274	1,482	81,710
March	83,561	1,089	803	10,430	-9,627	-1,742	-1,084	77,849
April	82,729	934	930	8,134	-7,205	10,679	1,875	63,903
May	83,250	852	1,280	7,718	-6,439	8,171	241	69,250
June	79,848	1,003	1,319	8,704	-7,385	-3,606	-2,651	79,724
July	84,719	F 1,064	928	7,191	-6,264	R -7,251	R 129	R 86,641
August	83,779	RF 1,064	1,122	7,665	-6,544	R -4,359	R -3,705	R 86,362
September	83,246	NA	R 1,148	R 7,848	R -6,700	NA	NA	NA
October	85,602	NA	NA	NA	NA	NA	NA	NA
10-Month Total ...	828,359	NA	NA	NA	NA	NA	NA	NA
2013 10-Month Total ...	825,752	8,529	7,291	99,705	-92,415	-38,494	9,452	770,909
2012 10-Month Total ...	852,106	9,171	7,633	107,161	-99,528	7,808	18,796	735,146

^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 and a positive value indicates an increase. See Table 6.3 for stocks data coverage.

^e In 1949, stock change is included in "Losses and Unaccounted for."

^f The difference between calculated coal supply and disposition, due to coal

quantities lost or to data reporting problems.

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.gov/totalenergy/data/monthly/#coal> (Excel and CSV files) for all available annual data beginning in 1949 and monthly 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					Electric Power Sector ^{c,d}	Total
		Residential ^a and Commercial	Industrial			Total		
			Coke Plants	Other ^b	Total			
1950 Year	NA	2,462	16,809	26,182	42,991	45,453	31,842	77,295
1955 Year	NA	998	13,422	15,880	29,302	30,300	41,391	71,691
1960 Year	NA	666	11,122	11,637	22,759	23,425	51,735	75,160
1965 Year	NA	353	10,640	13,122	23,762	24,115	54,525	78,640
1970 Year	NA	300	9,045	11,781	20,826	21,126	71,908	93,034
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
2000 Year	31,905	NA	1,494	4,587	6,081	6,081	^d 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 Year	34,688	498	2,331	6,007	8,338	8,338	161,589	205,112
2009 Year	47,718	529	1,957	5,109	7,066	7,595	189,467	244,780
2010 Year	49,820	552	1,925	4,525	6,451	7,003	174,917	231,740
2011 Year	51,897	603	2,610	4,455	7,065	7,668	172,387	231,951
2012 January	48,318	587	2,507	4,280	6,786	7,374	180,091	235,783
February	49,743	572	2,403	4,104	6,508	7,080	186,866	243,688
March	51,141	557	2,300	3,929	6,229	6,786	195,380	253,307
April	51,283	566	2,299	4,025	6,324	6,890	202,265	260,439
May	50,726	575	2,297	4,122	6,419	6,995	203,137	260,858
June	50,374	585	2,295	4,219	6,514	7,099	197,924	255,397
July	49,120	589	2,329	4,318	6,647	7,236	183,958	240,314
August	47,499	592	2,363	4,418	6,781	7,373	178,537	233,409
September	46,231	596	2,396	4,518	6,914	7,510	182,020	235,761
October	45,830	592	2,438	4,504	6,942	7,534	186,396	239,760
November	45,550	587	2,480	4,489	6,970	7,557	188,291	241,398
December	46,157	583	2,522	4,475	6,997	7,581	185,116	238,853
2013 January	^F 44,632	565	2,417	4,303	6,720	7,286	178,747	230,664
February	^F 42,087	548	2,312	4,131	6,443	6,991	175,325	224,403
March	^F 40,673	530	2,207	3,959	6,166	6,696	171,518	218,887
April	^F 41,922	529	2,305	3,964	6,268	6,797	172,654	221,373
May	^F 43,112	529	2,402	3,968	6,370	6,899	176,670	226,681
June	^F 41,735	528	2,500	3,973	6,473	7,001	170,534	219,270
July	^F 43,263	529	2,516	4,090	6,606	7,135	159,536	209,934
August	^F 40,782	529	2,531	4,208	6,739	7,269	154,119	202,169
September	^F 40,100	530	2,546	4,326	6,872	7,402	152,185	199,688
October	^F 39,805	518	2,431	4,253	6,684	7,202	153,352	200,360
November	^F 39,979	506	2,315	4,181	6,496	7,003	155,754	202,736
December	^F 42,692	495	2,200	4,108	6,308	6,803	147,973	197,468
2014 January	^F 42,632	465	2,064	3,921	5,984	6,449	132,324	181,404
February	^F 42,087	435	1,927	3,733	5,660	6,095	118,949	167,131
March	^F 41,673	405	1,791	3,545	5,336	5,741	117,974	165,388
April	^F 41,922	413	1,833	3,579	5,412	5,825	128,321	176,067
May	^F 42,112	421	1,875	3,613	5,488	5,908	136,218	184,239
June	^F 41,735	429	1,937	3,647	5,584	6,013	132,885	180,633
July	^F 41,763	^F 431	^{RF} 1,904	^F 3,895	^{RF} 5,799	^{RF} 6,230	125,389	^R 173,382
August	^F 41,532	^F 433	^F 1,879	^F 4,138	^F 6,016	^F 6,449	121,042	169,023

^a Through 1979, data are for the residential and commercial sectors. Beginning in 2008, data are for the commercial sector only.

^b Through 1979, data are for manufacturing plants and the transportation sector. For 1980–2007, data are for manufacturing plants only. Beginning in 2008, data are for manufacturing plants and coal transformation/processing plants.

^c 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.

^d Excludes waste coal. 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. 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.gov/totalenergy/data/monthly/#coal> (Excel and CSV files) for all available annual data beginning in 1949 and monthly 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.

Through 2001, 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 at <http://www.eia.gov/coal/production/weekly/>. 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. 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. Forecast data (designated by an “F”) are derived from forecasted values shown in EIA’s *Short-Term Energy Outlook* (DOE/EIA-0202) table titled “U.S. Coal Supply, Consumption, and Inventories.” 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—Through 2007, 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 using 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. Beginning in 2008, residential coal consumption data are not collected by EIA, and commercial coal consumption data are taken directly from reported data.

Industrial Coke Plants—Through 1979, 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 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—Through 1977, 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 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 311; 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. Through 2007, 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 20–30 thousand short 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 EIA’s *Short-Term Energy Outlook* (DOE/EIA-0202) table titled “U.S. Coal Supply, Consumption, and Inventories.” 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—Through 1997, 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—Through 1979, 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 commercial (excluding residential) stocks data are collected on Form EIA-3 (data for “Commercial and Institutional Coal Users”).

Industrial Coke Plants—Through 1979, 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—Through 1977, 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.gov/forecasts/steo/>.

Table 6.1 Sources

Production

1949–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

1949 forward: U.S. Department of Commerce, Bureau of the Census, Monthly Reports IM 145 (Imports) and EM 545 (Exports).

Stock Change

1950 forward: Calculated from data in Table 6.3.

Losses and Unaccounted for

1949 forward: Calculated as the sum of production, imports, and waste coal supplied, minus exports, stock change, and consumption.

Consumption

1949 forward: Table 6.2.

Table 6.2 Sources

Residential and Commercial Total

Through 2007, 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:

1949–1976: 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 Coal Consumption and Quality Report—Coke Plants.”

Commercial Total

Beginning in 2008, coal consumption by the commercial (excluding residential) sector is reported to EIA. Data for total commercial consumption are from:

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 (STIFS).

Commercial CHP

1989 forward: Table 7.4c.

Commercial Other

1949 forward: Calculated as “Commercial Total” minus “Commercial CHP.”

Industrial Coke Plants

1949–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, “Quarterly Coal Consumption and Quality Report—Coke Plants”; and, for forecast values, EIA, STIFS.

Other Industrial Total

1949–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, STIFS.

Other Industrial CHP

1989 forward: Table 7.4c.

Other Industrial Non-CHP

1949 forward: Calculated as “Other Industrial Total” minus “Other Industrial CHP.”

Transportation

1949–1976: 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

1949 forward: 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 (STIFS).

Residential and Commercial

1949–1976: 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, STIFS.

Industrial Coke Plants

1949–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, “Quarterly Coal Consumption and Quality Report—Coke Plants” and, for forecast values, EIA, STIFS.

Industrial Other

1949–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, STIFS.

Electric Power

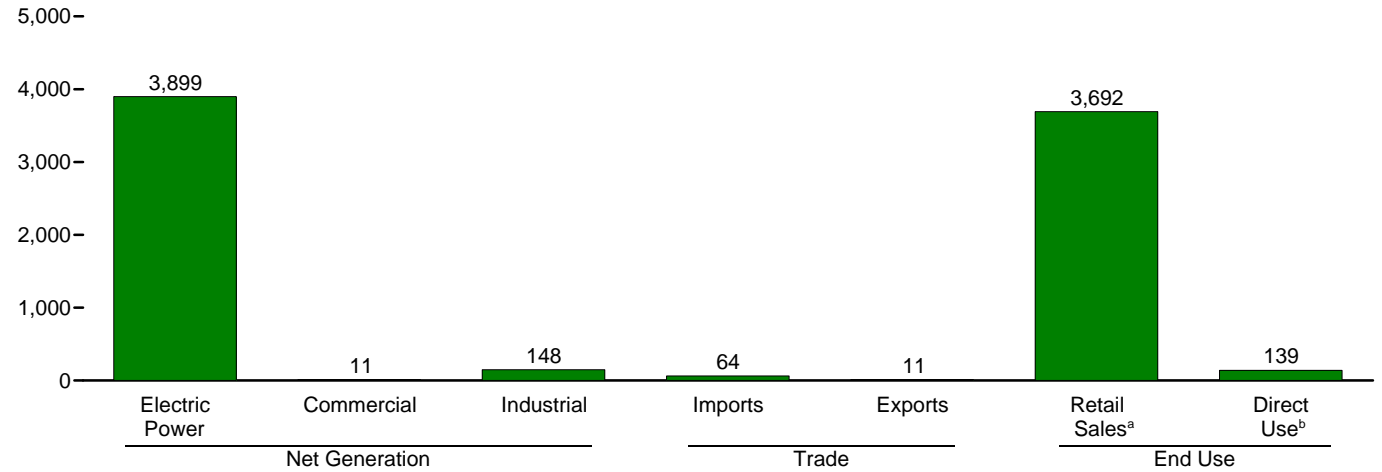
1949 forward: Table 7.5.

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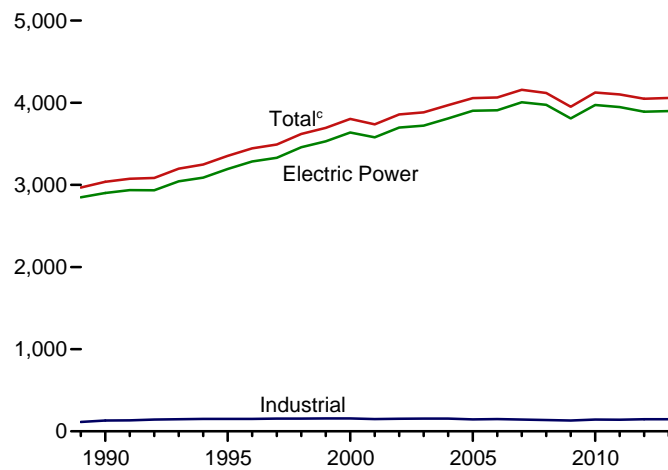
7. Electricity

Figure 7.1 Electricity Overview
(Billion Kilowatthours)

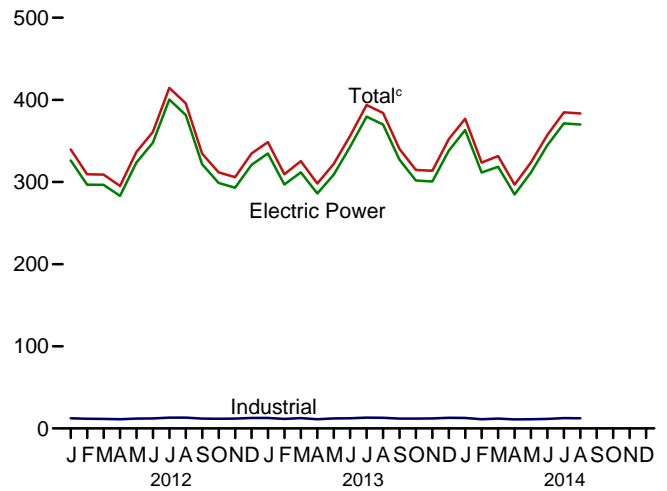
Overview, 2013



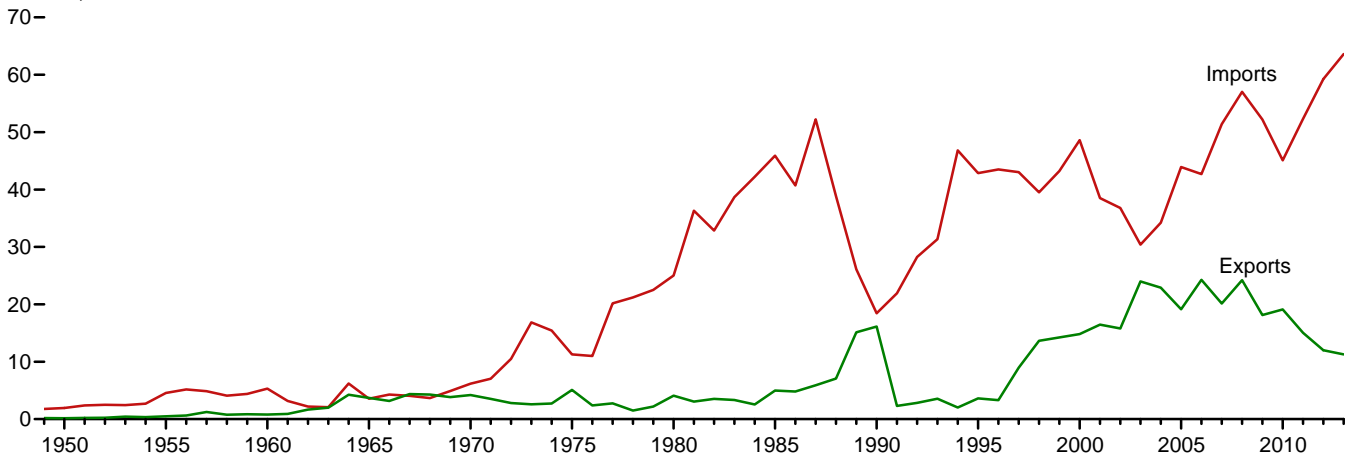
Net Generation by Sector, 1989–2013



Net Generation by Sector, Monthly



Trade, 1949–2013



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

^b See "Direct Use" in Glossary.

^c Includes commercial sector.

Web Page: <http://www.eia.gov/totalenergy/data/monthly/#electricity>.

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 Sector ^c	Total	Imports ^d	Exports ^d	Net Imports ^d		Retail Sales ^g	Direct Use ^h	Total
1950 Total	329	NA	5	334	2	(s)	2	44	291	NA	291
1955 Total	547	NA	3	550	5	(s)	4	58	497	NA	497
1960 Total	756	NA	4	759	5	1	5	76	688	NA	688
1965 Total	1,055	NA	3	1,058	4	4	(s)	104	954	NA	954
1970 Total	1,532	NA	3	1,535	6	4	2	145	1,392	NA	1,392
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	^c 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
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	44	19	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	298	3,765	126	3,890
2008 Total	3,974	8	137	4,119	57	24	33	287	3,733	132	3,865
2009 Total	3,810	8	132	3,950	52	18	34	261	3,597	127	3,724
2010 Total	3,972	9	144	4,125	45	19	26	265	3,754	132	3,886
2011 Total	3,948	10	142	4,100	52	15	37	255	3,750	133	3,883
2012 January	326	1	12	340	4	1	3	20	311	^E 12	323
February	297	1	12	309	4	1	3	14	287	^E 11	298
March	296	1	12	309	4	1	3	17	284	^E 11	295
April	283	1	11	295	5	1	4	18	271	^E 11	281
May	324	1	12	337	5	1	4	33	297	^E 11	308
June	348	1	12	361	5	1	4	28	325	^E 11	337
July	400	1	13	415	7	1	6	37	371	^E 13	383
August	381	1	13	396	6	1	5	24	365	^E 12	377
September	322	1	12	335	5	1	4	9	318	^E 11	329
October	299	1	12	312	4	1	4	13	291	^E 11	302
November	293	1	12	306	5	1	4	20	278	^E 11	290
December	321	1	13	335	4	1	3	29	297	^E 12	309
Total	3,890	11	146	4,048	59	12	47	263	3,695	^E 139	3,832
2013 January	335	1	13	348	5	1	4	23	318	^E 12	330
February	297	1	12	309	5	1	4	14	289	^E 11	300
March	312	1	13	325	5	1	4	23	294	^E 12	306
April	286	1	11	298	5	1	3	16	275	^E 11	285
May	309	1	12	322	5	1	5	28	287	^E 11	298
June	343	1	12	356	6	1	5	32	317	^E 12	329
July	380	1	13	394	6	1	5	31	356	^E 12	368
August	370	1	13	384	6	1	6	27	350	^E 12	363
September	327	1	12	340	5	1	4	12	321	^E 11	332
October	302	1	12	315	5	1	4	15	292	^E 11	303
November	301	1	12	314	5	1	4	27	279	^E 12	291
December	338	1	13	352	5	1	4	30	314	^E 12	326
Total	3,899	11	148	4,058	64	11	52	279	3,692	^E 139	3,831
2014 January	363	1	13	377	5	1	4	30	339	^E 12	351
February	312	1	11	324	4	1	3	7	309	^E 11	320
March	319	1	12	332	5	2	3	24	300	^E 11	311
April	285	1	11	297	4	1	3	16	273	^E 10	283
May	312	1	11	324	5	1	4	29	288	^E 11	299
June	345	1	12	357	5	1	4	31	319	^E 11	330
July	371	1	12	385	6	1	5	31	347	^E 12	359
August	370	1	12	383	6	1	5	29	348	^E 12	360
8-Month Total	2,676	8	95	2,779	40	10	30	196	2,523	^E 90	2,613
2013 8-Month Total	2,631	8	99	2,737	44	8	36	195	2,485	^E 93	2,578
2012 8-Month Total	2,656	8	97	2,761	41	8	32	191	2,510	^E 92	2,602

^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.

^E=Estimate. NA=Not available. (s)=Less than 0.5 billion kilowatthours.

Notes: • See Note 1, "Coverage of Electricity Statistics," and Note 2, "Classification of Power Plants Into Energy-Use Sectors," at end of section.

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

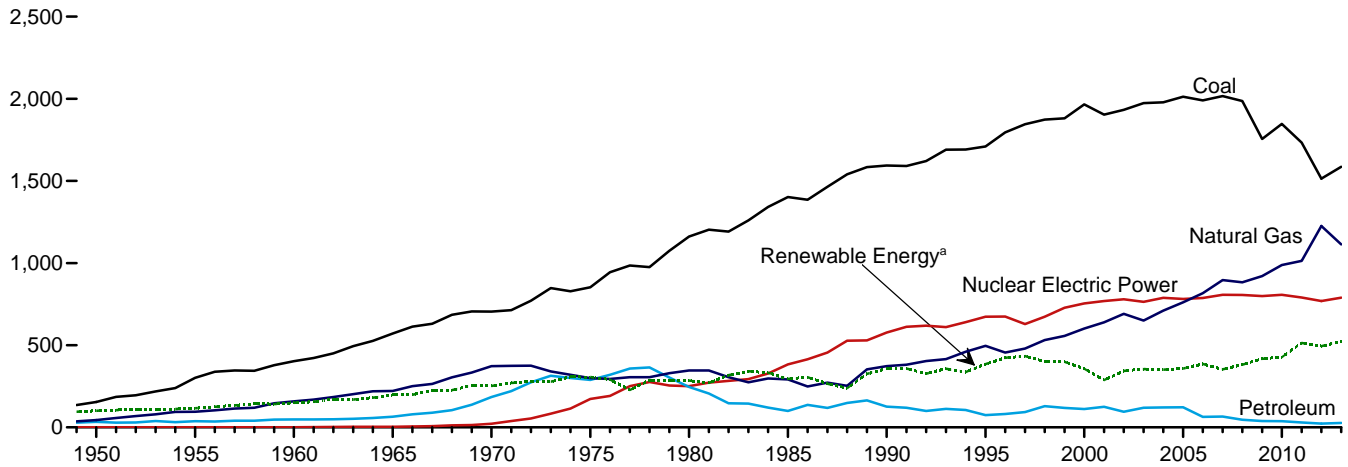
• Geographic coverage is the 50 states and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#electricity> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.

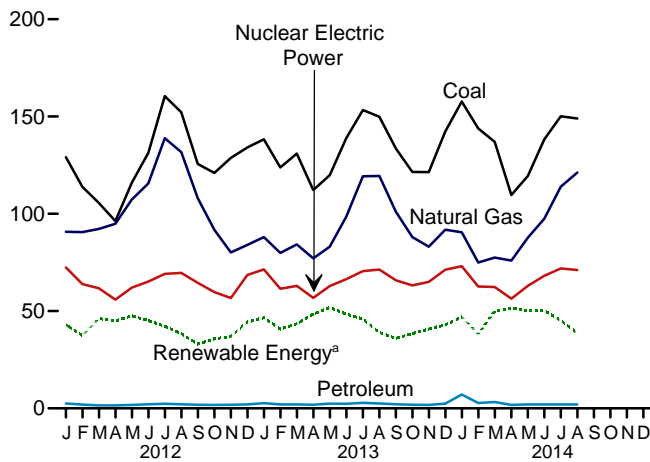
Sources: See end of section.

Figure 7.2 Electricity Net Generation
(Billion Kilowatthours)

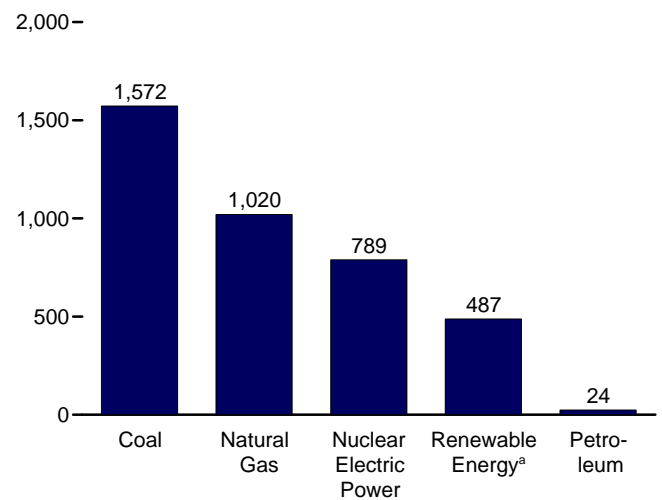
Total (All Sectors), Major Sources, 1949–2013



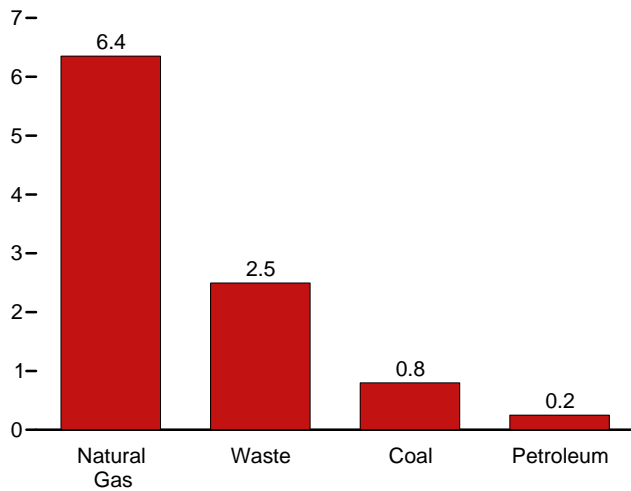
Total (All Sectors), Major Sources, Monthly



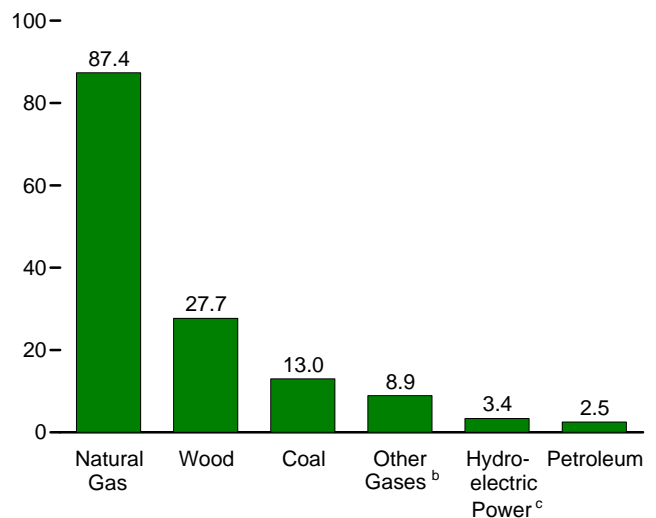
Electric Power Sector, Major Sources, 2013



Commercial Sector, Major Sources, 2013



Industrial Sector, Major Sources, 2013



^a Conventional hydroelectric power, wood, waste, geothermal, solar/PV, and wind.

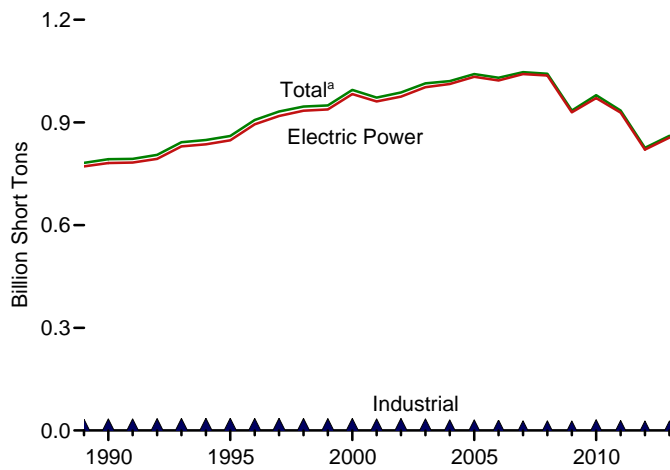
^b Blast furnace gas, and other manufactured and waste gases derived from fossil fuels.

^c Conventional hydroelectric power.

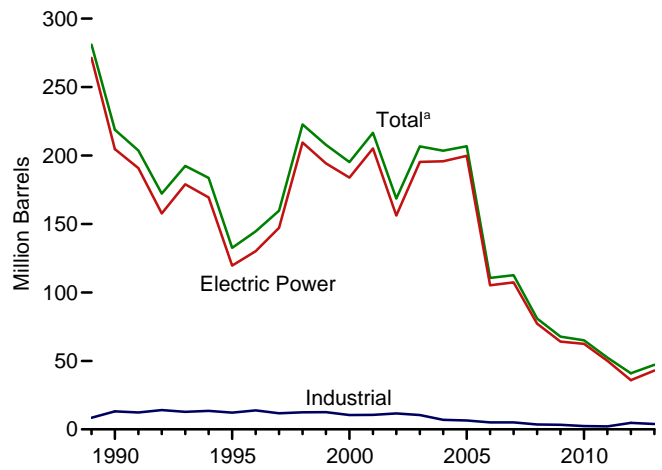
Web Page: <http://www.eia.gov/totalenergy/data/monthly/#electricity>.
Sources: Tables 7.2a–7.2c.

Figure 7.3 Consumption of Selected Combustible Fuels for Electricity Generation

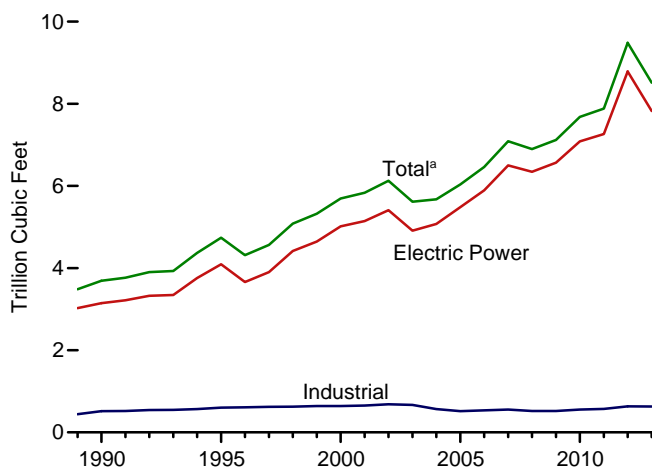
Coal by Sector, 1989–2013



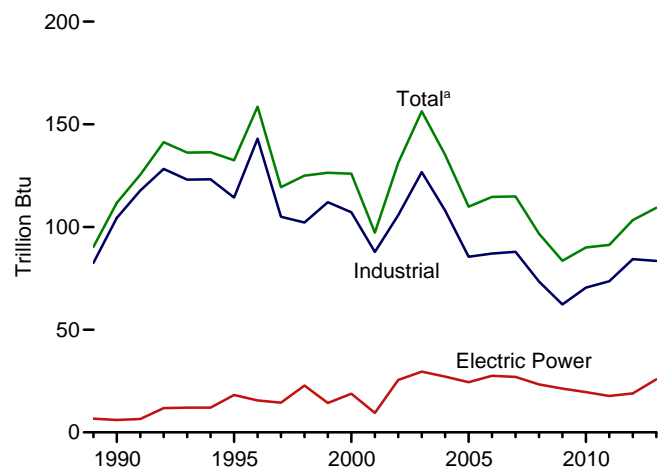
Petroleum by Sector, 1989–2013



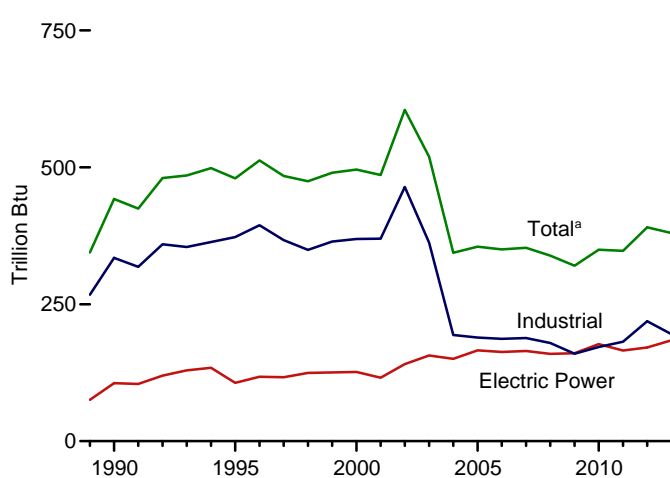
Natural Gas by Sector, 1989–2013



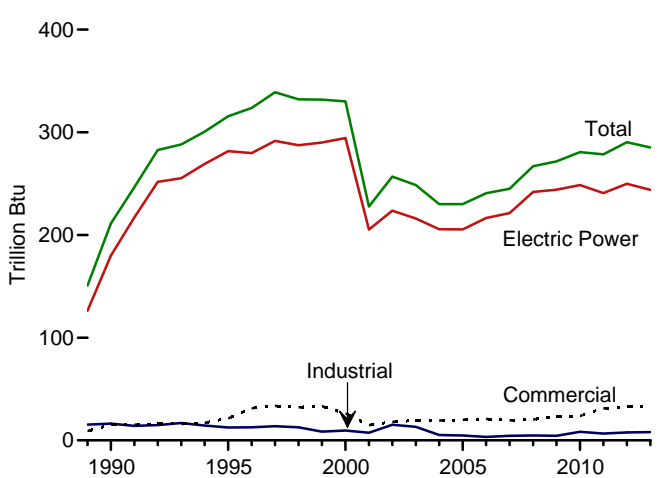
Other Gases^b by Sector, 1989–2013



Wood by Sector, 1989–2013



Waste by Sector, 1989–2013



^a Includes commercial sector.

^b Blast furnace gas, and other manufactured and waste gases derived from fossil fuels. Through 2010, also includes propane gas.

Web Page: <http://www.eia.gov/totalenergy/data/monthly/#electricity>.
Sources: Tables 7.3a–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	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	
1950 Total	91,871	5,423	69,998	NA	NA	75,421	629	NA	5	NA	NA
1955 Total	143,759	5,412	69,862	NA	NA	75,274	1,153	NA	3	NA	NA
1960 Total	176,685	3,824	84,371	NA	NA	88,195	1,725	NA	2	NA	NA
1965 Total	244,788	4,928	110,274	NA	NA	115,203	2,321	NA	3	NA	NA
1970 Total	320,182	24,123	311,381	NA	636	338,686	3,952	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
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 Total	1,042,335	12,832	38,191	2,822	5,417	80,932	6,896	97	339	267	172
2009 Total	934,683	12,658	28,576	2,328	4,821	67,668	7,121	84	320	272	170
2010 Total	979,684	14,050	23,997	2,056	4,994	65,071	7,680	90	350	281	184
2011 Total	934,938	11,231	14,251	1,844	5,012	52,387	7,884	91	348	279	205
2012 January	70,744	856	1,019	57	476	4,315	677	9	35	24	17
February	62,974	666	775	103	363	3,358	672	9	33	22	16
March	57,468	627	889	114	226	2,762	704	9	31	24	17
April	51,806	701	811	100	212	2,674	742	9	28	23	16
May	62,801	885	850	129	255	3,140	843	9	30	24	18
June	71,656	877	1,305	137	280	3,719	912	8	32	24	18
July	86,516	954	1,585	143	307	4,220	1,118	9	35	25	18
August	82,676	752	1,134	128	338	3,704	1,039	9	35	25	18
September	69,478	656	839	95	314	3,161	835	8	33	24	17
October	66,486	703	912	107	280	3,124	700	8	32	25	17
November	69,913	749	804	94	314	3,215	612	8	32	25	17
December	73,217	857	832	357	308	3,585	630	8	35	26	17
Total	825,734	9,285	11,755	1,565	3,675	40,977	9,485	103	390	290	204
2013 January	74,985	1,014	1,569	231	382	4,726	660	9	32	23	14
February	67,141	676	1,010	134	313	3,386	593	8	29	21	13
March	70,395	654	832	96	371	3,435	632	9	32	24	15
April	60,899	661	827	110	347	3,334	587	8	25	23	14
May	64,737	816	817	116	475	4,123	641	10	30	24	15
June	75,178	681	903	92	481	4,082	765	9	32	24	16
July	83,223	1,085	1,466	156	480	5,108	939	10	34	25	16
August	81,984	693	979	103	495	4,251	929	10	35	24	16
September	72,704	661	831	110	452	3,862	777	9	32	23	15
October	66,359	606	801	87	408	3,535	665	9	32	24	15
November	65,902	733	744	106	309	3,127	629	10	33	23	14
December	77,283	1,016	1,174	163	378	4,245	694	9	35	26	16
Total	860,790	9,294	11,952	1,505	4,893	47,214	8,512	109	380	285	182
2014 January	83,710	4,918	4,426	1,032	446	12,607	689	9	36	23	14
February	76,350	1,294	1,552	179	376	4,905	573	7	33	20	12
March	72,320	1,469	1,759	294	439	5,718	585	8	36	24	15
April	58,747	599	782	81	313	3,028	575	7	31	23	14
May	64,097	783	678	83	384	3,464	673	9	33	23	15
June	74,579	681	743	52	409	3,521	745	9	36	23	15
July	81,631	656	920	91	369	3,514	870	10	37	25	16
August	81,210	708	977	81	369	3,610	923	10	37	25	16
8-Month Total	592,645	11,106	11,837	1,894	3,106	40,367	5,634	67	279	187	119
2013 8-Month Total	578,541	6,279	8,401	1,038	3,345	32,445	5,747	73	247	188	121
2012 8-Month Total	546,641	6,319	8,368	912	2,459	27,892	6,707	71	259	192	136

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

^b Fuel oil nos. 1, 2, and 4. For 1949–1979, 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 1949–1979, 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, waste oil, and, beginning in 2011, propane.

^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, and other manufactured and waste gases derived from fossil fuels. Through 2010, also includes propane gas.

^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.

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. • See Note 1, "Coverage of Electricity Statistics," 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.gov/totalenergy/data/monthly/#electricity> (Excel and CSV files) for all available annual data beginning in 1949 and monthly 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 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	
1950 Total	91,871	5,423	69,998	NA	NA	75,421	629	NA	5	NA	NA
1955 Total	143,759	5,412	69,862	NA	NA	75,274	1,153	NA	3	NA	NA
1960 Total	176,685	3,824	84,371	NA	NA	88,195	1,725	NA	2	NA	NA
1965 Total	244,788	4,928	110,274	NA	NA	115,203	2,321	NA	3	NA	NA
1970 Total	320,182	24,123	311,381	NA	636	338,686	3,932	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
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	5,406	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 Total	1,036,891	12,318	37,222	2,608	5,000	77,149	6,342	23	159	242	122
2009 Total	929,692	11,848	27,768	2,110	4,485	64,151	6,567	21	160	244	115
2010 Total	971,245	13,677	23,560	1,848	4,679	62,477	7,085	20	177	249	116
2011 Total	928,857	10,961	13,861	1,655	4,726	50,105	7,265	18	166	241	133
2012 January	70,305	809	965	38	389	3,759	621	2	15	20	11
February	62,572	649	735	80	307	2,997	619	2	14	19	10
March	57,053	607	848	93	168	2,388	650	2	14	20	11
April	51,427	683	778	82	157	2,328	689	2	11	20	10
May	62,417	868	803	112	200	2,784	785	2	13	21	11
June	71,251	853	1,278	121	222	3,364	852	2	15	21	12
July	86,036	926	1,547	127	244	3,821	1,052	2	16	22	12
August	82,209	726	1,099	110	257	3,222	974	2	16	22	11
September	69,074	634	807	80	241	2,726	777	1	15	20	11
October	66,104	681	868	88	220	2,735	644	1	13	21	11
November	69,521	728	769	78	229	2,722	556	1	14	21	11
December	72,791	835	795	331	226	3,092	571	2	15	22	11
Total	820,762	9,000	11,292	1,339	2,861	35,937	8,788	19	171	250	132
2013 January	74,596	987	1,497	218	323	4,317	600	2	15	20	10
February	66,767	658	963	129	284	3,171	538	1	14	17	9
March	69,973	636	801	88	305	3,052	574	2	15	20	11
April	60,534	639	801	100	281	2,943	535	2	10	20	10
May	64,318	796	785	99	403	3,696	586	2	14	21	11
June	74,740	662	871	86	412	3,677	708	2	15	21	11
July	82,750	1,053	1,419	148	410	4,669	878	2	17	22	12
August	81,553	668	949	95	426	3,842	869	3	17	20	11
September	72,293	643	807	101	387	3,486	723	2	16	20	11
October	65,968	587	776	82	356	3,226	610	2	16	20	10
November	65,509	716	718	97	279	2,925	571	3	17	20	10
December	76,857	998	1,121	150	342	3,978	633	3	18	23	12
Total	855,856	9,044	11,507	1,393	4,207	42,981	7,825	26	184	244	127
2014 January	83,248	4,833	4,219	1,013	404	12,087	631	3	19	20	10
February	75,927	1,263	1,474	167	332	4,564	521	2	18	17	9
March	71,881	1,439	1,678	279	389	5,342	529	2	19	20	11
April	58,381	578	758	77	267	2,748	524	2	15	20	10
May	63,702	766	653	76	349	3,241	621	3	16	20	11
June	74,140	665	715	45	372	3,284	693	3	19	20	11
July	81,179	634	893	85	338	3,302	813	4	19	22	11
August	80,771	687	951	69	337	3,391	867	4	19	21	11
8-Month Total	589,229	10,866	11,340	1,812	2,788	37,959	5,199	22	145	160	83
2013 8-Month Total	575,230	6,100	8,085	963	2,844	29,366	5,288	16	117	161	85
2012 8-Month Total	543,272	6,121	8,053	762	1,945	24,662	6,241	13	114	165	88

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

^b Fuel oil nos. 1, 2, and 4. For 1949–1979, 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 1949–1979, 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, waste oil, and, beginning in 2011, propane.

^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, and other manufactured and waste gases derived from fossil fuels. Through 2010, also includes propane gas.

^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.

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. • See Note 1, "Coverage of Electricity Statistics," 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.gov/totalenergy/data/monthly/#electricity> (Excel and CSV files) for all available annual data beginning in 1949 and monthly 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				
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
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 Total	369	166	33	20	5,075	3,617	520	73	179	5	39
2009 Total	317	190	34	23	4,674	3,328	520	62	160	4	42
2010 Total	314	172	39	24	8,125	2,422	555	70	172	8	55
2011 Total	347	137	47	31	5,735	2,145	572	74	182	7	57
2012 January	29	29	5	3	410	528	51	7	19	1	4
February	27	19	5	3	374	342	49	7	18	1	4
March	26	17	5	3	388	357	48	8	17	1	4
April	23	17	5	3	356	329	48	7	17	1	4
May	22	25	5	3	361	332	53	7	17	1	5
June	26	24	6	3	379	332	55	7	18	1	4
July	28	33	7	3	452	367	59	7	19	1	5
August	28	28	6	3	439	454	59	7	19	1	5
September	24	19	5	3	381	417	53	7	18	1	4
October	21	22	5	3	361	366	52	6	18	1	4
November	25	24	4	3	366	469	51	6	19	1	5
December	27	24	4	3	398	469	55	7	20	1	4
Total	307	279	63	33	4,665	4,761	633	84	219	8	54
2013 January	31	54	5	3	359	355	55	7	17	1	3
February	28	32	5	3	347	183	50	6	16	1	3
March	29	15	5	3	393	368	53	7	16	1	3
April	23	17	4	3	342	374	48	6	15	1	3
May	26	19	5	3	394	408	50	7	16	1	3
June	28	21	5	3	410	384	52	7	17	1	3
July	28	42	6	3	444	397	55	8	17	1	3
August	26	20	6	3	404	388	55	8	17	1	4
September	23	18	5	3	388	357	50	7	16	1	3
October	20	15	5	3	371	294	50	6	16	1	3
November	22	17	5	3	371	185	53	7	16	1	3
December	25	41	5	3	401	225	56	6	17	1	3
Total	309	312	60	33	4,624	3,921	628	84	195	8	37
2014 January	34	210	5	3	429	310	53	6	16	1	3
February	32	68	5	2	391	272	47	5	15	1	2
March	29	72	5	3	410	304	51	6	17	1	3
April	21	20	5	3	344	260	46	5	16	1	3
May	20	20	5	3	375	203	47	6	17	1	3
June	24	19	5	3	415	218	48	6	17	1	3
July	24	19	5	3	428	192	52	6	18	1	3
August	22	20	6	3	418	200	51	6	18	1	3
8-Month Total	206	448	40	22	3,210	1,960	395	46	133	5	24
2013 8-Month Total	219	220	40	22	3,093	2,859	419	57	130	5	24
2012 8-Month Total	209	189	45	22	3,159	3,040	422	58	144	5	36

^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, waste oil, and, beginning in 2011, propane.

^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, and other manufactured and waste gases derived from fossil fuels. Through 2010, also includes propane gas.

^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).

Notes: • Data are for fuels consumed to produce electricity. Through 1988, data are not available. • See Note 1, "Coverage of Electricity Statistics," and Note 2, "Classification of Power Plants Into Energy-Use Sectors," at end of section.

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

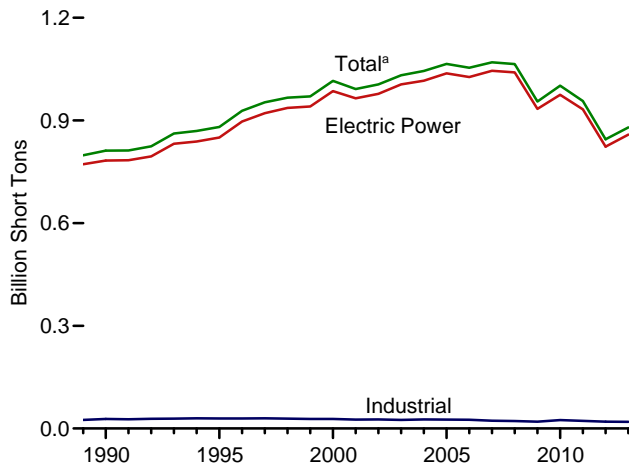
• Geographic coverage is the 50 states and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#electricity> (Excel and CSV files) for all available annual and monthly data beginning in 1989.

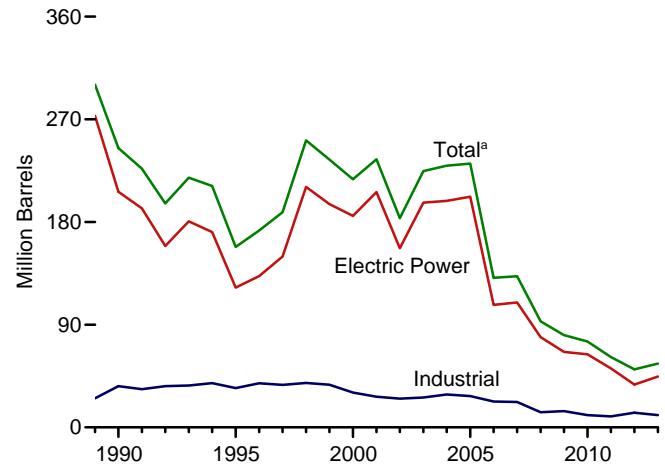
Sources: • **1989–1997:** U.S. Energy Information Administration (EIA), Form EIA-867, "Annual Nonutility Power Producer Report." • **1998–2000:** EIA, Form EIA-860B, "Annual Electric Generator Report—Nonutility." • **2001–2003:** EIA, Form EIA-906, "Power Plant Report." • **2004–2007:** EIA, Form EIA-906,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

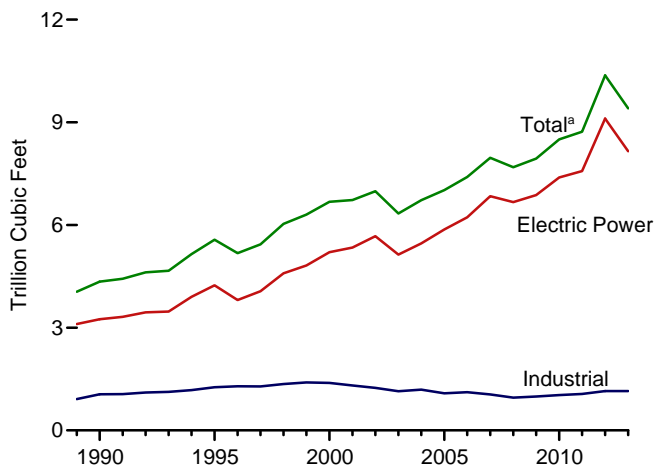
Coal by Sector, 1989–2013



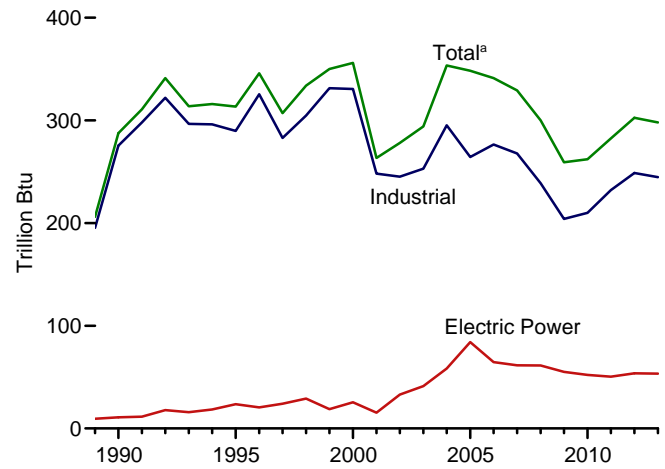
Petroleum by Sector, 1989–2013



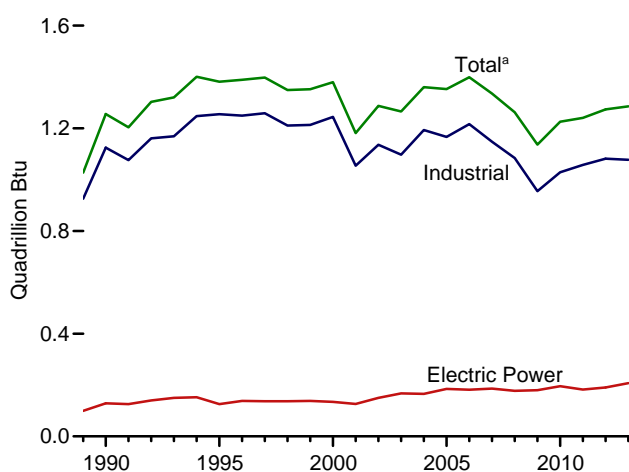
Natural Gas by Sector, 1989–2013



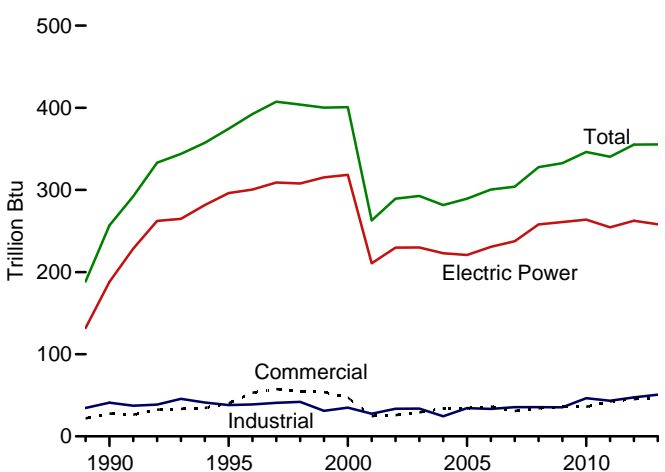
Other Gases^b by Sector, 1989–2013



Wood by Sector, 1989–2013



Waste by Sector, 1989–2013



^a Includes commercial sector.

^b Blast furnace gas, and other manufactured and waste gases derived from fossil fuels. Through 2010, also includes propane gas.

Web Page: <http://www.eia.gov/totalenergy/data/monthly/#electricity>.
Sources: Tables 7.4a–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 ⁱ
		Distillate Fuel Oil ^b	Residual Fuel Oil ^c	Other Liquids ^d	Petroleum Coke ^e	Total ^e			Wood ^h	Waste ⁱ	
1950 Total	91,871	5,423	69,998	NA	NA	75,421	629	NA	5	NA	NA
1955 Total	143,759	5,412	69,862	NA	NA	75,274	1,153	NA	3	NA	NA
1960 Total	176,685	3,824	84,371	NA	NA	88,195	1,725	NA	2	NA	NA
1965 Total	244,788	4,928	110,274	NA	NA	115,203	2,321	NA	3	NA	NA
1970 Total	320,182	24,123	311,381	NA	636	338,686	3,932	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
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 Total	1,040,580	12,547	38,241	2,670	5,119	79,056	6,668	61	177	258	131
2009 Total	933,627	12,035	28,782	2,210	4,611	66,081	6,873	55	180	261	124
2010 Total	975,052	13,790	24,503	1,877	4,777	64,055	7,387	52	196	264	124
2011 Total	932,484	11,021	14,803	1,658	4,837	51,667	7,574	50	182	255	143
2012 January	70,594	834	1,057	38	400	3,930	649	5	17	22	12
February	62,804	667	796	80	318	3,131	645	4	16	20	11
March	57,266	610	898	93	178	2,493	674	5	16	22	12
April	51,593	686	841	82	166	2,439	714	5	13	21	11
May	62,648	873	883	112	211	2,924	812	4	14	22	12
June	71,480	856	1,364	121	228	3,481	880	4	16	22	12
July	86,283	931	1,624	127	253	3,949	1,082	5	18	23	13
August	82,484	729	1,178	110	267	3,353	1,004	5	18	23	12
September	69,309	637	884	80	250	2,852	803	4	16	21	12
October	66,343	685	951	88	229	2,866	669	4	15	22	12
November	69,740	732	850	78	238	2,851	580	4	15	23	12
December	73,009	839	877	331	236	3,226	600	5	16	24	12
Total	823,551	9,080	12,203	1,339	2,974	37,495	9,111	54	190	262	143
2013 January	74,798	997	1,547	218	333	4,429	629	4	17	22	11
February	66,944	672	1,028	129	293	3,293	565	4	15	19	10
March	70,214	644	882	88	315	3,190	601	4	17	22	11
April	60,725	646	882	101	291	3,084	561	4	12	21	11
May	64,544	803	870	99	412	3,830	613	4	16	22	12
June	74,964	668	950	86	418	3,794	734	4	17	22	12
July	82,986	1,059	1,503	148	419	4,805	906	5	19	22	13
August	81,788	673	1,033	95	436	3,980	898	5	20	21	12
September	72,493	648	895	101	395	3,618	749	5	18	21	11
October	66,163	593	866	82	366	3,370	636	5	18	22	11
November	65,688	722	799	97	288	3,060	598	5	19	21	11
December	77,043	1,005	1,207	150	351	4,117	662	5	20	24	12
Total	858,351	9,131	12,464	1,394	4,317	44,572	8,153	53	207	258	136
2014 January	83,459	4,914	4,275	1,050	413	12,302	662	4	22	21	11
February	76,144	1,280	1,549	167	339	4,690	554	3	20	18	9
March	72,127	1,449	1,765	286	397	5,487	557	3	22	21	12
April	58,592	584	837	78	276	2,878	549	3	18	21	11
May	63,896	772	737	76	357	3,371	647	4	19	21	11
June	74,343	670	798	45	372	3,372	719	4	23	21	11
July	81,379	639	983	85	343	3,421	840	5	22	23	12
August	80,951	692	1,041	70	345	3,528	895	5	22	22	12
8-Month Total	590,889	11,001	11,986	1,856	2,842	39,051	5,422	33	168	168	89
2013 8-Month Total	576,964	6,163	8,696	963	2,917	30,407	5,508	35	133	171	91
2012 8-Month Total	545,151	6,188	8,641	762	2,022	25,700	6,460	37	127	172	95

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

^b Fuel oil nos. 1, 2, and 4. For 1949–1979, 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 1949–1979, 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, waste oil, and, beginning in 2011, propane.

^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, and other manufactured and waste gases derived from fossil fuels. Through 2010, also includes propane gas.

^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.

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. • See Note 1, "Coverage of Electricity Statistics," 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.gov/totalenergy/data/monthly/#electricity> (Excel and CSV files) for all available annual data beginning in 1949 and monthly 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				
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
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 Total	2,021	671	66	34	21,902	13,222	955	239	1,084	35	60
2009 Total	1,798	521	76	36	19,766	14,228	990	204	955	35	82
2010 Total	1,720	437	86	36	24,638	10,740	1,029	210	1,029	47	91
2011 Total	1,668	333	87	43	22,319	9,610	1,063	232	1,057	43	94
2012 January	155	87	9	4	2,015	1,493	94	21	94	3	7
February	135	29	9	4	1,832	979	89	21	88	4	7
March	128	31	9	4	1,684	1,047	91	22	87	5	6
April	102	19	9	4	1,481	863	90	22	83	4	6
May	108	27	9	4	1,563	873	95	22	89	3	7
June	109	28	10	4	1,553	925	98	21	88	3	7
July	120	61	12	4	1,712	1,024	107	21	92	3	7
August	120	41	11	4	1,703	1,197	105	22	93	3	7
September	107	27	9	4	1,535	1,056	96	19	91	3	6
October	101	31	9	4	1,587	1,082	94	18	91	5	7
November	124	38	8	4	1,649	1,163	93	19	92	5	7
December	141	39	8	4	1,751	1,151	98	21	96	5	7
Total	1,450	457	111	45	20,065	12,853	1,149	249	1,082	47	81
2013 January	148	86	9	4	1,728	1,208	102	21	94	5	4
February	139	54	9	4	1,601	930	91	19	84	4	4
March	136	29	9	4	1,716	976	98	21	91	4	4
April	108	26	8	4	1,533	1,005	90	20	83	4	4
May	114	30	8	4	1,577	779	93	21	87	4	3
June	105	32	8	4	1,576	779	93	20	89	4	4
July	103	61	10	4	1,656	849	97	22	98	4	4
August	105	36	10	4	1,594	816	98	21	92	4	4
September	100	33	8	4	1,545	759	91	20	87	4	4
October	98	28	8	4	1,647	894	93	20	88	4	4
November	120	30	9	4	1,679	805	97	19	90	4	4
December	134	69	10	4	1,760	988	105	20	94	5	3
Total	1,412	514	107	46	19,613	10,788	1,147	245	1,077	51	46
2014 January	149	318	10	4	1,803	1,083	101	20	88	4	4
February	147	110	9	3	1,644	714	88	18	80	4	3
March	142	117	9	4	1,759	752	96	20	87	4	3
April	111	34	8	4	1,520	611	88	18	88	4	4
May	94	32	8	4	1,553	398	86	19	90	4	4
June	90	28	9	4	1,530	456	88	20	89	4	4
July	100	29	9	4	1,594	784	92	21	93	4	4
August	92	40	10	4	1,597	795	94	20	94	4	4
8-Month Total	926	708	71	30	13,000	5,594	733	157	709	32	30
2013 8-Month Total	960	354	70	31	12,981	7,342	762	164	718	33	31
2012 8-Month Total	977	322	76	30	13,543	8,401	769	172	713	29	54

^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 syngas.

^d Distillate fuel oil, residual fuel oil, petroleum coke, jet fuel, kerosene, other petroleum, waste oil, and, beginning in 2011, propane.

^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, and other manufactured and waste gases derived from fossil fuels. Through 2010, also includes propane gas.

^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).

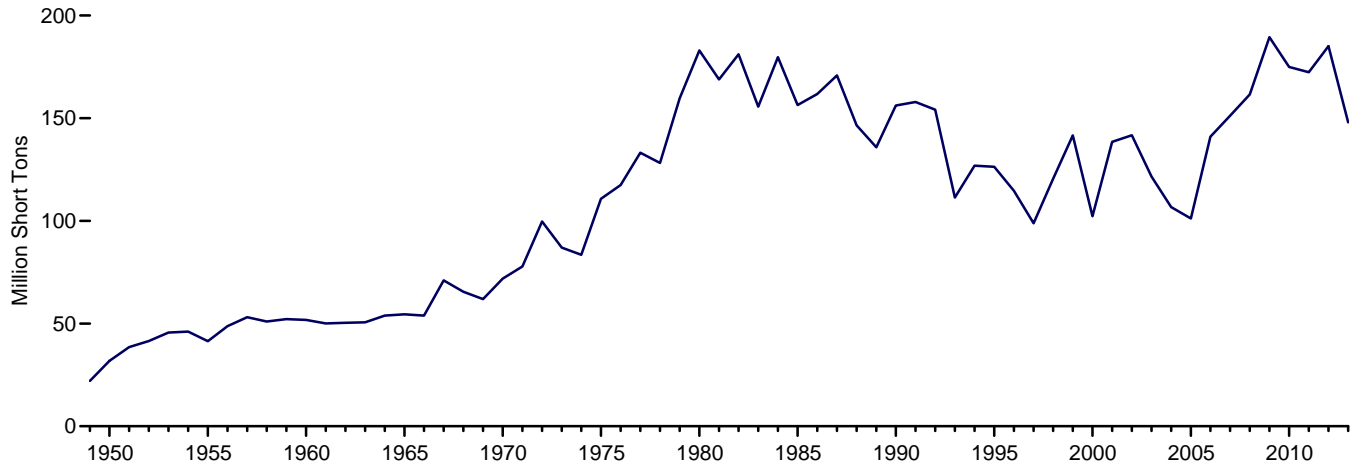
Notes: • See Note 1, "Coverage of Electricity Statistics," and Note 2, "Classification of Power Plants Into Energy-Use Sectors," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#electricity> (Excel and CSV files) for all available annual and monthly data beginning in 1989.

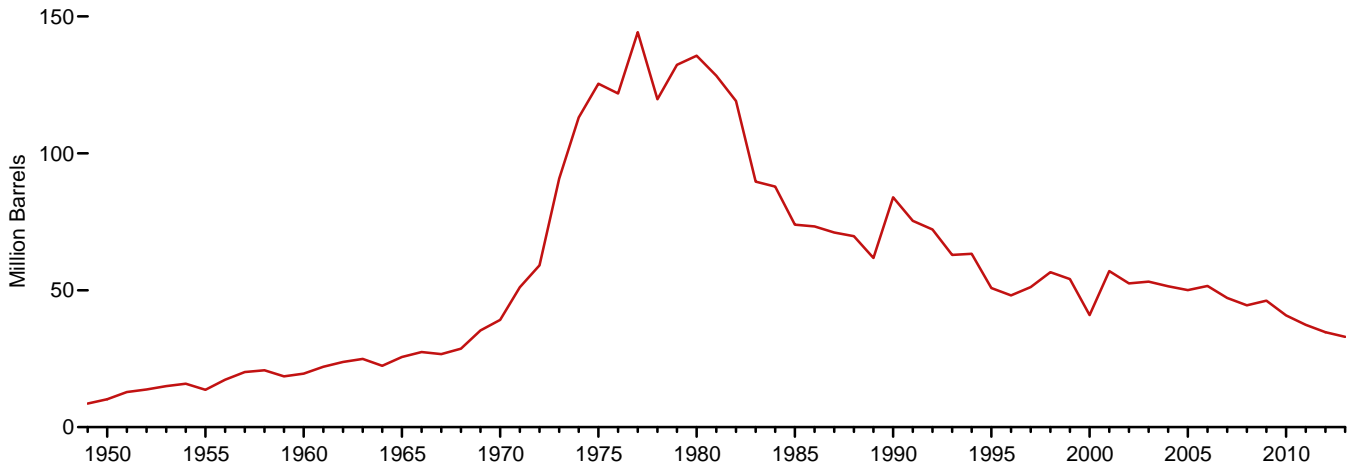
Sources: • **1989–1997:** U.S. Energy Information Administration (EIA), Form EIA-867, "Annual Nonutility Power Producer Report." • **1998–2000:** EIA, Form EIA-860B, "Annual Electric Generator Report—Nonutility." • **2001–2003:** EIA, Form EIA-906, "Power Plant Report." • **2004–2007:** EIA, Form EIA-906,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

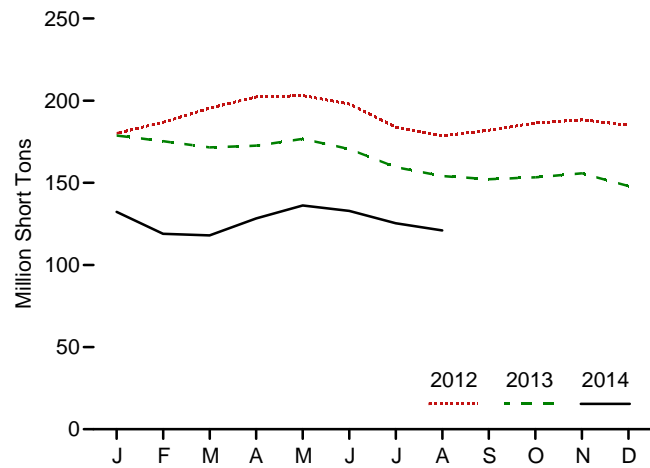
Coal, 1949–2013



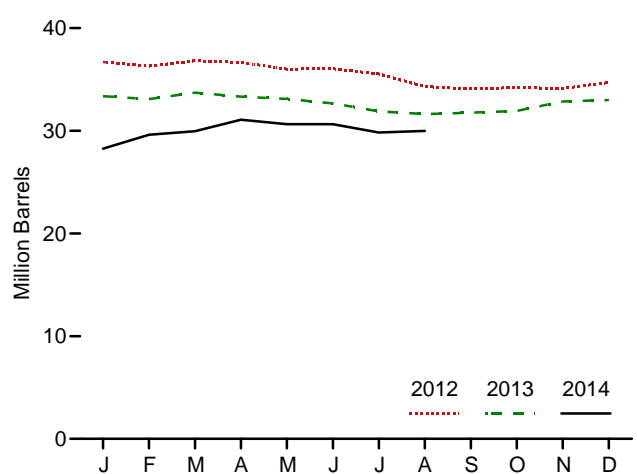
Total Petroleum, 1949–2013



Coal, Monthly



Total Petroleum, Monthly



Web Page: <http://www.eia.gov/totalenergy/data/monthly/#electricity>.
 Source: Table 7.5.

Table 7.5 Stocks of Coal and Petroleum: Electric Power Sector

	Petroleum					
	Coal ^a	Distillate Fuel Oil ^b	Residual Fuel Oil ^c	Other Liquids ^d	Petroleum Coke ^e	Total ^{e,f}
	Thousand Short Tons	Thousand Barrels			Thousand Short Tons	Thousand Barrels
1950 Year	31,842	NA	NA	NA	NA	10,201
1955 Year	41,391	NA	NA	NA	NA	13,671
1960 Year	51,735	NA	NA	NA	NA	19,572
1965 Year	54,525	NA	NA	NA	NA	25,647
1970 Year	71,908	NA	NA	NA	239	39,151
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
2000 Year ^g	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 Year	161,589	17,761	21,088	1,955	739	44,498
2009 Year	189,467	17,886	19,068	2,257	1,394	46,181
2010 Year	174,917	16,758	16,629	2,319	1,019	40,800
2011 Year	172,387	16,649	15,491	2,707	508	37,387
2012 January	180,091	16,682	15,242	2,736	409	36,704
February	186,866	16,500	15,150	2,780	374	36,300
March	195,380	16,413	15,324	2,815	453	36,817
April	202,265	16,371	15,154	2,850	457	36,661
May	203,137	16,290	14,814	2,868	406	36,002
June	197,924	16,248	14,600	2,899	458	36,038
July	183,958	16,700	13,872	2,930	406	35,534
August	178,537	16,123	13,668	2,827	336	34,302
September	182,020	16,059	13,524	2,734	353	34,081
October	186,396	16,019	13,406	2,757	406	34,212
November	188,291	16,031	13,221	2,793	416	34,126
December	185,116	16,433	12,999	2,792	495	34,698
2013 January	178,747	16,329	12,161	2,673	442	33,373
February	175,325	16,315	11,935	2,631	442	33,090
March	171,518	16,209	12,869	2,600	406	33,710
April	172,654	16,009	12,451	2,592	455	33,326
May	176,670	15,894	12,412	2,588	442	33,105
June	170,534	15,898	12,134	2,594	407	32,663
July	159,536	15,696	11,677	2,551	394	31,895
August	154,119	15,637	12,157	2,534	260	31,628
September	152,185	15,511	12,212	2,493	309	31,760
October	153,352	15,652	12,384	2,451	291	31,941
November	155,754	15,793	12,911	2,466	338	32,858
December	147,973	15,735	12,863	2,446	390	32,994
2014 January	132,324	14,605	9,923	2,242	298	28,260
February	118,949	15,384	10,623	2,278	265	29,609
March	117,974	15,436	10,538	2,241	349	29,960
April	128,321	15,707	10,527	2,272	514	31,078
May	136,218	15,447	10,609	2,308	457	30,647
June	132,885	15,616	10,698	2,290	407	30,641
July	125,389	15,487	10,284	2,151	381	29,825
August	121,042	15,430	10,475	2,138	388	29,982

^a Anthracite, bituminous coal, subbituminous coal, and lignite; excludes waste coal.

^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 Distillate fuel oil and residual fuel oil. Beginning in 1970, also includes petroleum coke. Beginning in 2002, also includes other liquids.

^g Through 1998, data are for electric utilities only. Beginning in 1999, data are for electric utilities and independent power producers.

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. • See Note 1, "Coverage of Electricity Statistics," at end of section. • Totals may not equal sum of components due to independent rounding.

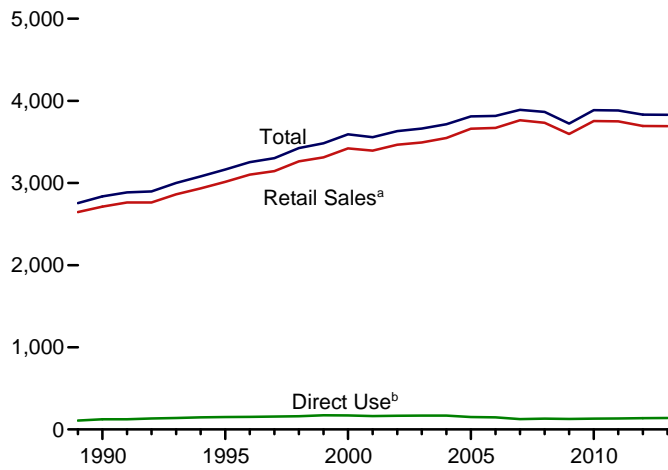
• Geographic coverage is the 50 states and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#electricity> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.

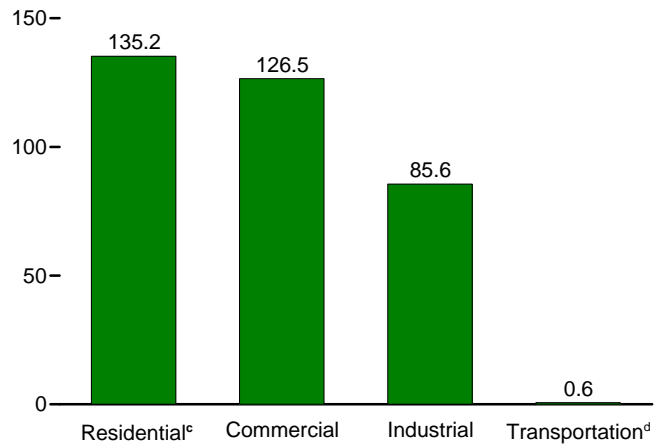
Sources: • **1949–September 1977:** Federal Power Commission, Form FPC-4, "Monthly Power Plant Report." • **October 1977–1981:** Federal Energy Regulatory Commission, Form FPC-4, "Monthly Power Plant Report." • **1982–1988:** U.S. Energy Information Administration (EIA), Form EIA-759, "Monthly Power 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."

Figure 7.6 Electricity End Use
(Billion Kilowatthours)

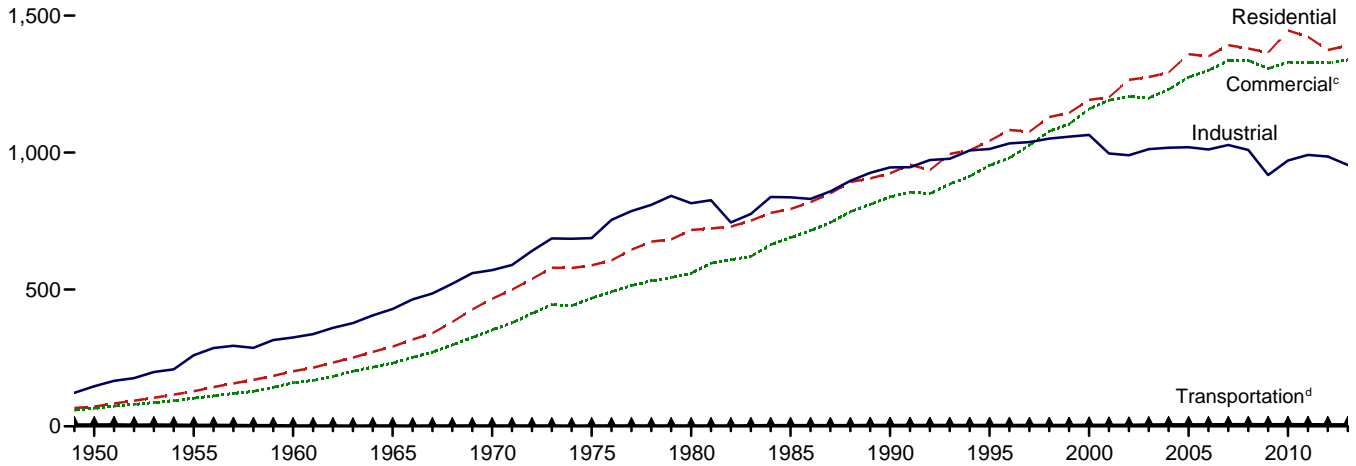
Electricity End Use Overview, 1989–2013



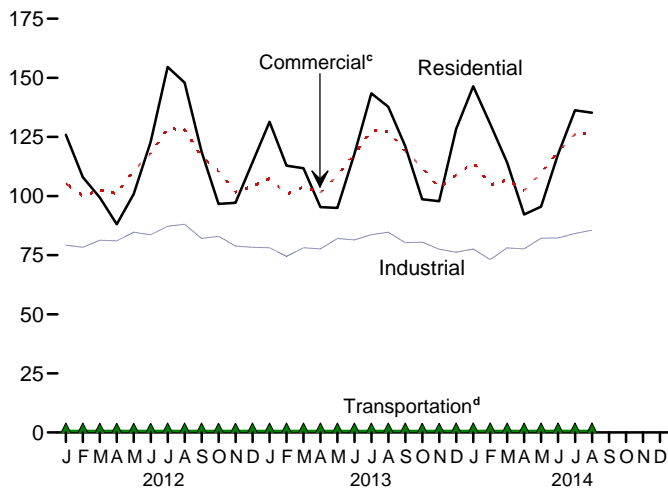
Retail Sales^a by Sector, August 2014



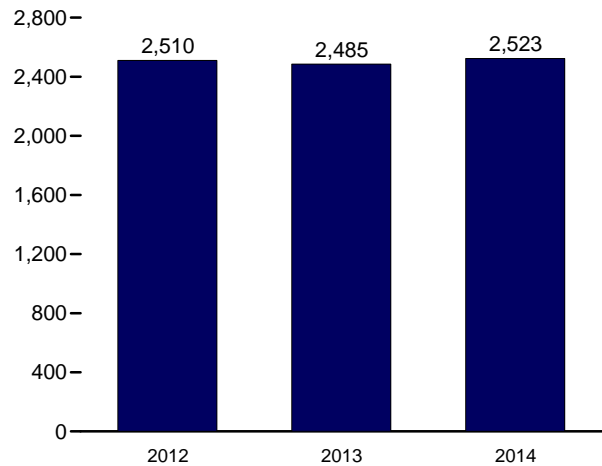
Retail Sales^a by Sector, 1949–2013



Retail Sales^a by Sector, Monthly



Retail Sales^a Total, January–August



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

^b See “Direct Use” in Glossary.

^c Commercial sector, including public street and highway lighting, inte-

departmental sales, and other sales to public authorities.

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

Web Page: <http://www.eia.gov/totalenergy/data/monthly/#electricity>.

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
1950 Total	72,200	E 65,971	146,479	E 6,793	291,443	NA	291,443	50,637	22,127
1955 Total	128,401	E 102,547	259,974	E 5,826	496,748	NA	496,748	79,389	28,984
1960 Total	201,463	E 159,144	324,402	E 3,066	688,075	NA	688,075	130,702	31,508
1965 Total	291,013	E 231,126	428,727	E 2,923	953,789	NA	953,789	200,470	33,580
1970 Total	466,291	E 352,041	570,854	E 3,115	1,392,300	NA	1,392,300	306,703	48,452
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
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	125,670	3,890,231	--	--
2008 Total	1,379,981	1,335,981	1,009,300	7,700	3,732,962	132,197	3,865,159	--	--
2009 Total	1,364,474	1,307,168	917,442	7,781	3,596,865	126,938	3,723,803	--	--
2010 Total	1,445,708	1,330,199	970,873	7,712	3,754,493	131,910	3,886,403	--	--
2011 Total	1,422,801	1,328,057	991,316	7,672	3,749,846	132,754	3,882,600	--	--
2012 January	125,881	105,239	79,205	650	310,975	E 11,668	322,643	--	--
February	107,975	100,080	78,298	629	286,983	E 11,018	298,001	--	--
March	99,362	102,474	81,298	597	283,731	E 11,013	294,744	--	--
April	88,103	101,037	81,030	590	270,760	E 10,535	281,294	--	--
May	100,895	110,800	84,678	595	296,968	E 11,297	308,266	--	--
June	122,934	118,009	83,619	597	325,160	E 11,427	336,586	--	--
July	154,579	128,535	87,219	629	370,963	E 12,528	383,490	--	--
August	147,941	128,106	88,105	633	364,785	E 12,423	377,208	--	--
September	118,831	116,585	82,060	613	318,090	E 11,368	329,457	--	--
October	96,669	110,471	82,996	599	290,735	E 11,146	301,882	--	--
November	97,155	101,641	78,847	569	278,212	E 11,306	289,518	--	--
December	114,188	104,122	78,360	619	297,288	E 11,927	309,216	--	--
Total	1,374,515	1,327,101	985,714	7,320	3,694,650	E 137,657	3,832,306	--	--
2013 January	131,354	107,400	78,141	656	317,551	E 12,046	329,597	--	--
February	112,857	100,722	74,453	649	288,681	E 10,997	299,678	--	--
March	111,784	103,839	78,097	633	294,352	E 11,844	306,196	--	--
April	95,297	101,385	77,633	623	274,937	E 10,548	285,484	--	--
May	94,978	108,883	82,086	619	286,566	E 11,414	297,980	--	--
June	117,708	117,670	81,411	629	317,418	E 11,591	329,010	--	--
July	143,438	127,735	83,703	637	355,513	E 12,406	367,919	--	--
August	137,734	127,369	84,701	634	350,437	E 12,160	362,598	--	--
September	121,114	118,977	80,298	631	321,020	E 11,347	332,367	--	--
October	98,656	112,171	80,463	589	291,879	E 11,262	303,141	--	--
November	97,812	103,449	77,536	562	279,359	E 11,504	290,863	--	--
December	128,357	108,849	76,205	665	314,076	E 12,294	326,369	--	--
Total	1,391,090	1,338,448	954,725	7,525	3,691,789	E 139,414	3,831,203	--	--
2014 January	146,435	114,230	77,616	724	339,006	E 12,095	351,100	--	--
February	130,478	104,662	73,135	723	308,997	E 10,589	319,586	--	--
March	114,158	106,873	78,081	645	299,756	E 11,387	311,143	--	--
April	92,188	102,403	77,638	634	272,863	E 10,471	283,334	--	--
May	95,507	109,713	82,174	655	288,049	E 10,599	298,648	--	--
June	117,630	118,776	82,282	615	319,302	E 11,023	330,325	--	--
July	136,239	126,080	84,179	653	347,151	E 11,848	358,998	--	--
August	135,247	126,527	85,597	642	348,014	E 11,749	359,762	--	--
8-Month Total	967,881	909,264	640,702	5,291	2,523,138	E 89,760	2,612,898	--	--
2013 8-Month Total	945,150	895,002	640,224	5,078	2,485,455	E 93,007	2,578,462	--	--
2012 8-Month Total	947,671	894,282	663,451	4,920	2,510,325	E 91,908	2,602,233	--	--

^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: • See Note 1, "Coverage of Electricity Statistics," 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.gov/totalenergy/data/monthly/#electricity> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.

Sources: See end of section.

Electricity

Note 1. Coverage of Electricity Statistics. Through 1984, data for electric utilities also include institutions (such as universities) and military facilities that generated electricity primarily for their own use; beginning in 1985, data for electric utilities exclude institutions and military facilities. Data for independent power producers, commercial plants, and industrial plants include plants with a generator nameplate capacity of one megawatt or greater; they exclude plants with a generator nameplate capacity less than one megawatt. Also excluded from the electricity statistics in Section 7 are data for residential and commercial self-generation from solar energy, except for the small amount sold to the grid and included in data for the electric power sector.

Note 2. 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.gov/survey/form/eia_860/instructions.pdf.

Table 7.1 Sources

Net Generation, Electric Power Sector

1949 forward: Table 7.2b.

Net Generation, Commercial and Industrial Sectors

1949 forward: Table 7.2c.

Trade

1949–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.”

1990–2000: National Energy Board of Canada; and DOE, Office of Electricity Delivery and Energy Reliability, Form FE-781R, “Annual Report of International Electrical Export/Import Data.”

2001–May 2011: National Energy Board of Canada; DOE, Office of Electricity Delivery and Energy Reliability, Form OE-781R, “Monthly Electricity Imports and Exports Report,” and predecessor form; and California Independent System Operator.

June 2011 forward: National Energy Board of Canada; California Independent System Operator; and EIA estimates for Texas transfers.

T&D Losses and Unaccounted for

1949 forward: Calculated as the sum of total net generation and imports minus end use and exports.

End Use

1949 forward: Table 7.6.

Table 7.2b Sources

1949–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, 1949–1988

1949–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

1949–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

1949–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

1949–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.”

1984–2003: EIA, Form EIA-861, “Annual Electric Utility Report.”

2004 forward: EIA, *Electric Power Monthly (EPM)*, October 2014, Table 5.1.

Retail Sales, Commercial

1949–2002: Estimated by EIA as the sum of “Commercial (Old)” and the non-transportation portion of “Other (Old).”

See estimation methodology at

http://www.eia.gov/state/seds/sep_use/notes/use_elec.pdf.

2003: EIA, Form EIA-861, “Annual Electric Utility Report.”

2004 forward: EIA, EPM, October 2014, Table 5.1.

Retail Sales, Transportation

1949–2002: Estimated by EIA as the transportation portion of “Other (Old).” See estimation methodology at

http://www.eia.gov/state/seds/sep_use/notes/use_elec.pdf.

2003: EIA, Form EIA-861, “Annual Electric Utility Report.”

2004 forward: EIA, EPM, October 2014, Table 5.1.

Direct Use, Annual

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

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

2001–2012: EIA, *Electric Power Annual 2012*, December 2013, Table 2.2.

2013: Sum of monthly estimates.

Direct Use, Monthly

1989 forward: 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 2013 and 2014, the 2012 annual share is used.

Discontinued Retail Sales Series Commercial (Old) and Other (Old)

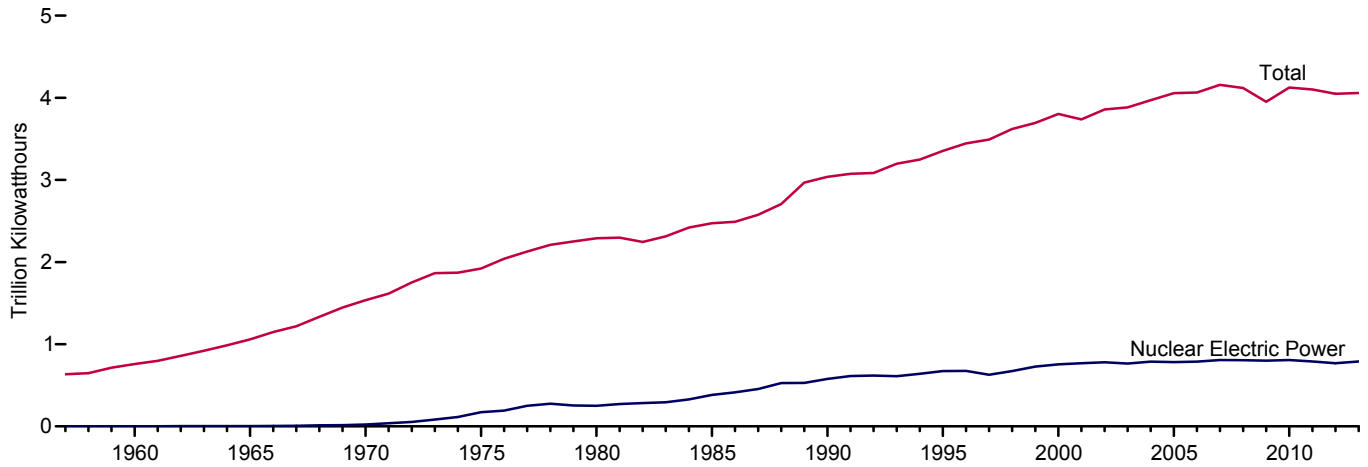
1949–2002: See sources for “Residential” and “Industrial.”

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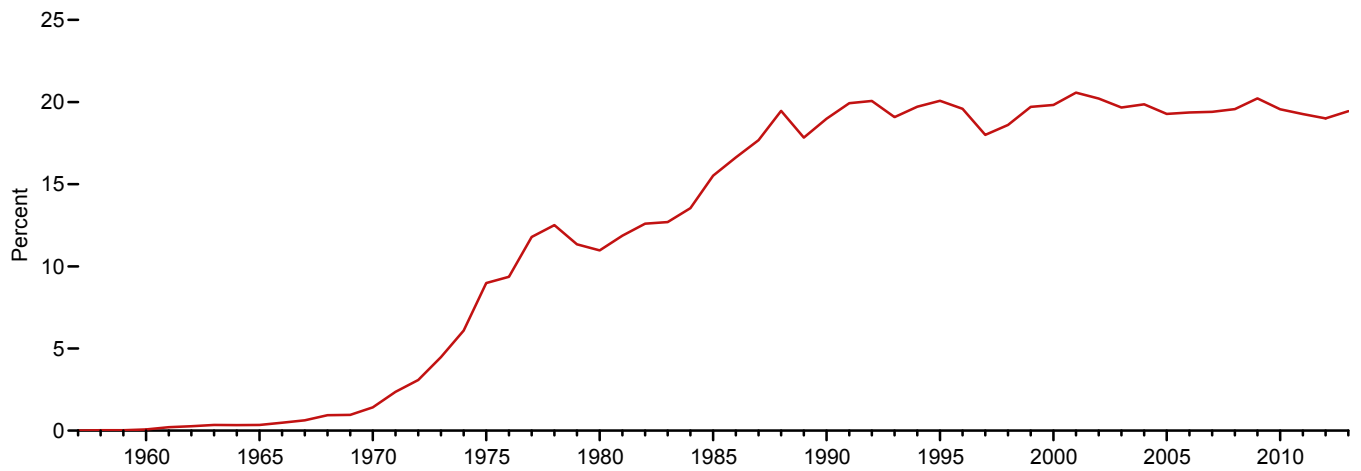
8. Nuclear Energy

Figure 8.1 Nuclear Energy Overview

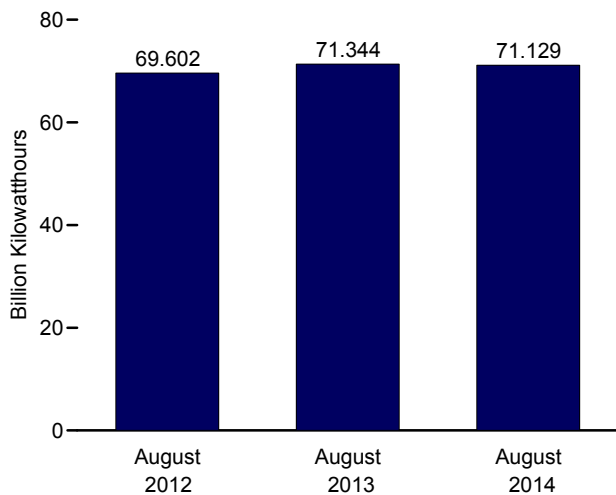
Electricity Net Generation, 1957–2013



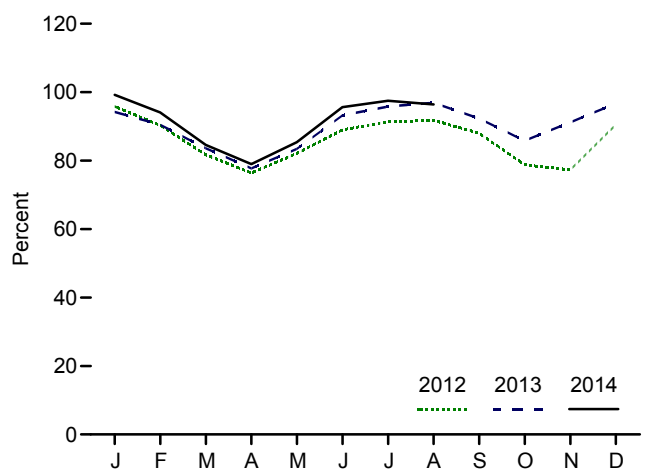
Nuclear Share of Electricity Net Generation, 1957–2013



Nuclear Electricity Net Generation



Capacity Factor, Monthly



Web Page: <http://www.eia.gov/totalenergy/data/monthly/#nuclear>.
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	
1957 Total	1	0.055	10	(s)	NA
1960 Total	3	.411	518	.1	NA
1965 Total	13	.793	3,657	.3	NA
1970 Total	20	7.004	21,804	1.4	NA
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
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 Total	104	100.755	806,208	19.6	91.1
2009 Total	104	101.004	798,855	20.2	90.3
2010 Total	104	101.167	806,968	19.6	91.1
2011 Total	104	^c101.419	790,204	19.3	89.1
2012 January	104	101.602	72,381	21.3	95.8
February	104	101.602	63,847	20.6	90.3
March	104	101.602	61,729	20.0	81.7
April	104	101.602	55,871	18.9	76.4
May	104	101.625	62,081	18.4	82.1
June	104	101.625	65,140	18.1	89.0
July	104	101.747	69,129	16.7	91.3
August	104	101.856	69,602	17.6	91.8
September	104	101.856	64,511	19.3	88.0
October	104	101.856	59,743	19.2	78.8
November	104	101.885	56,713	18.5	77.3
December	104	101.885	68,584	20.5	90.5
Total	104	101.885	769,331	19.0	86.1
2013 January	104	^E 101.923	71,406	20.5	^E 94.2
February	103	^E 101.063	61,483	19.9	^E 90.5
March	103	^E 101.172	62,947	19.4	^E 83.6
April	103	^E 101.468	56,767	19.0	^E 77.7
May	102	^E 101.147	62,848	19.5	^E 83.4
June	100	^E 98.997	66,430	18.6	^E 93.2
July	100	^E 98.997	70,539	17.9	^E 95.8
August	100	^E 98.997	71,344	18.6	^E 96.9
September	100	^E 98.997	65,799	19.3	^E 92.3
October	100	^E 98.997	63,184	20.1	^E 85.8
November	100	^E 98.997	64,975	20.7	^E 91.2
December	100	^E 99.105	71,294	20.2	^E 96.7
Total	100	^E 99.105	789,017	19.4	^E 90.1
2014 January	100	^E 98.957	73,064	19.4	^E 99.2
February	100	^E 98.977	62,639	19.4	^E 94.1
March	100	^E 98.977	62,397	18.8	^E 84.6
April	100	^E 98.977	56,385	19.0	^E 79.0
May	100	^E 98.977	62,947	19.4	^E 85.4
June	100	^E 98.977	68,138	19.1	^E 95.6
July	100	^E 99.189	71,940	18.7	^E 97.5
August	100	^E 99.180	71,129	18.5	^E 96.4
8-Month Total	100	^E 99.180	528,639	19.0	^E 91.5
2013 8-Month Total	100	^E 98.997	523,765	19.1	^E 89.4
2012 8-Month Total	104	101.856	519,781	18.8	87.3

^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.

^b At end of period.

^c For the definition of "Net Summer Capacity," see Note 2, "Nuclear Capacity," at end of section. Beginning in 2011, monthly capacity values are estimated in two steps: 1) updates and derates reported on Form EIA-860M are added to specific months; and 2) the difference between the resulting year-end capacity (from data reported on Form EIA-860M) and final capacity (reported on Form EIA-860) is allocated to the month of January.

^d Beginning in 2008, capacity factor data are calculated using a new

methodology. For an explanation of the method of calculating the capacity factor, see Note 2, "Nuclear Capacity," at end of section.

^E=Estimate. NA=Not available. (s)=Less than 0.05.

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.gov/totalenergy/data/monthly/#nuclear> (Excel and CSV files) for all available annual data beginning in 1957 and monthly 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.

The following nuclear generating units were retired in 2013: Crystal River 3 in February; Kewaunee in May; and San Onofre 2 and 3 in June.

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.

Through 2007, 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). For the methodology used to calculate capacity factors beginning in 2008, see U.S. Energy Information Administration, *Electric Power Monthly*, Appendix C notes on “Average Capacity Factors.”

Table 8.1 Sources

Total Operable Units and Net Summer Capacity of Operable Units

1957–1982: 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 predecessor forms; Form EIA-860M, “Monthly Update to the Annual Electric Generator Report”; and monthly updates as appropriate. For a list of operable units as of November 2011, see http://www.eia.gov/nuclear/reactors/stats_table1.html.

Nuclear Electricity Net Generation and Nuclear Share of Electricity Net Generation

1957 forward: Table 7.2a.

Capacity Factor

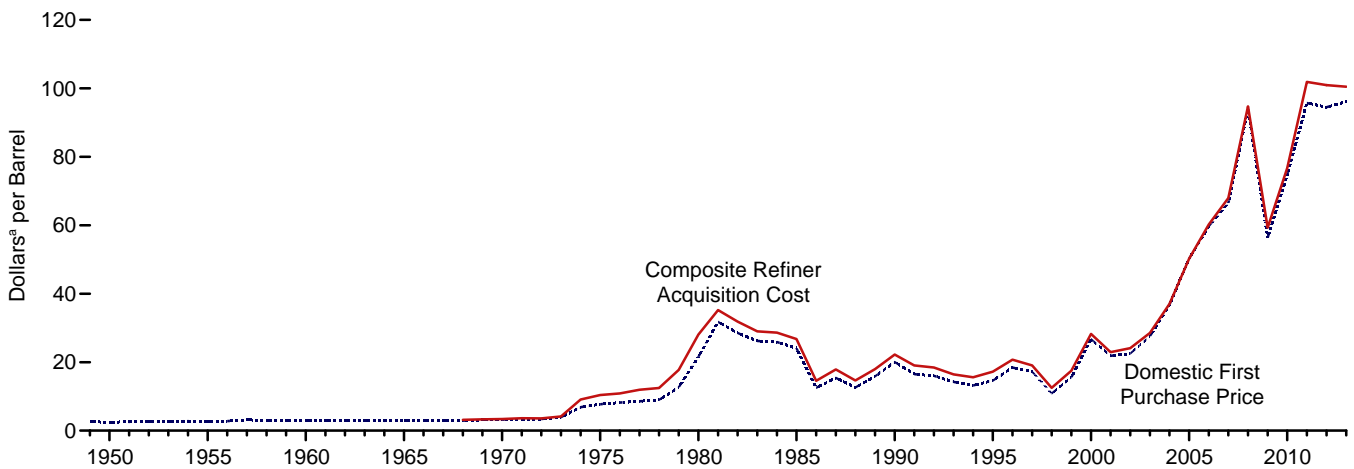
1973–2007: Calculated by EIA using the method described above in Note 2.

2008 forward: EIA, Form EIA-860, “Annual Electric Generator Report”; Form EIA-860M, “Monthly Update to the Annual Electric Generator Report”; and Form EIA-923, “Power Plant Operations Report.”

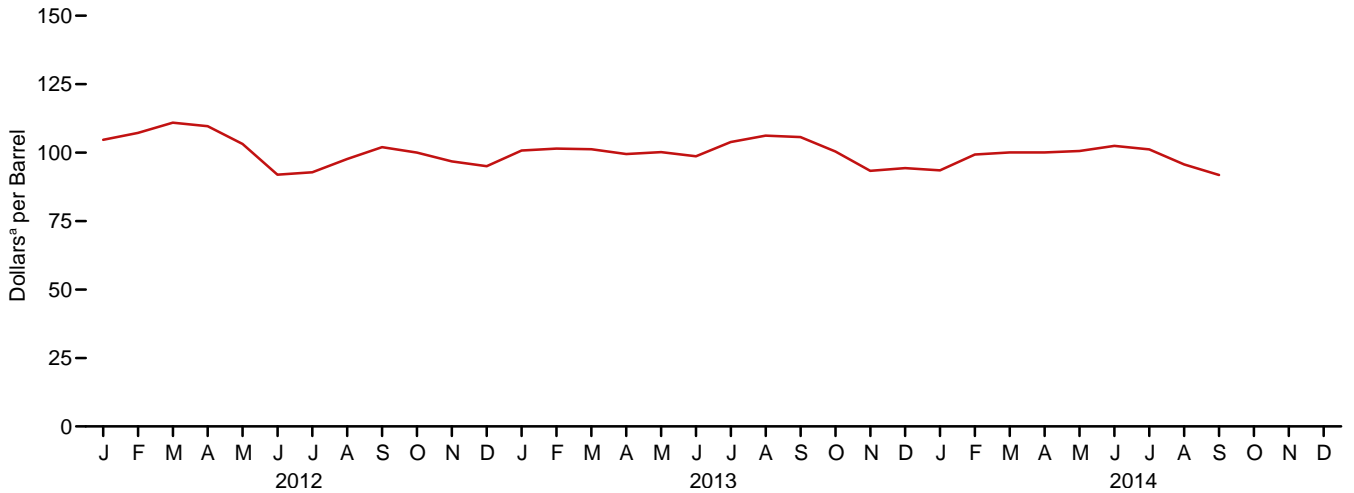
9. Energy Prices

Figure 9.1 Petroleum Prices

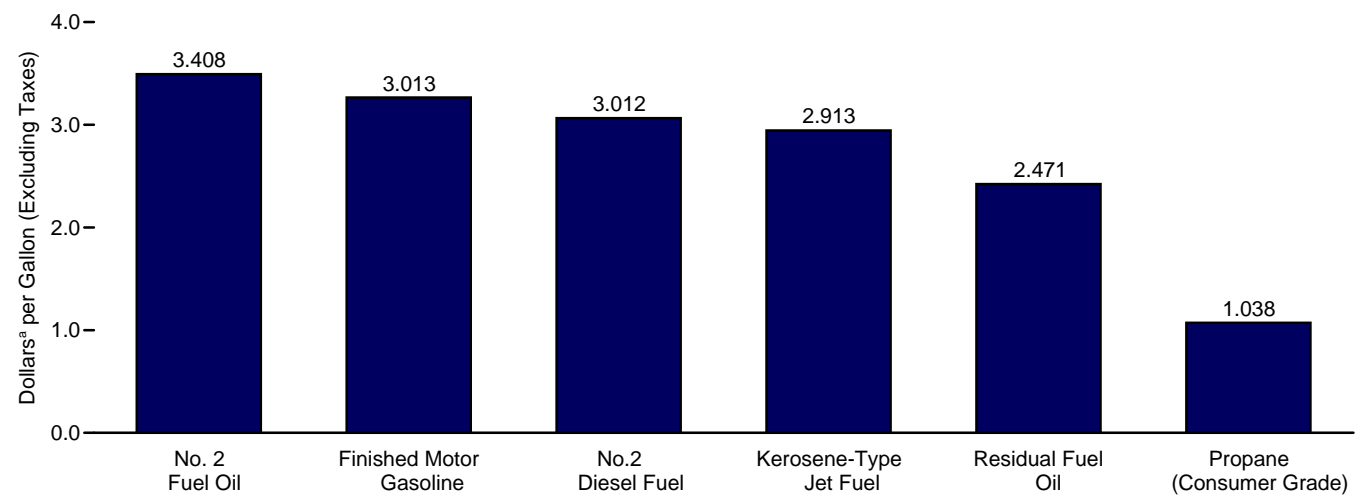
Crude Oil Prices, 1949–2013



Composite Refiner Acquisition Cost, Monthly



Refiner Prices to End Users: Selected Products, August 2014



^a Prices are not adjusted for inflation. See "Nominal Dollars" in Glossary.
 Web Page: <http://www.eia.gov/totalenergy/data/monthly/#prices>.
 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
1950 Average	2.51	NA	NA	NA	NA	NA
1955 Average	2.77	NA	NA	NA	NA	NA
1960 Average	2.88	NA	NA	NA	NA	NA
1965 Average	2.86	NA	NA	NA	NA	NA
1970 Average	3.18	NA	NA	^E 3.46	^E 2.96	^E 3.40
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
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 Average	94.04	90.32	93.33	98.47	92.77	94.74
2009 Average	56.35	57.78	60.23	59.49	59.17	59.29
2010 Average	74.71	74.10	76.50	78.01	75.86	76.69
2011 Average	95.73	101.66	102.92	100.71	102.63	101.87
2012 January	98.99	103.96	105.27	103.97	105.25	104.71
February	102.04	108.56	109.23	105.93	108.08	107.18
March	105.42	110.65	110.62	110.80	111.00	110.92
April	103.62	107.17	107.55	111.22	108.54	109.68
May	95.57	100.79	101.56	103.04	103.26	103.17
June	83.59	87.89	91.90	91.66	92.18	91.96
July	86.10	92.50	93.68	92.64	92.99	92.84
August	92.53	99.63	98.70	98.58	97.04	97.70
September	95.98	101.03	101.34	102.17	101.82	101.97
October	92.24	97.75	99.22	99.07	100.92	100.02
November	89.64	91.86	96.20	95.28	98.07	96.78
December	89.81	92.69	95.01	96.56	93.70	95.06
Average	94.52	99.78	101.00	100.72	101.09	100.93
2013 January	95.00	94.93	95.12	103.78	97.91	100.78
February	95.01	100.46	98.93	103.75	99.23	101.45
March	95.54	99.73	98.35	103.45	99.11	101.23
April	94.41	95.59	95.75	102.53	96.45	99.50
May	94.75	96.12	97.39	101.98	98.50	100.17
June	93.82	96.22	96.90	100.26	97.17	98.67
July	101.41	101.36	101.19	106.19	101.56	103.85
August	102.96	101.89	103.13	108.30	104.16	106.20
September	102.32	100.82	101.59	107.96	103.49	105.70
October	96.18	92.81	94.89	103.00	97.84	100.41
November	88.70	88.30	89.45	96.09	90.36	93.32
December	91.85	89.90	90.07	97.87	90.57	94.32
Average	95.99	96.56	96.99	102.91	98.11	100.49
2014 January	89.59	90.93	90.97	97.17	89.63	93.52
February	96.89	92.76	95.38	102.33	96.04	99.32
March	96.18	93.06	95.54	102.61	97.04	100.05
April	96.47	94.18	96.47	102.42	97.30	100.07
May	95.69	96.17	98.00	102.36	98.44	100.57
June	98.70	^R 97.57	^R 99.27	104.18	100.17	102.45
July	^R 96.67	^R 93.83	^R 96.71	^R 103.20	^R 98.66	101.18
August	^R 90.66	^R 90.90	^R 92.06	^R 97.75	^R 93.24	^R 95.70
September	NA	NA	NA	^E 93.75	^E 89.92	^E 91.85

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

^b See Note 1, "Crude Oil Refinery Acquisition Costs," at end of section.

^c See Note 2, "Crude Oil Domestic First Purchase Prices," at end of section.

^d See Note 3, "Crude Oil F.O.B. Costs," at end of section.

^e See Note 4, "Crude Oil Landed Costs," at end of section.

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

Notes: • Domestic first purchase prices and refinery acquisition costs for the current two months are preliminary. F.O.B. and landed costs for the current three months are preliminary. • Through 1980, F.O.B. and landed costs reflect the

period of reporting; beginning in 1981, they 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.gov/totalenergy/data/monthly/#prices> (Excel and CSV files) for all available annual data beginning in 1949 and monthly 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
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 Average	95.66	91.17	84.61	102.06	93.03	96.33	88.06	91.44	93.15	87.15
2009 Average	57.07	57.90	56.47	64.61	57.87	65.63	55.58	55.53	58.53	57.16
2010 Average	78.18	72.56	72.46	80.83	76.44	W	70.30	75.65	75.23	73.24
2011 Average	111.82	100.21	100.90	115.35	107.08	—	97.23	106.47	105.34	98.49
2012										
January	111.10	106.69	107.79	114.12	W	—	105.08	107.51	107.51	101.40
February	121.45	114.47	110.14	124.31	W	—	110.37	111.12	113.85	103.42
March	W	118.46	114.81	128.10	W	—	112.76	118.06	117.06	104.65
April	118.84	114.06	110.54	W	W	—	109.33	115.02	113.85	101.42
May	110.79	101.27	103.12	110.79	W	—	101.45	105.16	105.28	96.74
June	95.65	91.81	90.60	98.96	91.90	—	87.64	90.55	90.63	85.28
July	W	96.83	95.03	103.86	W	—	93.81	95.47	96.30	88.46
August	W	106.16	101.12	114.62	W	—	99.94	104.87	104.18	95.13
September	112.75	108.59	102.49	111.74	107.14	—	101.00	105.58	105.05	97.52
October	W	105.77	98.98	W	W	—	98.10	102.70	101.29	95.05
November	W	103.75	93.45	—	W	—	93.15	101.91	95.94	89.37
December	—	101.24	94.19	W	W	—	92.99	102.93	98.04	87.64
Average	111.23	106.43	101.84	114.51	106.65	—	100.15	105.45	104.39	95.71
2013										
January	W	106.99	100.16	W	W	—	97.15	105.30	102.42	91.11
February	W	106.45	108.25	W	W	—	104.06	105.22	106.93	96.65
March	W	101.31	105.16	111.03	W	—	101.60	108.10	105.77	94.09
April	W	99.58	99.94	W	W	—	95.01	100.50	98.68	93.14
May	103.46	98.97	99.06	106.45	W	—	95.48	98.46	98.72	93.99
June	103.67	98.56	97.16	W	W	—	95.71	97.42	98.45	94.59
July	W	102.20	101.27	W	W	W	100.32	101.21	102.36	100.54
August	W	105.59	100.97	111.28	W	—	101.12	104.10	103.69	100.42
September	113.86	103.16	100.14	W	103.53	W	100.37	103.22	104.44	98.42
October	—	W	93.76	—	98.96	—	95.72	98.48	97.38	89.45
November	W	W	88.56	W	91.38	—	91.79	92.02	93.23	84.76
December	W	95.50	90.25	—	95.97	—	92.46	94.88	94.41	87.24
Average	107.71	101.24	98.40	110.06	101.16	W	97.52	100.62	100.57	93.67
2014										
January	W	95.84	89.30	—	99.21	—	89.69	98.44	94.86	87.56
February	W	96.04	91.77	—	102.26	—	92.88	100.70	97.51	89.73
March	W	W	91.38	W	101.25	—	92.27	100.67	97.19	90.59
April	W	98.61	93.22	W	99.76	—	95.49	99.02	99.30	90.49
May	W	98.75	95.35	—	100.58	—	96.67	98.89	98.29	94.59
June	W	99.03	98.20	—	^R 104.95	—	98.19	^R 102.49	^R 100.67	^R 95.67
July	W	^R 100.11	^R 94.65	—	^R 105.23	—	^R 92.49	^R 103.77	^R 97.39	^R 91.46
August	W	91.57	91.27	—	99.71	—	89.23	98.96	93.62	88.73

^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. (Free on Board)" in Glossary, and Note 3, "Crude Oil F.O.B. Costs," at end of section. • Values for the current two months are preliminary. • Through 1980, prices reflect the period of reporting; beginning in 1981, prices 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.gov/totalenergy/data/monthly/#prices> (Excel and CSV files) for all available annual and monthly data beginning in 1973.

Sources: See end of section.

Table 9.4 Retail Motor Gasoline and On-Highway Diesel Fuel Prices
(Dollars^a per Gallon, Including Taxes)

	Platt's / Bureau of Labor Statistics Data				U.S. Energy Information Administration Data			
	Motor Gasoline by Grade				Regular Motor Gasoline by Area Type			On-Highway Diesel Fuel
	Leaded Regular	Unleaded Regular	Unleaded Premium ^b	All Grades ^c	Conventional Gasoline Areas ^d	Reformulated Gasoline Areas ^e	All Areas	
1950 Average	0.268	NA	NA	NA	--	--	--	--
1955 Average	.291	NA	NA	NA	--	--	--	--
1960 Average	.311	NA	NA	NA	--	--	--	--
1965 Average	.312	NA	NA	NA	--	--	--	--
1970 Average	.357	NA	NA	NA	--	--	--	--
1975 Average	.567	NA	NA	NA	--	--	--	--
1980 Average	1.191	1.245	NA	1.221	--	--	--	--
1985 Average	1.115	1.202	1.340	1.196	--	--	--	--
1990 Average	1.149	1.164	1.349	1.217	NA	NA	NA	NA
1995 Average	--	1.147	1.336	1.205	1.103	1.163	1.111	1.109
2000 Average	--	1.510	1.693	1.563	1.462	1.543	1.484	1.491
2001 Average	--	1.461	1.657	1.531	1.384	1.498	1.420	1.401
2002 Average	--	1.358	1.556	1.441	1.313	1.408	1.345	1.319
2003 Average	--	1.591	1.777	1.638	1.516	1.655	1.561	1.509
2004 Average	--	1.880	2.068	1.923	1.812	1.937	1.852	1.810
2005 Average	--	2.295	2.491	2.338	2.240	2.335	2.270	2.402
2006 Average	--	2.589	2.805	2.635	2.533	2.654	2.572	2.705
2007 Average	--	2.801	3.033	2.849	2.767	2.857	2.796	2.885
2008 Average	--	3.266	3.519	3.317	3.213	3.314	3.246	3.803
2009 Average	--	2.350	2.607	2.401	2.315	2.433	2.353	2.467
2010 Average	--	2.788	3.047	2.836	2.742	2.864	2.782	2.992
2011 Average	--	3.527	3.792	3.577	3.476	3.616	3.521	3.840
2012 January	--	3.399	3.663	3.447	3.330	3.486	3.380	3.833
February	--	3.572	3.840	3.622	3.517	3.711	3.579	3.953
March	--	3.868	4.138	3.918	3.774	4.017	3.852	4.127
April	--	3.927	4.194	3.976	3.837	4.032	3.900	4.115
May	--	3.792	4.062	3.839	3.643	3.919	3.732	3.979
June	--	3.552	3.825	3.602	3.465	3.695	3.539	3.759
July	--	3.451	3.726	3.502	3.379	3.565	3.439	3.721
August	--	3.707	3.991	3.759	3.668	3.834	3.722	3.983
September	--	3.856	4.140	3.908	3.801	3.949	3.849	4.120
October	--	3.786	4.079	3.839	3.653	3.939	3.746	4.094
November	--	3.488	3.782	3.542	3.380	3.603	3.452	4.000
December	--	3.331	3.626	3.386	3.256	3.424	3.310	3.961
Average	--	3.644	3.922	3.695	3.552	3.757	3.618	3.968
2013 January	--	3.351	3.646	3.407	3.255	3.452	3.319	3.909
February	--	3.693	3.990	3.748	3.605	3.807	3.670	4.111
March	--	3.735	4.038	3.792	3.648	3.845	3.711	4.068
April	--	3.590	3.901	3.647	3.501	3.714	3.570	3.930
May	--	3.623	3.936	3.682	3.565	3.720	3.615	3.870
June	--	3.633	3.957	3.693	3.576	3.731	3.626	3.849
July	--	3.628	3.951	3.687	3.515	3.751	3.591	3.866
August	--	3.600	3.919	3.658	3.515	3.697	3.574	3.905
September	--	3.556	3.881	3.616	3.474	3.656	3.532	3.961
October	--	3.375	3.702	3.434	3.285	3.468	3.344	3.885
November	--	3.251	3.585	3.310	3.186	3.362	3.243	3.839
December	--	3.277	3.604	3.333	3.209	3.418	3.276	3.882
Average	--	3.526	3.843	3.584	3.443	3.635	3.505	3.922
2014 January	--	3.320	3.651	3.378	3.252	3.438	3.313	3.893
February	--	3.364	3.694	3.422	3.305	3.464	3.356	3.984
March	--	3.532	3.858	3.590	3.474	3.658	3.533	4.001
April	--	3.659	3.986	3.717	3.590	3.809	3.661	3.964
May	--	3.691	4.020	3.745	3.601	3.824	3.673	3.943
June	--	3.695	4.027	3.750	3.626	3.831	3.692	3.906
July	--	3.633	3.976	3.690	3.539	3.763	3.611	3.884
August	--	3.481	3.835	3.540	3.425	3.616	3.487	3.838
September	--	3.403	3.758	3.463	3.354	3.516	3.406	3.792
October	--	3.182	3.547	3.241	3.120	3.277	3.171	3.681

^a Prices are not adjusted for inflation. See "Nominal Dollars" in Glossary.
^b The 1981 average (available in Web file) is based on September through December data only.
^c Also includes grades of motor gasoline not shown separately.
^d Any area that does not require the sale of reformulated gasoline.
^e "Reformulated Gasoline Areas" are ozone nonattainment areas designated by the U.S. Environmental Protection Agency that require the use of reformulated gasoline (RFG). Areas are reclassified each time a shift in or out of an RFG program occurs due to federal or state regulations.
 NA=Not available. -- =Not applicable.
 Notes: • See Note 5, "Motor Gasoline Prices," at end of section. • See "Motor Gasoline Grades," "Motor Gasoline, Conventional," "Motor Gasoline, Oxygenated," and "Motor Gasoline, Reformulated" in Glossary. • Geographic coverage: for columns 1-4, current coverage is 85 urban areas; for columns 5-7, coverage is the 50 states and the District of Columbia; for column 8, coverage is the 48 contiguous

states and the District of Columbia.
 Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#prices> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.
 Sources: • **Motor Gasoline by Grade, Monthly Data: October 1973 forward**—U.S. Department of Labor, Bureau of Labor Statistics (BLS), *U.S. City Average Gasoline Prices*. • **Motor Gasoline by Grade, Annual Data: 1949-1973**—Platt's *Oil Price Handbook and Oilmanac*, 1974, 51st Edition. **1974 forward**—calculated by the U.S. Energy Information Administration (EIA) as simple averages of the BLS monthly data. • **Regular Motor Gasoline by Area Type:** EIA, calculated as simple averages of weighted weekly estimates from "Weekly U.S. Retail Gasoline Prices, Regular Grade." • **On-Highway Diesel Fuel:** EIA, calculated as simple averages of weighted weekly estimates from "Weekly Retail On-Highway Diesel Prices."

Table 9.5 Refiner Prices of Residual Fuel Oil
(Dollars^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	0.293	0.314	0.245	0.275	0.263	0.298
1980 Average .....	.608	.675	.479	.523	.528	.607
1985 Average .....	.610	.644	.560	.582	.577	.610
1990 Average .....	.472	.505	.372	.400	.413	.444
1995 Average .....	.383	.436	.338	.377	.363	.392
2000 Average .....	.627	.708	.512	.566	.566	.602
2001 Average .....	.523	.642	.428	.492	.476	.531
2002 Average .....	.546	.640	.508	.544	.530	.569
2003 Average .....	.728	.804	.588	.651	.661	.698
2004 Average .....	.764	.835	.601	.692	.681	.739
2005 Average	1.115	1.168	.842	.974	.971	1.048
2006 Average	1.202	1.342	1.085	1.173	1.136	1.218
2007 Average	1.406	1.436	1.314	1.350	1.350	1.374
2008 Average	1.918	2.144	1.843	1.889	1.866	1.964
2009 Average	1.337	1.413	1.344	1.306	1.342	1.341
2010 Average	1.756	1.920	1.679	1.619	1.697	1.713
2011 Average	2.389	2.736	2.316	2.257	2.336	2.401
2012 January	2.591	2.965	2.480	2.452	2.512	2.620
February	2.739	3.070	2.632	2.556	2.654	2.705
March	2.921	3.159	2.717	2.601	2.772	2.784
April	2.805	3.201	2.624	2.596	2.670	2.731
May	2.589	3.170	2.501	2.652	2.527	2.784
June	2.275	3.083	2.186	2.179	2.211	2.476
July	2.271	2.926	2.224	2.221	2.234	2.406
August	2.586	3.041	2.457	2.442	2.483	2.579
September	2.558	2.970	2.491	2.473	2.501	2.582
October	2.464	2.969	2.393	2.382	2.409	2.496
November	2.385	2.895	2.283	2.346	2.300	2.492
December	2.341	2.814	2.248	2.275	2.268	2.431
Average	2.548	3.025	2.429	2.433	2.457	2.592
2013 January	2.530	2.874	2.328	2.333	2.388	2.475
February	2.571	3.017	2.388	2.402	2.415	2.578
March	2.479	2.949	2.294	2.320	2.346	2.517
April	2.354	2.875	2.214	2.238	2.246	2.354
May	2.316	2.839	2.213	2.421	2.240	2.507
June	2.285	2.785	2.214	2.385	2.234	2.454
July	2.282	2.768	2.225	2.280	2.242	2.384
August	2.331	2.759	2.258	2.411	2.277	2.500
September	2.359	2.839	2.265	2.412	2.286	2.513
October	2.338	NA	2.232	2.364	2.255	2.532
November	2.296	NA	2.190	2.328	2.224	2.492
December	2.315	NA	2.177	2.353	2.209	2.458
Average	2.363	2.883	2.249	2.353	2.278	2.482
2014 January	2.337	NA	2.117	2.400	2.173	2.481
February	2.459	NA	2.139	2.459	2.207	2.532
March	2.470	NA	2.175	2.376	2.255	2.476
April	2.401	NA	2.149	2.323	2.226	2.464
May	2.350	2.902	2.198	2.304	2.267	2.420
June	2.358	2.888	2.247	2.314	2.293	2.423
July	2.287	2.977	^R 2.186	2.324	2.223	2.455
August	2.151	W	2.130	2.350	2.137	2.471

^a Prices are not adjusted for inflation. See "Nominal Dollars" in Glossary.
R=Revised. NA=Not available. W=Value withheld to avoid disclosure of individual company data.

Notes: • Sales for resale are those made to purchasers other than ultimate consumers. Sales to end users are those made directly to ultimate consumers, including bulk consumers (such as agriculture, industry, and electric utilities) and commercial consumers. • Values for the current month are preliminary.
• Through 1982, prices 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.gov/totalenergy/data/monthly/#prices> (Excel and CSV files) for all available annual data beginning in 1978 and monthly data beginning in 1982.

Sources: • **1978–2007:** EIA, *Petroleum Marketing Annual 2007*, Table 17.
• **2008 forward:** EIA, *Petroleum Marketing Monthly*, November 2014, Table 16.

Table 9.6 Refiner Prices of Petroleum Products for Resale
(Dollars^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	0.434	0.537	0.386	0.404	0.369	0.365	0.237
1980 Average .....	.941	1.128	.868	.864	.803	.801	.415
1985 Average .....	.835	1.130	.794	.874	.776	.772	.398
1990 Average .....	.786	1.063	.773	.839	.697	.694	.386
1995 Average .....	.626	.975	.539	.580	.511	.538	.344
2000 Average .....	.963	1.330	.880	.969	.886	.898	.595
2001 Average .....	.886	1.256	.763	.821	.756	.784	.540
2002 Average .....	.828	1.146	.716	.752	.694	.724	.431
2003 Average	1.002	1.288	.871	.955	.881	.883	.607
2004 Average	1.288	1.627	1.208	1.271	1.125	1.187	.751
2005 Average	1.670	2.076	1.723	1.757	1.623	1.737	.933
2006 Average	1.969	2.490	1.961	2.007	1.834	2.012	1.031
2007 Average	2.182	2.758	2.171	2.249	2.072	2.203	1.194
2008 Average	2.586	3.342	3.020	2.851	2.745	2.994	1.437
2009 Average	1.767	2.480	1.719	1.844	1.657	1.713	.921
2010 Average	2.165	2.874	2.185	2.299	2.147	2.214	1.212
2011 Average	2.867	3.739	3.014	3.065	2.907	3.034	1.467
2012 January	2.747	3.576	3.059	3.197	3.027	3.018	1.341
February	2.936	3.788	3.186	3.293	3.166	3.163	1.282
March	3.203	4.052	3.296	3.306	3.211	3.308	1.293
April	3.189	4.157	3.255	3.243	3.153	3.252	1.163
May	3.016	4.004	3.076	3.008	2.976	3.039	.950
June	2.757	3.883	2.747	2.697	2.635	2.741	.762
July	2.806	3.877	2.850	2.936	2.774	2.907	.809
August	3.087	4.124	3.129	3.195	2.988	3.206	.875
September	3.163	4.269	3.245	3.236	3.128	3.278	.910
October	2.941	4.002	3.182	3.250	3.155	3.265	.979
November	2.713	3.508	3.015	3.221	3.049	3.117	.955
December	2.590	3.518	2.982	3.145	3.003	3.022	.894
Average	2.929	3.919	3.080	3.163	3.031	3.109	1.033
2013 January	2.676	3.685	3.093	3.334	3.069	3.046	.928
February	3.020	4.058	3.250	3.474	3.168	3.259	.953
March	2.987	4.085	3.036	3.137	2.977	3.082	.952
April	2.853	3.962	2.884	2.889	2.793	2.969	.949
May	2.951	4.068	2.763	2.793	2.708	2.958	.932
June	2.882	3.950	2.784	2.806	2.741	2.923	.861
July	2.942	4.017	2.899	2.996	2.894	3.015	.903
August	2.890	4.025	2.995	3.055	2.954	3.084	1.059
September	2.792	3.854	3.017	3.057	2.973	3.095	1.114
October	2.632	3.656	2.928	3.029	2.955	3.006	1.154
November	2.544	3.467	2.868	2.995	2.910	2.949	1.219
December	2.581	3.508	2.978	3.164	3.011	2.998	1.342
Average	2.812	3.869	2.953	3.084	2.966	3.028	1.048
2014 January	2.604	3.538	2.964	3.237	3.059	2.981	1.641
February	2.699	3.712	2.981	3.353	3.051	3.091	1.654
March	2.855	3.865	2.939	3.153	2.979	3.031	1.198
April	2.981	3.940	2.911	2.938	2.911	3.027	1.121
May	2.951	3.881	2.932	2.939	2.883	2.987	1.057
June	3.001	4.056	2.917	2.926	2.878	2.973	1.054
July	^R 2.855	^R 3.914	^R 2.882	2.863	2.825	^R 2.921	1.075
August	2.759	3.799	2.882	2.922	2.784	2.899	1.055

^a Prices are not adjusted for inflation. See "Nominal Dollars" 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. • Through 1982, prices 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.gov/totalenergy/data/monthly/#prices> (Excel and CSV files) for all available annual data beginning in 1978 and monthly data beginning in 1982.

Sources: • 1978–2007: EIA, *Petroleum Marketing Annual 2007*, Table 4. • 2008 forward: EIA, *Petroleum Marketing Monthly*, November 2014, Table 4.

Table 9.7 Refiner Prices of Petroleum Products to End Users
(Dollars^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	0.484	0.516	0.387	0.421	0.400	0.377	0.335
1980 Average	1.035	1.084	.868	.902	.788	.818	.482
1985 Average .....	.912	1.201	.796	1.030	.849	.789	.717
1990 Average .....	.883	1.120	.766	.923	.734	.725	.745
1995 Average .....	.765	1.005	.540	.589	.562	.560	.492
2000 Average	1.106	1.306	.899	1.123	.927	.935	.603
2001 Average	1.032	1.323	.775	1.045	.829	.842	.506
2002 Average .....	.947	1.288	.721	.990	.737	.762	.419
2003 Average	1.156	1.493	.872	1.224	.933	.944	.577
2004 Average	1.435	1.819	1.207	1.160	1.173	1.243	.839
2005 Average	1.829	2.231	1.735	1.957	1.705	1.786	1.089
2006 Average	2.128	2.682	1.998	2.244	1.982	2.096	1.358
2007 Average	2.345	2.849	2.165	2.263	2.241	2.267	1.489
2008 Average	2.775	3.273	3.052	3.283	2.986	3.150	1.892
2009 Average	1.888	2.442	1.704	2.675	1.962	1.834	1.220
2010 Average	2.301	3.028	2.201	3.063	2.462	2.314	1.481
2011 Average	3.050	3.803	3.054	3.616	3.193	3.117	1.709
2012 January	2.914	3.732	3.087	3.848	3.345	3.093	1.655
February	3.087	W	3.206	3.874	3.495	3.224	1.518
March	3.389	4.133	3.337	3.919	3.522	3.378	1.470
April	3.405	4.313	3.283	3.916	3.509	3.342	1.352
May	3.289	W	3.100	3.741	3.258	3.163	1.080
June	3.061	W	2.768	3.753	2.982	2.912	.902
July	2.981	W	2.856	3.612	3.041	2.989	.972
August	3.248	4.091	3.123	3.575	3.256	3.265	.916
September	3.357	4.262	3.283	3.771	3.361	3.367	.932
October	3.261	4.064	3.211	3.864	3.486	3.364	.980
November	2.994	3.561	3.045	3.854	3.403	3.206	.926
December	2.828	3.599	3.008	3.789	3.321	3.115	.840
Average	3.154	3.971	3.104	3.843	3.358	3.202	1.139
2013 January	2.850	W	3.117	3.790	3.341	3.129	.891
February	3.221	4.060	3.294	3.887	3.498	3.339	.925
March	3.233	4.022	3.070	3.869	3.314	3.204	.943
April	3.102	3.860	2.922	3.836	3.217	3.090	.971
May	3.188	3.900	2.787	3.786	3.222	3.058	.953
June	3.184	4.191	2.813	3.634	3.172	3.028	.876
July	3.146	4.224	2.908	3.840	3.244	3.099	.935
August	3.097	4.298	3.002	3.707	3.314	3.169	1.074
September	3.059	3.982	3.040	3.849	3.327	3.184	1.115
October	2.893	3.653	2.931	3.852	NA	3.085	1.169
November	2.759	3.674	2.883	3.847	NA	3.030	1.222
December	2.759	3.678	3.008	W	3.578	3.055	1.322
Average	3.049	3.932	2.979	3.842	3.335	3.122	1.028
2014 January	2.816	W	2.987	W	3.591	3.024	1.457
February	2.913	4.142	2.994	W	3.687	3.139	1.513
March	3.104	W	2.942	4.067	3.621	3.115	1.137
April	3.214	W	2.931	4.108	3.572	3.109	1.122
May	3.245	W	2.965	4.056	3.546	3.081	1.056
June	3.265	W	2.945	W	3.493	3.064	1.072
July	^R 3.128	W	^R 2.906	3.965	3.428	^R 3.030	1.063
August	3.013	W	2.913	3.903	3.408	3.012	1.038

^a Prices are not adjusted for inflation. See "Nominal Dollars" 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. • Through 1982, prices are U.S. Energy

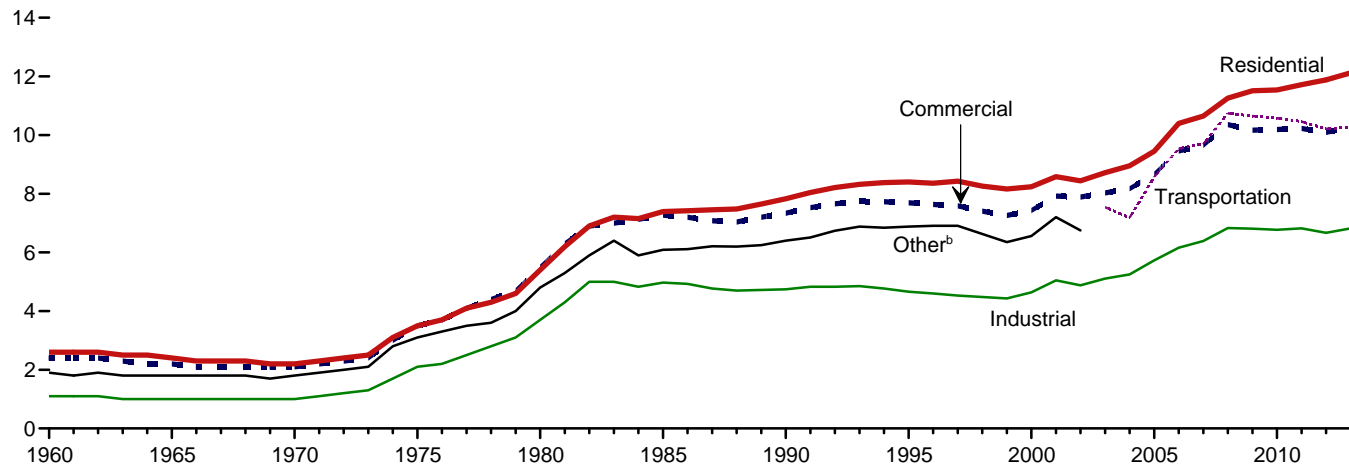
Information Administration (EIA) estimates. See Note 6, "Historical Petroleum Prices," at end of section. • Geographic coverage is the 50 states and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#prices> (Excel and CSV files) for all available annual data beginning in 1978 and monthly data beginning in 1982.

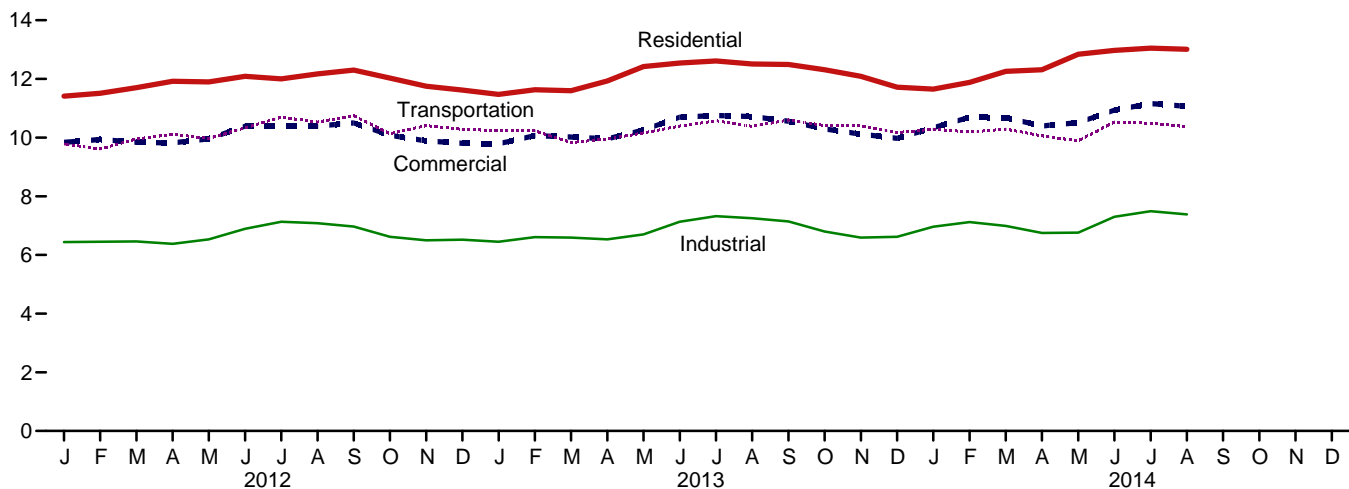
Sources: • 1978–2007: EIA, *Petroleum Marketing Annual 2007*, Table 2. • 2008 forward: EIA, *Petroleum Marketing Monthly*, November 2014, Table 2.

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

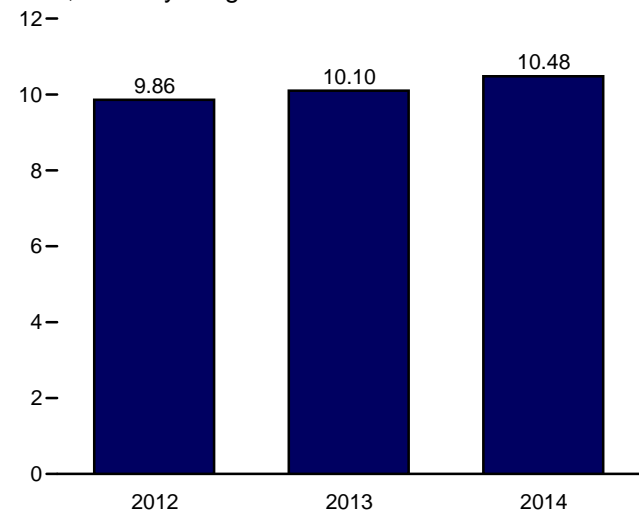
By Sector, 1960–2013



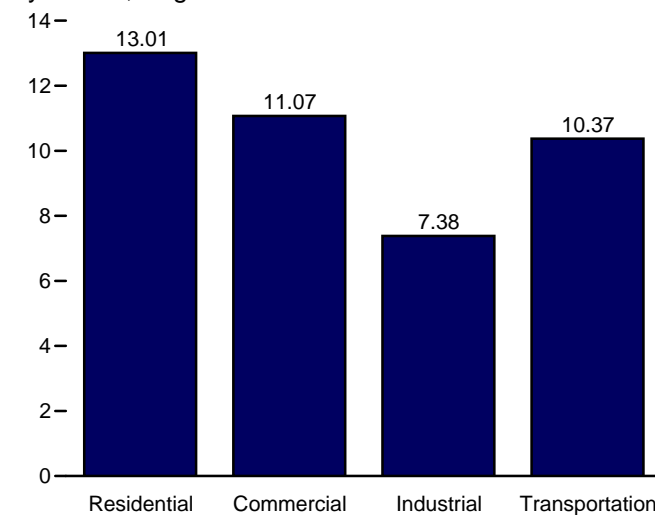
By Sector, Monthly



Total, January–August



By Sector, August 2014



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

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

Note: Includes taxes.

Web Page: <http://www.eia.gov/totalenergy/data/monthly/#prices>.

Source: Table 9.8.

Table 9.8 Average Retail Prices of Electricity
(Cents^a per Kilowatthour, Including Taxes)

	Residential	Commercial ^b	Industrial ^c	Transportation ^d	Other ^e	Total
1960 Average	2.60	2.40	1.10	NA	1.90	1.80
1965 Average	2.40	2.20	1.00	NA	1.80	1.70
1970 Average	2.20	2.10	1.00	NA	1.80	1.70
1975 Average	3.50	3.50	2.10	NA	3.10	2.90
1980 Average	5.40	5.50	3.70	NA	4.80	4.70
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
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 Average	11.26	10.36	6.83	10.74	--	9.74
2009 Average	11.51	10.17	6.81	10.65	--	9.82
2010 Average	11.54	10.19	6.77	10.57	--	9.83
2011 Average	11.72	10.23	6.82	10.46	--	9.90
2012 January	11.41	9.84	6.44	9.78	--	9.61
February	11.51	9.94	6.45	9.61	--	9.58
March	11.70	9.84	6.46	9.95	--	9.52
April	11.92	9.82	6.38	10.11	--	9.47
May	11.90	9.96	6.53	9.97	--	9.64
June	12.09	10.39	6.89	10.33	--	10.13
July	12.00	10.39	7.13	10.70	--	10.30
August	12.17	10.39	7.08	10.53	--	10.32
September	12.30	10.50	6.97	10.74	--	10.26
October	12.03	10.08	6.62	10.13	--	9.74
November	11.75	9.89	6.50	10.41	--	9.58
December	11.62	9.81	6.52	10.28	--	9.64
Average	11.88	10.09	6.67	10.21	--	9.84
2013 January	11.47	9.79	6.45	10.24	--	9.66
February	11.63	10.07	6.61	10.23	--	9.79
March	11.60	10.02	6.59	9.83	--	9.71
April	11.93	9.96	6.53	9.95	--	9.67
May	12.42	10.26	6.70	10.16	--	9.95
June	12.54	10.70	7.13	10.39	--	10.47
July	12.61	10.76	7.32	10.57	--	10.70
August	12.51	10.72	7.25	10.38	--	10.59
September	12.49	10.56	7.14	10.60	--	10.43
October	12.31	10.30	6.80	10.41	--	10.01
November	12.09	10.12	6.59	10.40	--	9.83
December	11.72	9.98	6.62	10.17	--	9.88
Average	12.12	10.29	6.82	10.28	--	10.08
2014 January	11.65	10.34	6.96	10.29	--	10.13
February	11.88	10.70	7.12	10.19	--	10.35
March	12.26	10.68	6.99	10.29	--	10.32
April	12.31	10.40	6.75	10.06	--	10.01
May	12.84	10.51	6.76	9.89	--	10.21
June	12.97	10.94	7.30	10.53	--	10.75
July	13.05	11.16	7.49	10.49	--	11.01
August	13.01	11.07	7.38	10.37	--	10.92
8-Month Average	12.48	10.74	7.10	10.26	--	10.48
2013 8-Month Average	12.10	10.32	6.83	10.22	--	10.10
2012 8-Month Average	11.85	10.09	6.68	10.12	--	9.86

^a Prices are not adjusted for inflation. See "Nominal Price" in Glossary.
^b Commercial sector. For 1960–2002, prices exclude public street and highway lighting, interdepartmental sales, and other sales to public authorities.

^c Industrial sector. For 1960–2002, 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.

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. • Through 1979, data are for Classes A and B privately owned electric utilities only.

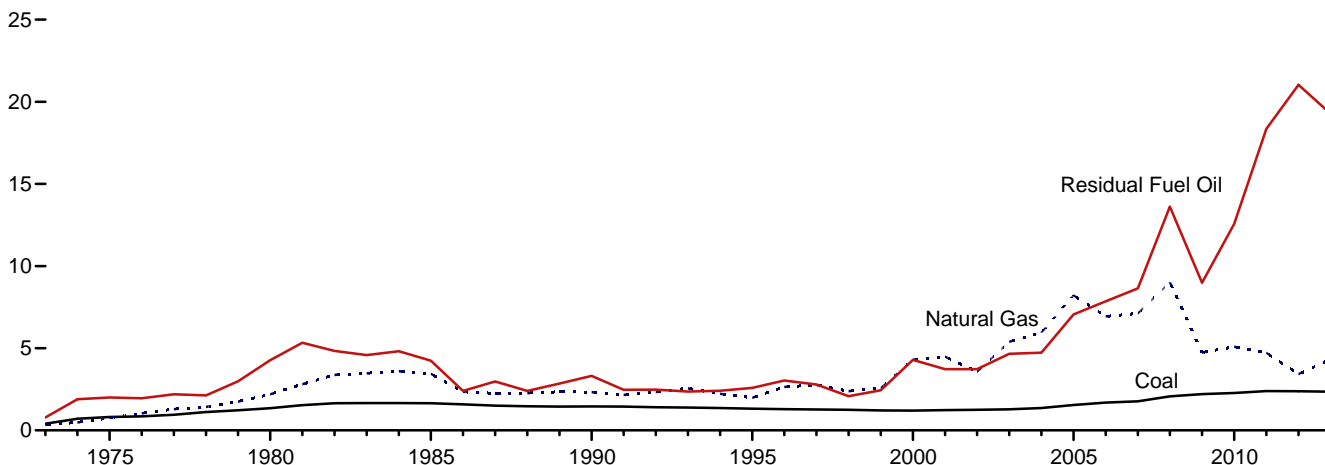
(Class A utilities are those with operating revenues of \$2.5 million or more; Class B utilities are those with operating revenues between \$1 million and \$2.5 million.) For 1980–1982, data are for selected Class A utilities whose electric operating revenues were \$100 million or more during the previous year. For 1983, data are for a selected sample of electric utilities. Beginning in 1984, data are for a census of electric utilities. Beginning in 1996, data also include energy service providers selling to retail customers. • 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.gov/totalenergy/data/monthly/#prices> (Excel and CSV files) for all available annual data beginning in 1960 and monthly data beginning in 1976.

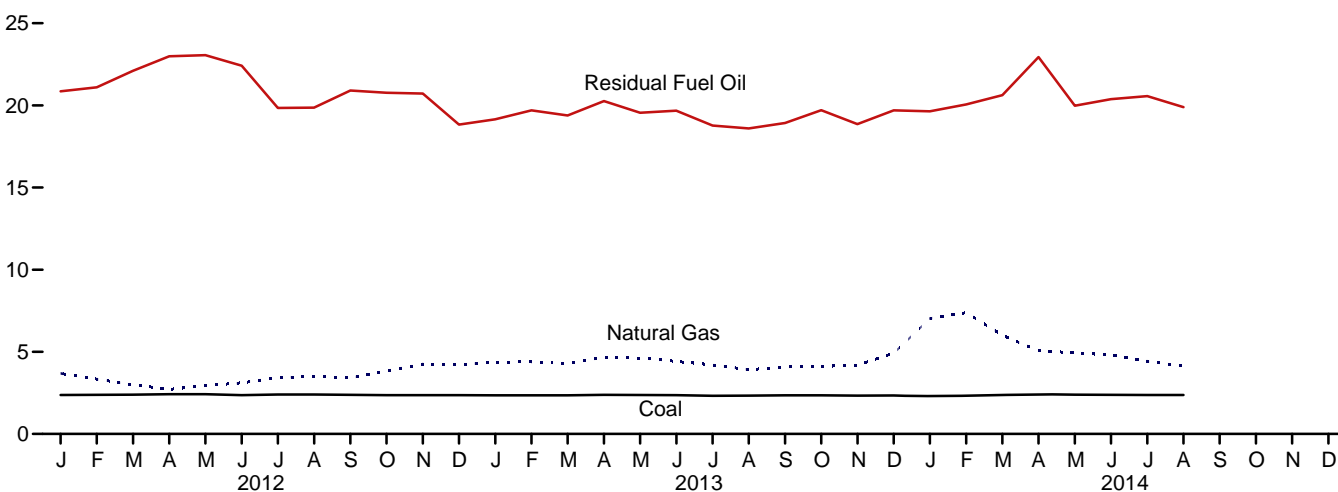
Sources: • **1960–September 1977:** Federal Power Commission, Form FPC-5, "Monthly Statement of Electric Operating Revenues and Income." • **October 1977–February 1980:** Federal Energy Regulatory Commission (FERC), Form FPC-5, "Monthly Statement of Electric Operating Revenues and Income." • **March 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." • **1984–2010:** EIA, Form EIA-861, "Annual Electric Power Industry Report." • **2011 forward:** EIA, *Electric Power Monthly*, October 2014, Table 5.3.

Figure 9.3 Cost of Fossil-Fuel Receipts at Electric Generating Plants
(Dollars^a per Million Btu, Including Taxes)

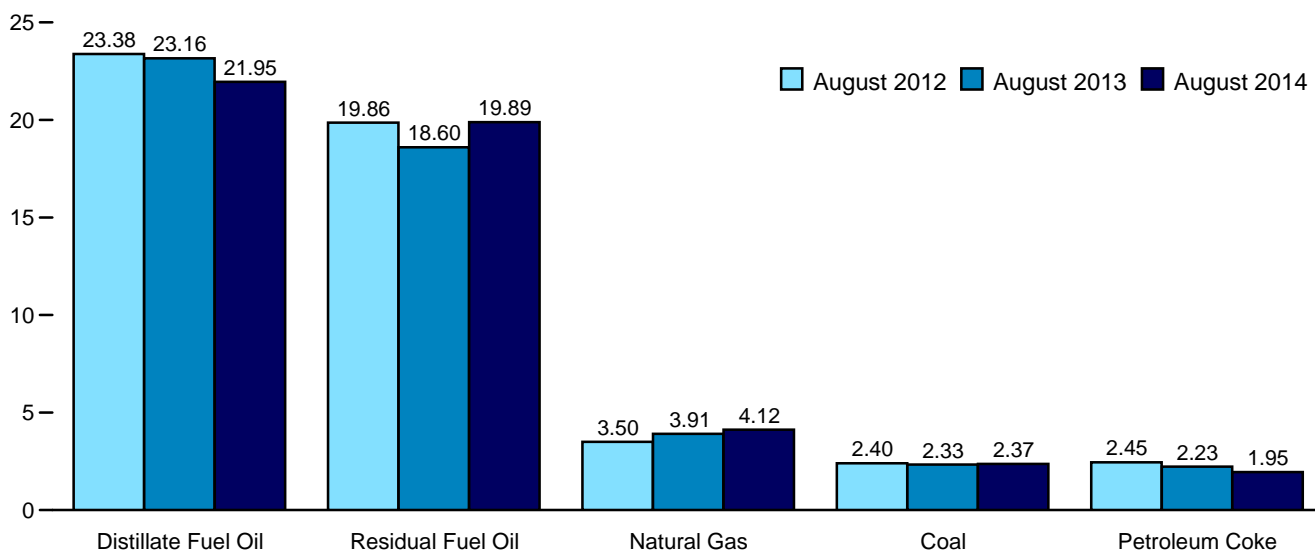
Costs, 1973–2013



Costs, Monthly



By Fuel Type



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

Web Page: <http://www.eia.gov/totalenergy/data/monthly/#prices>.
Source: Table 9.9.

Table 9.9 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
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 ^g	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 Average	2.07	13.62	21.46	2.11	10.87	9.01	4.12
2009 Average	2.21	8.98	13.22	1.61	7.02	4.74	3.04
2010 Average	2.27	12.57	16.61	2.28	9.54	5.09	3.26
2011 Average	2.39	18.35	22.46	3.03	12.48	4.72	3.29
2012 January	2.37	20.86	22.94	2.43	12.79	3.69	2.86
February	2.38	21.10	23.81	2.30	12.66	3.34	2.77
March	2.39	22.10	24.96	1.90	12.88	2.99	2.69
April	2.42	22.99	24.61	2.11	12.92	2.71	2.61
May	2.42	23.06	23.24	2.57	13.66	2.94	2.70
June	2.36	22.41	21.63	2.32	13.73	3.11	2.76
July	2.40	19.84	21.92	2.41	14.50	3.43	2.92
August	2.40	19.86	23.38	2.45	12.61	3.50	2.89
September	2.38	20.90	24.42	2.39	10.35	3.41	2.81
October	2.36	20.77	24.93	2.00	11.50	3.84	2.91
November	2.36	20.72	24.28	2.05	11.71	4.25	2.99
December	2.36	18.83	23.44	2.06	10.98	4.21	3.01
Average	2.38	21.03	23.49	2.24	12.48	3.42	2.83
2013 January	2.35	19.15	22.93	2.02	12.50	4.38	3.09
February	2.35	19.70	23.82	W	W	4.39	W
March	2.35	19.39	23.85	W	W	4.29	W
April	2.38	20.26	22.92	2.26	9.73	4.67	3.16
May	2.37	19.55	22.59	2.32	10.81	4.62	3.16
June	2.36	19.68	22.37	2.39	10.11	4.42	3.15
July	2.32	18.77	23.11	2.27	11.44	4.20	3.12
August	2.33	18.60	23.16	2.23	11.81	3.91	3.00
September	2.35	18.93	23.50	2.15	10.14	4.08	3.02
October	2.35	19.71	22.84	2.11	11.28	4.11	3.00
November	2.33	18.86	22.74	1.98	12.24	4.19	3.01
December	2.34	19.70	23.21	1.99	10.96	4.91	3.28
Average	2.35	19.27	23.05	2.16	11.56	4.33	3.10
2014 January	2.30	19.64	23.12	1.73	16.65	7.03	4.09
February	2.33	20.06	23.96	W	W	7.39	W
March	2.37	20.62	23.82	2.00	12.69	6.00	3.53
April	2.40	22.94	22.82	2.11	10.66	5.07	3.26
May	2.39	19.98	22.69	2.18	9.88	4.93	3.26
June	2.38	20.38	22.73	2.05	10.74	4.82	3.27
July	2.37	20.56	22.36	1.88	10.12	4.43	3.17
August	2.37	19.89	21.95	1.95	9.83	4.12	3.07
8-Month Average	2.36	20.37	23.16	2.00	12.74	5.35	3.45
2013 8-Month Average	2.35	19.28	23.06	2.21	11.79	4.33	3.11
2012 8-Month Average	2.39	21.38	23.16	2.31	13.23	3.22	2.78

^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 For all years, includes residual fuel oil and distillate fuel oil. For 1990 forward, also includes petroleum coke. For 1973–2012, also includes jet fuel, kerosene, and waste oil. For 1983–2012, also includes other petroleum, such as propane and refined motor oil.

^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."

^g 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.

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

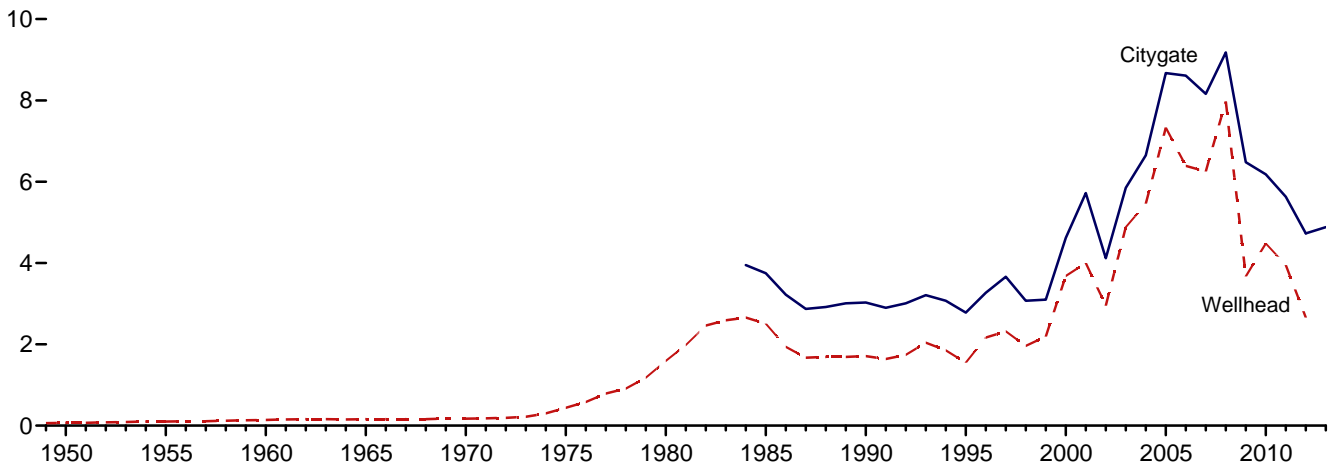
Notes: • Receipts are purchases of fuel. • Yearly costs are averages of monthly values, weighted by quantities in Btu. • For this table, there are several breaks in the data series related to what plants and fuels are covered. Beginning in 2013, data cover all regulated generating plants; plus unregulated plants whose total fossil-fueled nameplate generating capacity is 50 megawatts or more for coal, and 200 megawatts or more for natural gas, residual fuel oil, distillate fuel oil, and petroleum coke. For data coverage before 2013, see EIA, *Electric Power Monthly*, Appendix C, Form EIA-923 notes, "Receipts and cost and quality of fossil fuels" section. • Geographic coverage is the 50 states and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#prices> (Excel and CSV files) for all available annual and monthly data beginning in 1973.

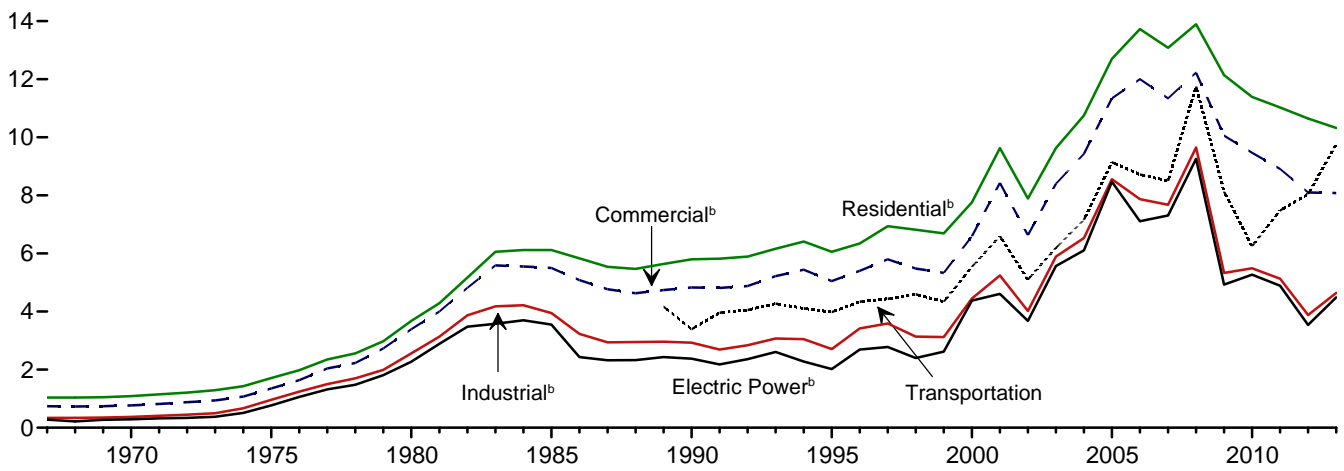
Sources: See end of section.

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

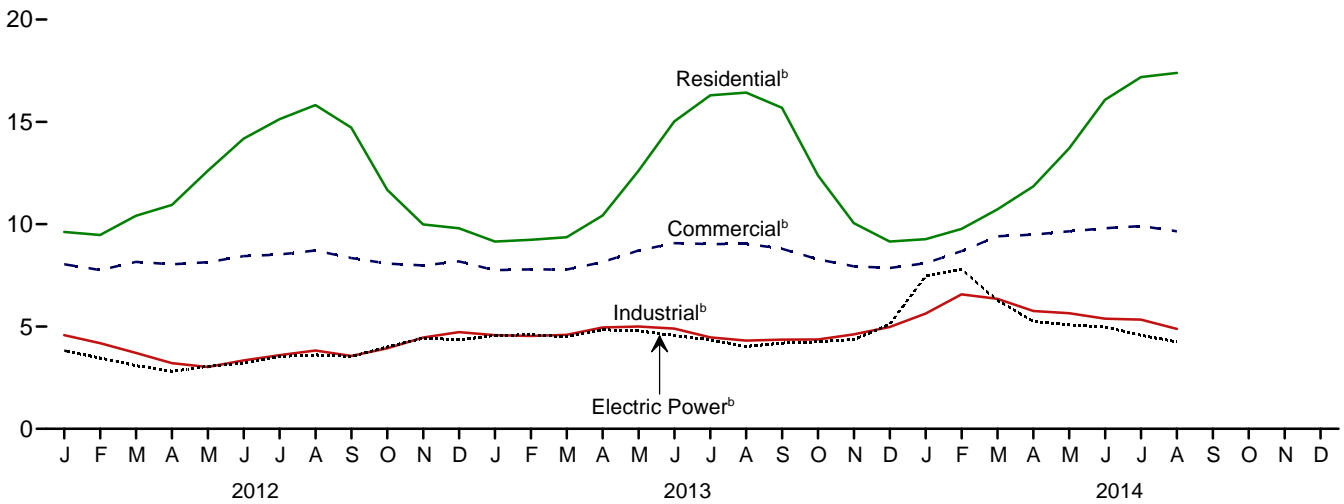
Wellhead and Citygate, 1949–2013



Consuming Sectors, 1967–2013



Consuming Sectors, Monthly



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

Web Page: <http://www.eia.gov/totalenergy/data/monthly/#prices>.
Source: Table 9.10.

Table 9.10 Natural Gas Prices
(Dollars^a per Thousand Cubic Feet)

	Wellhead Price ^f	City-gate Price ^g	Consuming Sectors ^b									
			Residential		Commercial ^c		Industrial ^d		Transportation	Electric Power ^e		
			Price ^h	Percentage of Sector ⁱ	Price ^h	Percentage of Sector ⁱ	Price ^h	Percentage of Sector ⁱ	Vehicle Fuel Price ^h	Price ^h	Percentage of Sector ^{i,k}	
1950 Average	0.07	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1955 Average	.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1960 Average	.14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1965 Average	.16	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1970 Average	.17	NA	1.09	NA	.77	NA	.37	NA	NA	.29	NA	NA
1975 Average	.44	NA	1.71	NA	1.35	NA	.96	NA	NA	.77	96.1	96.9
1980 Average	1.59	NA	3.68	NA	3.39	NA	2.56	NA	NA	2.27	96.9	96.9
1985 Average	2.51	3.75	6.12	NA	5.50	NA	3.95	68.8	NA	3.55	94.0	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	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	71.4
2000 Average	3.68	4.62	7.76	92.6	6.59	63.9	4.45	19.8	5.54	4.38	50.5	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	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	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	91.2
2004 Average	5.46	6.65	10.75	97.7	9.43	78.0	6.53	23.6	7.16	6.11	89.8	89.8
2005 Average	7.33	8.67	12.70	98.1	11.34	82.1	8.56	24.0	9.14	8.47	91.3	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	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	92.2
2008 Average	7.97	9.18	13.89	97.5	12.23	79.7	9.65	20.4	11.75	9.26	101.1	101.1
2009 Average	3.67	6.48	12.14	97.4	10.06	77.8	5.33	18.8	8.13	4.93	101.1	101.1
2010 Average	4.48	6.18	11.39	97.4	9.47	77.5	5.49	18.0	6.25	5.27	100.8	100.8
2011 Average	3.95	5.63	11.03	96.3	8.91	67.3	5.13	16.3	7.48	4.89	101.2	101.2
2012 January	E 2.89	4.85	R 9.62	R 96.3	R 8.04	71.5	R 4.58	R 16.1	NA	3.82	95.0	95.0
February	E 2.46	4.73	R 9.47	R 96.2	R 7.76	70.1	4.19	16.2	NA	3.46	95.3	95.3
March	E 2.25	4.84	R 10.41	R 96.2	8.16	R 68.1	3.71	R 16.0	NA	3.09	95.2	95.2
April	E 1.89	4.19	R 10.94	R 95.5	R 8.04	R 62.8	3.21	15.5	NA	2.81	96.4	96.4
May	E 1.94	4.30	R 12.61	R 95.4	R 8.14	59.2	3.02	R 15.6	NA	3.05	96.0	96.0
June	E 2.54	4.63	R 14.18	R 95.5	R 8.44	R 59.1	3.34	R 15.6	NA	3.21	95.8	95.8
July	E 2.59	4.88	R 15.13	R 95.5	R 8.52	R 57.9	3.60	R 16.1	NA	3.54	95.8	95.8
August	E 2.86	5.13	R 15.82	R 94.9	R 8.71	R 55.9	3.83	R 16.6	NA	3.61	95.2	95.2
September	E 2.71	4.76	R 14.72	R 95.0	R 8.35	R 56.4	3.56	R 16.5	NA	3.54	96.0	96.0
October	E 3.03	4.65	R 11.68	R 95.1	R 8.07	R 59.9	R 3.94	16.3	NA	4.00	95.9	95.9
November	E 3.35	4.79	R 9.99	R 95.3	R 7.99	R 65.3	4.46	R 16.9	NA	4.43	94.3	94.3
December	E 3.35	4.79	R 9.80	R 95.7	R 8.18	R 67.6	R 4.73	R 17.0	NA	4.35	94.4	94.4
Average	E 2.66	4.73	R 10.65	R 95.8	R 8.10	65.2	R 3.88	16.2	R 8.04	3.54	95.5	95.5
2013 January	NA	4.52	R 9.15	R 95.9	R 7.75	R 70.5	4.58	R 17.0	NA	4.56	95.2	95.2
February	NA	4.56	9.24	95.6	R 7.79	R 70.0	4.54	R 17.0	NA	4.59	94.5	94.5
March	NA	4.75	R 9.36	R 95.4	R 7.78	R 69.1	R 4.59	R 16.8	NA	4.50	94.9	94.9
April	NA	5.16	R 10.43	R 95.0	R 8.15	R 66.5	R 4.95	16.9	NA	4.84	95.3	95.3
May	NA	R 5.55	12.61	R 95.1	R 8.71	R 62.9	R 5.00	R 16.2	NA	4.79	95.4	95.4
June	NA	5.74	R 15.02	R 94.8	R 9.07	R 58.7	R 4.90	R 16.0	NA	4.56	95.1	95.1
July	NA	5.51	R 16.30	94.8	R 9.03	R 57.0	R 4.47	R 15.8	NA	4.34	94.6	94.6
August	NA	R 5.24	R 16.43	R 94.7	R 9.04	R 56.5	R 4.31	R 15.9	NA	4.03	94.6	94.6
September	NA	R 5.21	15.69	R 94.8	8.80	R 56.9	R 4.36	R 16.3	NA	4.19	95.1	95.1
October	NA	R 4.88	R 12.38	R 95.0	R 8.28	R 60.8	R 4.37	R 16.6	NA	4.26	94.9	94.9
November	NA	R 4.78	R 10.05	R 95.4	R 7.94	R 66.0	R 4.62	R 16.9	NA	4.36	93.9	93.9
December	NA	4.91	9.15	95.7	7.86	69.8	4.98	17.4	NA	5.11	94.9	94.9
Average	NA	4.88	R 10.32	R 95.4	R 8.08	R 66.1	R 4.64	R 16.6	R 9.76	4.49	94.9	94.9
2014 January	NA	R 5.59	R 9.27	R 95.6	R 8.10	71.1	R 5.63	16.5	NA	7.46	95.1	95.1
February	NA	6.31	R 9.77	95.0	R 8.68	R 71.0	R 6.57	17.0	NA	7.78	93.2	93.2
March	NA	R 6.57	R 10.72	95.1	R 9.41	69.5	R 6.35	16.9	NA	6.28	94.9	94.9
April	NA	5.63	11.85	R 94.9	R 9.49	65.5	R 5.76	16.0	NA	5.25	95.4	95.4
May	NA	R 5.86	R 13.71	R 95.0	R 9.65	R 60.8	R 5.65	R 15.9	NA	5.08	94.7	94.7
June	NA	R 5.96	R 16.08	R 95.1	R 9.80	R 58.6	R 5.38	15.8	NA	4.98	95.3	95.3
July	NA	R 5.95	R 17.19	R 94.3	R 9.91	R 56.5	R 5.34	R 15.8	NA	4.57	94.9	94.9
August	NA	5.30	17.39	95.3	9.65	55.7	4.88	15.6	NA	4.25	95.3	95.3
8-Month Average	NA	5.98	10.98	95.2	9.00	66.8	5.73	16.2	NA	5.56	94.9	94.9
2013 8-Month Average	NA	4.87	10.33	95.4	8.11	66.5	4.66	16.5	NA	4.49	94.9	94.9
2012 8-Month Average	E 2.43	4.71	10.69	96.0	8.09	65.9	3.71	16.0	NA	3.34	95.6	95.6

^a Prices are not adjusted for inflation. See "Nominal Dollars" in Glossary.
^b See Note 8, "Natural Gas Prices," at end of section.
^c Commercial sector, including commercial combined-heat-and-power (CHP) and commercial electricity-only plants. See Note 2, "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 2, "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.
^f See "Natural Gas Wellhead Price" in Glossary.
^g See "Citygate" in Glossary.
^h Includes taxes.
ⁱ 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 9.10 sources at end of section.

^j 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.
^k 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 8, "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.gov/totalenergy/data/monthly/#prices> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1976.
Sources: See end of section.

Energy Prices

Note 1. 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 2. Crude Oil Domestic First Purchase Prices. The average domestic first purchase price represents the average price at which all domestic crude oil is purchased. Crude oil domestic first purchase prices were derived as follows: for 1949–1973, weighted average domestic first purchase values as reported by state agencies and calculated by the Bureau of Mines; for 1974 and 1975, weighted averages of a sample survey of major first purchasers’ purchases; for 1976 forward, weighted averages of all first purchasers’ purchases. The data series was previously called “Actual Domestic Wellhead Price.”

Note 3. 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 4. 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 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 by grade 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. Prior to 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).

Regular motor gasoline prices by area type are determined by EIA in a weekly survey of retail motor gasoline outlets (Form EIA-878, “Motor Gasoline Price Survey”). Prices include all federal, state, and local taxes paid at the time of sale. A representative sample of outlets by geographic area and size is randomly selected from a sampling frame of approximately 115,000 retail motor gasoline outlets. Monthly and annual prices are simple averages of weighted weekly estimates from “Weekly U.S. Retail Gasoline Prices, Regular Grade.” For more information on the survey methodology, see EIA, *Weekly Petroleum Status Report*, Appendix B, “Weekly Petroleum Price Surveys” section.

Refiner prices of finished motor gasoline for resale and to end users are determined by 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. 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 EIA, *Natural Gas Monthly*, Appendix C.

Table 9.1 Sources

Domestic First Purchase Price

1949–1976: 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.”

1978–2011: U.S. Energy Information Administration (EIA), *Petroleum Marketing Annual 2009*, Table 1.

2012 forward: EIA, *Petroleum Marketing Monthly*, November 2014, 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.”

1978–2011: EIA, *Petroleum Marketing Annual 2009*, Table 1.

2012 forward: EIA, *Petroleum Marketing Monthly*, November 2014, Table 1.

Refiner Acquisition Cost

1968–1973: EIA estimates. The cost of domestic crude oil was derived by adding estimated transportation costs to the reported average domestic first purchase price. The cost of imported crude oil was derived by adding an estimated ocean transport cost based on the published “Average Freight Rate Assessment” 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.”

1978–2011: EIA, *Petroleum Marketing Annual 2009*, Table 1.

2012 forward: EIA, *Petroleum Marketing Monthly*, November 2014, 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.”

1978–2011: EIA, *Petroleum Marketing Annual 2007*, Table 21.

2012 forward: EIA, *Petroleum Marketing Monthly*, November 2014, Table 21.

Table 9.9 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*, October 2014, Table 4.1; and Form EIA-923, “Power Plant Operations Report.”

Table 9.10 Sources

All Prices Except Vehicle Fuel and Electric Power

1949–2011: U.S. Energy Information Administration (EIA), *Natural Gas Annual (NGA)*, annual reports and unpublished revisions.

2012 forward: EIA, *Natural Gas Monthly (NGM)*, October 2014, Table 3.

Vehicle Fuel Price

1989 forward: EIA, NGA, annual reports.

Electric Power Sector Price

1967–1972: EIA, NGA, annual reports.

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

1989–2011: EIA, Form EIA-176, “Annual Report of Natural and Supplemental Gas Supply and Disposition.”

2012 forward: EIA, Form EIA-857, “Monthly Report of Natural Gas Purchases and Deliveries to Consumers.”

Percentage of Commercial Sector

1987–2011: 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.

2012 forward: EIA, NGM, October 2014, Table 3.

Percentage of Industrial Sector

1982–2011: 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.

2012 forward: EIA, NGM, October 2014, 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 Quality 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 (MER)*, Table 7.3b; for 1989–2001, see MER, Table 7.4b).

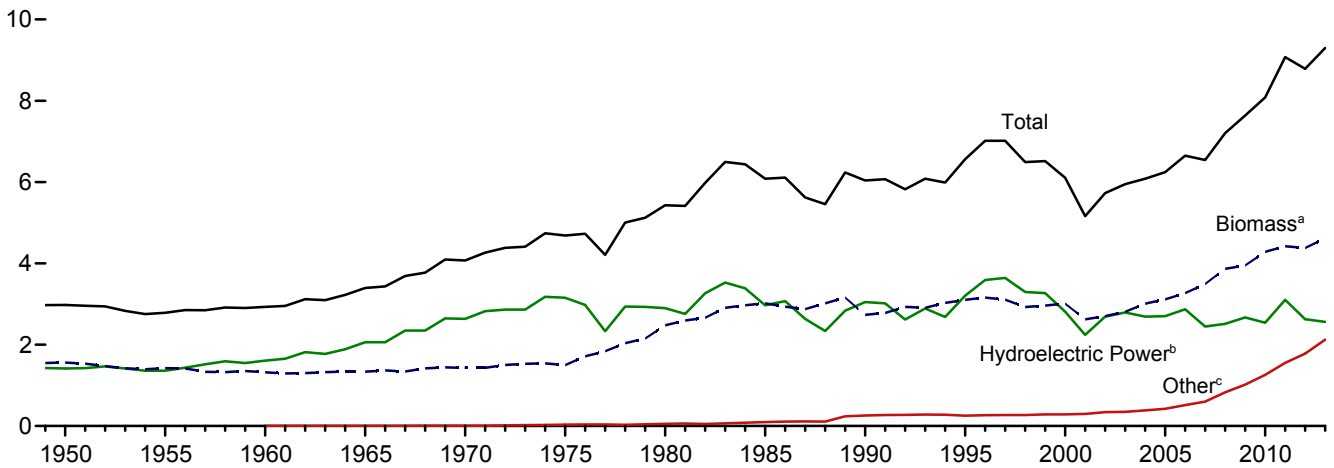
2002–2007: Calculated by EIA as the quantity of natural gas receipts by electric utilities and independent power producers reported on Form FERC-423, “Monthly Report of Cost and Quality of Fuels for Electric Utility Plants,” and EIA-423, “Monthly Cost and Quality of Fuels for Electric Plants Report,” divided by the quantity of natural gas consumed by the electric power sector (see MER, 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 MER, Table 7.4b).

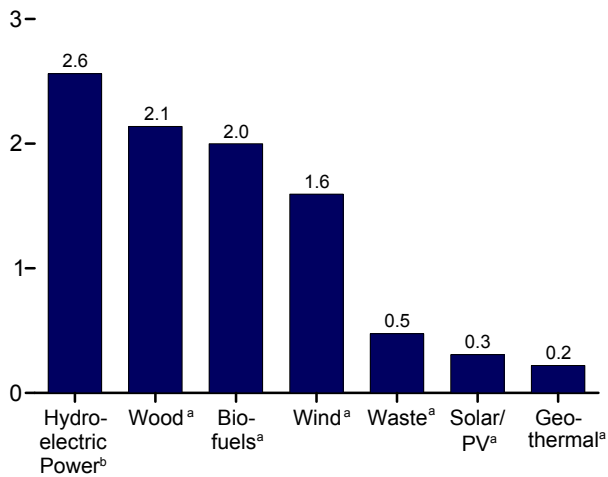
10. Renewable Energy

Figure 10.1 Renewable Energy Consumption
(Quadrillion Btu)

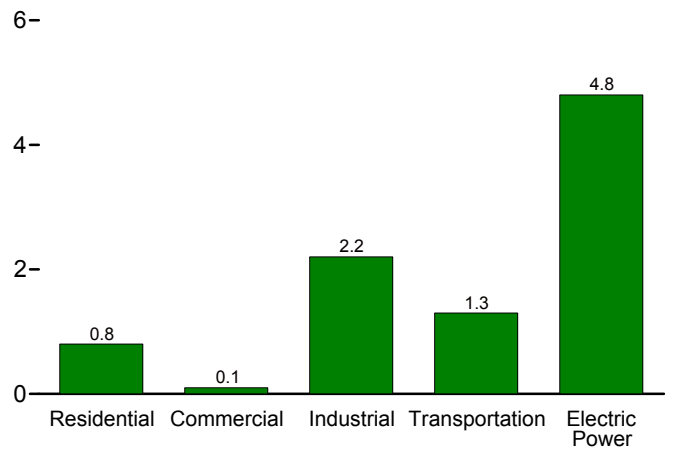
Total and Major Sources, 1949–2013



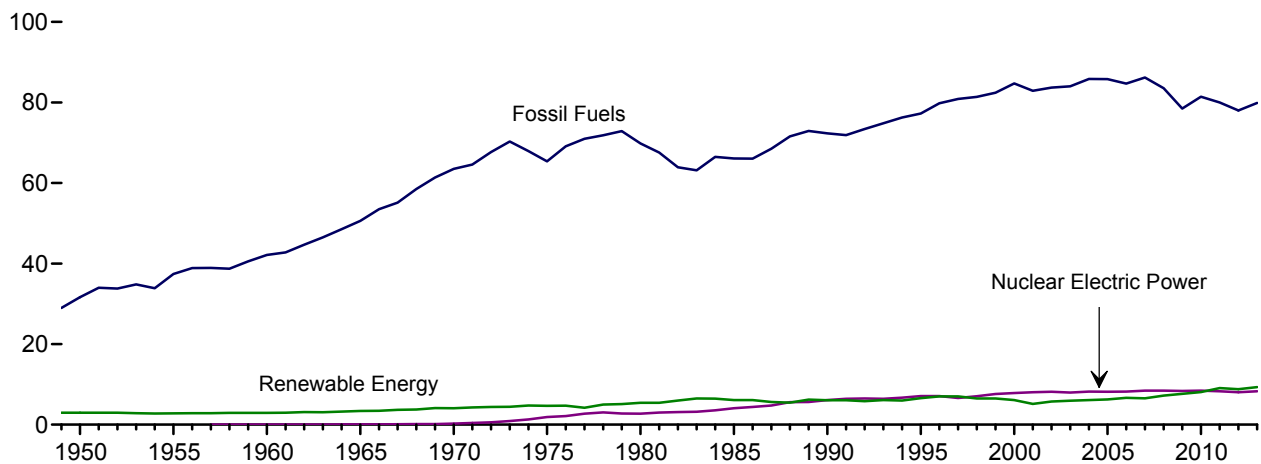
By Source, 2013



By Sector, 2013



Compared With Other Resources, 1949–2013



^a See Table 10.1 for definition.
^b Conventional hydroelectric power.
^c Geothermal, solar/PV, and wind.

Web Page: <http://www.eia.gov/totalenergy/data/monthly/#renewable>.
Sources: Tables 1.3 and 10.1–10.2c.

Table 10.1 Renewable Energy Production and Consumption by Source
(Trillion Btu)

	Production ^a			Consumption								
	Biomass		Total Renewable Energy ^d	Hydroelectric Power ^e	Geothermal ^f	Solar/PV ^g	Wind ^h	Biomass				Total Renewable Energy
	Bio-fuels ^b	Total ^c						Wood ⁱ	Waste ^j	Bio-fuels ^k	Total	
1950 Total	NA	1,562	2,978	1,415	NA	NA	NA	1,562	NA	NA	1,562	2,978
1955 Total	NA	1,424	2,784	1,360	NA	NA	NA	1,424	NA	NA	1,424	2,784
1960 Total	NA	1,320	2,928	1,608	(s)	NA	NA	1,320	NA	NA	1,320	2,928
1965 Total	NA	1,335	3,396	2,059	2	NA	NA	1,335	NA	NA	1,335	3,396
1970 Total	NA	1,431	4,070	2,634	6	NA	NA	1,429	2	NA	1,431	4,070
1975 Total	NA	1,499	4,687	3,155	34	NA	NA	1,497	2	NA	1,499	4,687
1980 Total	NA	2,475	5,428	2,900	53	NA	NA	2,474	2	NA	2,475	5,428
1985 Total	93	3,016	6,084	2,970	97	(s)	(s)	2,687	236	93	3,016	6,084
1990 Total	111	2,735	6,041	3,046	171	59	29	2,216	408	111	2,735	6,041
1995 Total	198	3,099	6,558	3,205	152	69	33	2,370	531	200	3,101	6,560
2000 Total	233	3,006	6,104	2,811	164	66	57	2,262	511	236	3,008	6,106
2001 Total	254	2,624	5,164	2,242	164	64	70	2,006	364	253	2,622	5,163
2002 Total	308	2,705	5,734	2,689	171	63	105	1,995	402	303	2,701	5,729
2003 Total	402	2,805	5,947	2,793	173	62	113	2,002	401	404	2,807	5,948
2004 Total	487	2,998	6,069	2,688	178	63	142	2,121	389	499	3,010	6,081
2005 Total	564	3,104	6,229	2,703	181	63	178	2,137	403	577	3,117	6,242
2006 Total	720	3,216	6,599	2,869	181	68	264	2,099	397	771	3,267	6,649
2007 Total	978	3,480	6,528	2,446	186	76	341	2,089	413	990	3,492	6,541
2008 Total	1,387	3,881	7,219	2,511	192	89	546	2,059	435	1,370	3,865	7,202
2009 Total	1,584	3,967	7,655	2,669	200	98	721	1,931	452	1,568	3,950	7,638
2010 Total	1,884	4,332	8,128	2,539	208	126	923	1,981	468	1,837	4,285	8,081
2011 Total	2,044	4,516	9,170	3,103	212	171	1,168	2,010	462	1,948	4,420	9,074
2012 January	177	388	772	220	17	17	130	173	38	156	367	751
February	164	363	693	193	16	16	105	162	36	152	351	681
March	171	377	792	247	18	18	133	166	40	164	370	785
April	164	358	765	250	17	18	121	157	37	160	354	761
May	173	376	806	273	18	20	119	165	38	170	373	803
June	165	367	772	254	17	20	114	165	37	165	367	772
July	157	368	743	252	18	21	84	172	39	158	369	744
August	162	375	712	219	18	20	81	173	39	168	380	718
September	151	356	644	168	18	20	84	168	37	150	355	643
October	153	363	678	157	18	20	120	168	41	159	368	683
November	150	358	683	178	18	19	111	167	41	150	358	684
December	155	372	766	219	19	19	138	174	42	152	369	763
Total	1,942	4,419	8,826	2,629	212	227	1,340	2,010	467	1,902	4,379	8,786
2013 January	152	375	794	239	19	22	139	183	41	151	374	793
February	139	339	705	195	17	21	132	164	36	139	340	706
March	161	381	770	197	19	25	149	180	40	162	382	771
April	161	365	808	236	18	25	165	166	38	163	367	810
May	171	386	857	272	18	26	155	175	40	171	386	857
June	169	385	821	260	18	27	131	176	40	171	387	823
July	172	402	813	259	19	27	106	190	41	170	401	812
August	168	392	737	207	19	28	91	184	40	167	391	735
September	164	377	695	161	18	27	111	175	38	168	381	699
October	179	398	740	165	19	28	131	178	40	182	401	743
November	178	396	759	169	18	25	151	179	39	173	391	754
December	187	417	799	203	19	26	134	187	43	183	413	795
Total	2,000	4,614	9,298	2,561	221	307	1,595	2,138	476	2,000	4,613	9,298
2014 January	172	395	819	206	19	29	171	183	40	165	388	812
February	158	359	702	166	17	27	133	166	35	155	356	699
March	175	396	849	231	18	34	169	182	40	166	387	840
April	173	386	857	239	18	36	178	175	38	170	383	854
May	181	400	857	252	19	39	148	181	38	180	399	856
June	179	400	853	246	18	40	149	182	38	174	395	848
July	186	415	819	231	18	39	115	188	41	180	409	812
August	179	408	751	188	18	40	97	189	40	179	408	751
8-Month Total	1,403	3,158	6,508	1,758	145	285	1,161	1,445	310	1,369	3,124	6,474
2013 8-Month Total	1,293	3,026	6,306	1,864	147	201	1,068	1,419	315	1,294	3,027	6,307
2012 8-Month Total	1,333	2,971	6,055	1,907	139	150	887	1,333	306	1,292	2,930	6,014

^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, and total biomass inputs to the production of fuel ethanol and biodiesel.

^d Hydroelectric power, geothermal, solar thermal/photovoltaic, wind, and biomass.

^e Conventional hydroelectricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6).

^f Geothermal electricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6), and geothermal heat pump and direct use energy.

^g Solar thermal and photovoltaic (PV) electricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6), and solar thermal direct use energy.

^h Wind electricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6).

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.

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.gov/totalenergy/data/monthly/#renewable> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.

Sources: Tables 10.2a–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 ^f	Wind ^g	Biomass				Total	
			Wood ^d						Wood ^d	Waste ^h	Fuel Ethanol ⁱ	Total		
1950 Total	NA	NA	1,006	1,006	NA	NA	NA	NA	19	NA	NA	NA	19	19
1955 Total	NA	NA	775	775	NA	NA	NA	NA	15	NA	NA	NA	15	15
1960 Total	NA	NA	627	627	NA	NA	NA	NA	12	NA	NA	NA	12	12
1965 Total	NA	NA	468	468	NA	NA	NA	NA	9	NA	NA	NA	9	9
1970 Total	NA	NA	401	401	NA	NA	NA	NA	8	NA	NA	NA	8	8
1975 Total	NA	NA	425	425	NA	NA	NA	NA	8	NA	NA	NA	8	8
1980 Total	NA	NA	850	850	NA	NA	NA	NA	21	NA	NA	NA	21	21
1985 Total	NA	NA	1,010	1,010	NA	NA	NA	NA	24	NA	(s)	NA	24	24
1990 Total	6	56	580	641	1	3	—	—	66	28	(s)	NA	94	98
1995 Total	7	64	520	591	1	5	—	—	72	40	(s)	NA	113	118
2000 Total	9	61	420	489	1	8	—	—	71	47	(s)	NA	119	128
2001 Total	9	59	370	438	1	8	—	—	67	25	(s)	NA	92	101
2002 Total	10	57	380	448	(s)	9	—	—	69	26	(s)	NA	95	104
2003 Total	13	57	400	470	1	11	—	—	71	29	1	NA	101	113
2004 Total	14	57	410	481	1	12	—	—	70	34	1	NA	105	118
2005 Total	16	58	430	504	1	14	—	—	70	34	1	NA	105	120
2006 Total	18	63	380	462	1	14	—	—	65	36	1	NA	103	118
2007 Total	22	70	420	512	1	14	—	—	70	31	2	NA	103	118
2008 Total	26	80	470	577	1	15	(s)	—	73	34	2	NA	109	125
2009 Total	33	89	500	622	1	17	(s)	(s)	73	36	3	NA	112	129
2010 Total	37	114	440	591	1	19	(s)	(s)	72	36	3	NA	111	130
2011 Total	40	153	450	643	(s)	20	1	(s)	69	43	3	NA	115	136
2012 January	3	16	36	55	(s)	2	(s)	(s)	5	4	(s)	NA	9	11
February	3	15	33	51	(s)	2	(s)	(s)	5	4	(s)	NA	9	10
March	3	16	36	55	(s)	2	(s)	(s)	5	4	(s)	NA	9	11
April	3	15	34	53	(s)	2	(s)	(s)	5	4	(s)	NA	9	11
May	3	16	36	55	(s)	2	(s)	(s)	5	4	(s)	NA	9	11
June	3	15	34	53	(s)	2	(s)	(s)	5	4	(s)	NA	9	11
July	3	16	36	55	(s)	2	(s)	(s)	5	4	(s)	NA	9	11
August	3	16	36	55	(s)	2	(s)	(s)	5	4	(s)	NA	9	11
September	3	15	34	53	(s)	2	(s)	(s)	5	4	(s)	NA	9	11
October	3	16	36	55	(s)	2	(s)	(s)	5	4	(s)	NA	9	11
November	3	15	34	53	(s)	2	(s)	(s)	5	4	(s)	NA	9	11
December	3	16	36	55	(s)	2	(s)	(s)	5	4	(s)	NA	9	11
Total	40	186	420	646	(s)	20	1	1	61	45	3	NA	109	131
2013 January	3	19	49	71	(s)	2	(s)	(s)	6	4	(s)	NA	10	12
February	3	17	44	64	(s)	2	(s)	(s)	5	4	(s)	NA	9	11
March	3	19	49	71	(s)	2	(s)	(s)	6	4	(s)	NA	10	12
April	3	18	48	69	(s)	2	(s)	(s)	6	4	(s)	NA	10	12
May	3	19	49	71	(s)	2	(s)	(s)	6	4	(s)	NA	10	12
June	3	18	48	69	(s)	2	(s)	(s)	6	4	(s)	NA	10	12
July	3	19	49	71	(s)	2	(s)	(s)	6	4	(s)	NA	10	12
August	3	19	49	71	(s)	2	(s)	(s)	6	4	(s)	NA	10	12
September	3	18	48	69	(s)	2	(s)	(s)	6	4	(s)	NA	10	12
October	3	19	49	71	(s)	2	(s)	(s)	6	4	(s)	NA	10	12
November	3	18	48	69	(s)	2	(s)	(s)	6	4	(s)	NA	10	12
December	3	19	49	71	(s)	2	(s)	(s)	6	4	(s)	NA	10	12
Total	40	219	580	839	(s)	20	3	1	70	46	3	NA	119	143
2014 January	3	21	49	74	(s)	2	(s)	(s)	6	4	(s)	NA	10	12
February	3	19	44	67	(s)	2	(s)	(s)	5	3	(s)	NA	9	11
March	3	21	49	74	(s)	2	(s)	(s)	6	4	(s)	NA	10	12
April	3	21	48	72	(s)	2	(s)	(s)	6	4	(s)	NA	10	12
May	3	21	49	74	(s)	2	(s)	(s)	6	4	(s)	NA	10	12
June	3	21	48	72	(s)	2	(s)	(s)	6	4	(s)	NA	10	12
July	3	21	49	74	(s)	2	(s)	(s)	6	4	(s)	NA	10	12
August	3	21	49	74	(s)	2	(s)	(s)	6	4	(s)	NA	10	12
8-Month Total	26	168	386	580	(s)	13	3	1	47	30	2	NA	79	96
2013 8-Month Total	26	146	386	558	(s)	13	2	(s)	47	31	2	NA	79	95
2012 8-Month Total	26	124	280	431	(s)	13	1	(s)	40	30	2	NA	72	87

^a Commercial sector, including commercial combined-heat-and-power (CHP) and commercial electricity-only plants. See Note 2, "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-fuels heat rate—see Table A6). Includes 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-fuels heat rate—see Table A6).

^f Photovoltaic (PV) electricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6) at commercial plants with capacity of 1 megawatt or greater.

^g Wind electricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6).

^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 The fuel ethanol (minus denaturant) portion of motor fuels, such as E10, consumed by the commercial sector.

NA=Not available. —=No data reported. (s)=Less than 0.5 trillion Btu.

Notes: • Data are estimates, except for commercial sector solar/PV, hydroelectric power, wind, 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.gov/totalenergy/data/monthly/#renewable> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.

Sources: See end of section.

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

	Industrial Sector ^a									Transportation Sector			
	Hydro-electric Power ^b	Geo-thermal ^c	Solar/PV ^d	Wind ^e	Biomass					Total	Biomass		
					Wood ^f	Waste ^g	Fuel Ethanol ^h	Losses and Co-products ⁱ	Total		Fuel Ethanol ^j	Bio-diesel	Total
1950 Total	69	NA	NA	NA	532	NA	NA	NA	532	602	NA	NA	NA
1955 Total	38	NA	NA	NA	631	NA	NA	NA	631	669	NA	NA	NA
1960 Total	39	NA	NA	NA	680	NA	NA	NA	680	719	NA	NA	NA
1965 Total	33	NA	NA	NA	855	NA	NA	NA	855	888	NA	NA	NA
1970 Total	34	NA	NA	NA	1,019	NA	NA	NA	1,019	1,053	NA	NA	NA
1975 Total	32	NA	NA	NA	1,063	NA	NA	NA	1,063	1,096	NA	NA	NA
1980 Total	33	NA	NA	NA	1,600	NA	NA	NA	1,600	1,633	NA	NA	NA
1985 Total	33	NA	NA	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	112	NA	112
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	1,725	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	327	12	339
2006 Total	29	4	—	—	1,472	130	10	285	1,897	1,930	442	33	475
2007 Total	16	5	—	—	1,413	145	10	377	1,944	1,965	557	45	602
2008 Total	17	5	—	—	1,339	143	12	532	2,026	2,047	786	39	825
2009 Total	18	4	—	—	1,178	154	13	617	1,963	1,985	894	41	935
2010 Total	16	4	(s)	—	1,273	168	17	742	2,201	2,221	1,041	33	1,075
2011 Total	17	4	(s)	(s)	1,309	165	17	771	2,261	2,283	1,045	113	1,158
2012 January	3	(s)	(s)	(s)	115	13	1	67	196	199	82	6	87
February	2	(s)	(s)	(s)	108	13	1	61	184	186	82	8	89
March	2	(s)	(s)	(s)	109	14	1	63	188	191	88	11	99
April	2	(s)	(s)	(s)	105	13	1	61	180	182	86	12	98
May	2	(s)	(s)	(s)	111	13	1	64	188	191	92	12	104
June	2	(s)	(s)	(s)	109	12	1	61	183	185	90	12	102
July	1	(s)	(s)	(s)	113	13	1	58	186	187	88	10	98
August	1	(s)	(s)	(s)	115	13	1	60	189	191	95	11	106
September	2	(s)	(s)	(s)	112	12	1	56	181	183	83	9	92
October	2	(s)	(s)	(s)	113	14	1	57	186	188	91	8	100
November	2	(s)	(s)	(s)	113	14	1	57	185	188	83	9	92
December	2	(s)	(s)	(s)	117	15	1	59	192	194	86	6	92
Total	22	4	(s)	(s)	1,339	159	16	724	2,238	2,265	1,045	114	1,159
2013 January	3	(s)	(s)	(s)	111	15	1	57	184	187	83	9	92
February	3	(s)	(s)	(s)	99	13	1	52	165	169	77	9	86
March	3	(s)	(s)	(s)	108	14	1	59	182	186	89	12	101
April	2	(s)	(s)	(s)	100	14	1	59	174	177	89	13	102
May	3	(s)	(s)	(s)	104	14	1	63	182	186	93	13	107
June	3	(s)	(s)	(s)	106	14	1	62	183	186	93	15	108
July	3	(s)	(s)	(s)	116	15	1	62	194	197	92	15	107
August	2	(s)	(s)	(s)	110	15	1	61	186	189	91	13	105
September	2	(s)	(s)	(s)	103	14	1	59	178	180	90	18	108
October	2	(s)	(s)	(s)	105	15	1	65	186	189	94	22	116
November	2	(s)	(s)	(s)	107	14	1	64	187	189	89	17	107
December	3	(s)	(s)	(s)	111	15	1	68	196	199	92	22	114
Total	32	4	(s)	(s)	1,281	171	16	729	2,197	2,234	1,073	179	1,252
2014 January	3	(s)	(s)	(s)	105	15	1	65	186	190	87	11	98
February	2	(s)	(s)	(s)	96	13	1	58	168	171	82	13	95
March	2	(s)	(s)	(s)	104	14	1	65	184	187	87	13	100
April	2	(s)	(s)	(s)	104	14	1	64	184	186	91	13	104
May	2	(s)	(s)	(s)	107	14	1	67	189	192	94	17	111
June	2	(s)	(s)	(s)	106	14	1	66	188	190	92	15	106
July	2	(s)	(s)	(s)	110	15	1	68	194	196	95	16	111
August	2	(s)	(s)	(s)	112	14	1	66	193	195	94	17	111
8-Month Total	17	3	(s)	(s)	844	112	11	519	1,486	1,506	723	114	837
2013 8-Month Total	23	3	(s)	(s)	853	114	11	473	1,451	1,477	707	100	808
2012 8-Month Total	15	3	(s)	(s)	885	103	11	495	1,494	1,512	702	82	784

^a Industrial sector, including industrial combined-heat-and-power (CHP) and industrial electricity-only plants. See Note 2, "Classification of Power Plants Into Energy-Use Sectors," at end of Section 7.

^b Conventional hydroelectricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6).

^c Geothermal heat pump and direct use energy.

^d Photovoltaic (PV) electricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6) at industrial plants with capacity of 1 megawatt or greater.

^e Wind electricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6).

^f Wood and wood-derived fuels.

^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 industrial sector.

ⁱ 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.

^j The fuel ethanol (minus denaturant) portion of motor fuels, such as E10 and E85, consumed by the transportation sector.

NA=Not available. —=No data reported. (s)=Less than 0.5 trillion Btu.

Notes: • Data are estimates, except for industrial sector hydroelectric power in 1949–1978 and 1989 forward, solar/PV, and wind. • 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.gov/totalenergy/data/monthly/#renewable> (Excel and CSV files) for all available annual data beginning in 1949 and monthly 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	
1950 Total	1,346	NA	NA	NA	5	NA	5	1,351
1955 Total	1,322	NA	NA	NA	3	NA	3	1,325
1960 Total	1,569	(s)	NA	NA	2	NA	2	1,571
1965 Total	2,026	2	NA	NA	3	NA	3	2,031
1970 Total	2,600	6	NA	NA	1	2	4	2,609
1975 Total	3,122	34	NA	NA	(s)	2	2	3,158
1980 Total	2,867	53	NA	NA	3	2	4	2,925
1985 Total	2,937	97	(s)	(s)	8	7	14	3,049
1990 Total ^g	3,014	161	4	29	129	188	317	3,524
1995 Total	3,149	138	5	33	125	296	422	3,747
2000 Total	2,768	144	5	57	134	318	453	3,427
2001 Total	2,209	142	6	70	126	211	337	2,763
2002 Total	2,650	147	6	105	150	230	380	3,288
2003 Total	2,749	146	5	113	167	230	397	3,411
2004 Total	2,655	148	6	142	165	223	388	3,339
2005 Total	2,670	147	6	178	185	221	406	3,406
2006 Total	2,839	145	5	264	182	231	412	3,665
2007 Total	2,430	145	6	341	186	237	423	3,345
2008 Total	2,494	146	9	546	177	258	435	3,630
2009 Total	2,650	146	9	721	180	261	441	3,967
2010 Total	2,521	148	12	923	196	264	459	4,064
2011 Total	3,085	149	17	1,167	182	255	437	4,855
2012 January	217	12	1	130	17	22	39	398
February	191	11	1	105	16	20	36	344
March	244	12	2	133	16	22	37	429
April	248	12	3	121	13	21	33	417
May	271	12	4	119	14	22	36	442
June	252	12	5	114	16	22	38	421
July	251	13	5	84	18	23	40	392
August	218	12	4	81	18	23	40	355
September	166	12	4	84	16	21	38	304
October	155	13	4	120	15	22	38	330
November	176	13	3	111	15	23	38	341
December	217	13	3	138	16	24	40	412
Total	2,606	148	40	1,339	190	262	453	4,586
2013 January	236	14	3	139	17	22	38	430
February	192	12	4	132	15	19	34	375
March	194	14	6	149	17	22	39	401
April	233	13	7	164	12	21	33	450
May	269	13	8	155	16	22	38	481
June	257	13	9	131	17	22	39	449
July	256	13	8	106	19	22	41	425
August	204	13	9	91	20	21	41	359
September	159	13	9	111	18	21	39	331
October	163	14	9	130	18	22	39	355
November	167	12	7	151	19	21	40	377
December	200	14	7	134	20	24	44	398
Total	2,529	157	85	1,595	207	258	465	4,831
2014 January	202	13	7	171	22	21	43	437
February	163	12	8	133	20	18	39	355
March	229	13	13	169	22	21	44	467
April	237	13	15	178	18	21	38	481
May	250	13	17	148	19	21	40	468
June	244	13	19	149	23	21	43	468
July	229	13	17	115	22	23	45	419
August	186	13	18	97	22	22	44	358
8-Month Total	1,741	103	115	1,160	168	168	336	3,454
2013 8-Month Total	1,841	105	53	1,068	133	171	303	3,370
2012 8-Month Total	1,892	97	25	887	127	172	300	3,200

^a Conventional hydroelectricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6).

^b Geothermal electricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6).

^c Solar thermal and photovoltaic (PV) electricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6).

^d Wind electricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6).

^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.

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.gov/totalenergy/data/monthly/#renewable> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.

Sources: Tables 7.2b, 7.4b, and A6.

Table 10.4 Biodiesel Overview

	Feed-stock ^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	Mbbl	Mbbl	Mbbl	MMgal	TBtu
2001 Total	1	(s)	204	9	1	81	41	40	NA	NA	NA	244	10	1
2002 Total	1	(s)	250	10	1	197	57	140	NA	NA	NA	390	16	2
2003 Total	2	(s)	338	14	2	97	113	-17	NA	NA	NA	322	14	2
2004 Total	4	(s)	666	28	4	101	128	-27	NA	NA	NA	639	27	3
2005 Total	12	(s)	2,162	91	12	214	213	1	NA	NA	NA	2,163	91	12
2006 Total	32	(s)	5,963	250	32	1,105	856	250	NA	NA	NA	6,213	261	33
2007 Total	63	1	11,662	490	62	3,455	6,696	-3,241	NA	NA	NA	8,422	354	45
2008 Total	88	1	16,145	678	87	7,755	16,673	-8,918	NA	NA	NA	7,228	304	39
2009 Total	67	1	12,281	516	66	1,906	6,546	-4,640	711	711	733	7,663	322	41
2010 Total	44	1	8,177	343	44	564	2,588	-2,024	672	-39	0	6,192	260	33
2011 Total	125	2	23,035	967	123	890	1,799	-908	2,012	^g 1,035	0	21,092	886	113
2012 January	10	(s)	1,751	74	9	48	258	-210	2,510	499	0	1,042	44	6
February	10	(s)	1,887	79	10	72	125	-53	2,895	384	0	1,450	61	8
March	12	(s)	2,251	95	12	25	189	-164	2,893	-1	0	2,088	88	11
April	12	(s)	2,237	94	12	32	230	-198	2,783	-111	0	2,149	90	12
May	13	(s)	2,428	102	13	75	320	-245	2,710	-73	0	2,256	95	12
June	12	(s)	2,223	93	12	132	392	-260	2,348	-362	0	2,325	98	12
July	12	(s)	2,127	89	11	166	426	-260	2,262	-86	0	1,953	82	10
August	12	(s)	2,176	91	12	55	403	-348	2,011	-250	0	2,079	87	11
September	11	(s)	1,949	82	10	108	295	-187	2,059	47	0	1,715	72	9
October	10	(s)	1,792	75	10	60	209	-149	2,183	124	0	1,519	64	8
November	7	(s)	1,363	57	7	9	65	-56	1,865	-318	0	1,624	68	9
December	8	(s)	1,406	59	8	71	143	-72	2,083	219	0	1,114	47	6
Total	128	2	23,588	991	126	853	3,056	-2,203	2,083	72	0	21,314	895	114
2013 January	9	(s)	1,640	69	9	38	16	22	2,090	7	0	1,655	70	9
February	9	(s)	1,672	70	9	88	37	51	2,093	3	0	1,720	72	9
March	13	(s)	2,412	101	13	439	176	263	2,491	398	0	2,276	96	12
April	14	(s)	2,548	107	14	372	371	1	2,588	97	0	2,452	103	13
May	14	(s)	2,645	111	14	410	563	-153	2,598	10	0	2,482	104	13
June	15	(s)	2,699	113	14	698	587	111	2,565	-33	0	2,843	119	15
July	17	(s)	3,072	129	16	358	429	-71	2,793	228	0	2,773	116	15
August	17	(s)	3,086	130	17	385	687	-302	3,099	306	0	2,478	104	13
September	16	(s)	3,025	127	16	781	511	270	3,051	-48	0	3,344	140	18
October	18	(s)	3,272	137	18	1,177	415	762	2,970	-81	0	4,116	173	22
November	17	(s)	3,080	129	17	1,641	408	1,233	4,029	1,059	0	3,254	137	17
December	17	(s)	3,217	135	17	1,765	476	1,289	4,506	477	0	4,029	169	22
Total	176	2	32,368	1,359	173	8,152	4,675	3,477	4,506	2,422	0	33,423	1,404	179
2014 January	9	(s)	1,612	68	9	233	135	98	4,171	^h -338	0	2,048	86	11
February	12	(s)	2,183	92	12	175	141	34	3,928	-243	0	2,461	103	13
March	13	(s)	2,325	98	12	257	91	166	4,074	146	0	2,345	98	13
April	12	(s)	2,219	93	12	146	261	-115	3,764	-310	0	2,414	101	13
May	13	(s)	2,409	101	13	563	208	355	3,334	-431	0	3,195	134	17
June	13	(s)	2,454	103	13	233	263	-30	2,995	-339	0	2,763	116	15
July	17	(s)	3,119	131	17	493	320	173	3,358	363	0	2,929	123	16
August	14	(s)	2,510	105	13	571	264	307	2,998	-360	0	3,177	133	17
8-Month Total	102	1	18,830	791	101	2,671	1,683	988	2,998	-1,512	0	21,330	896	114
2013 8-Month Total	107	1	19,774	831	106	2,788	2,866	-78	3,099	1,016	0	18,681	785	100
2012 8-Month Total	93	1	17,079	717	92	605	2,343	-1,738	2,011	(s)	0	15,341	644	82

^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. Through 2010, includes stocks at bulk terminals only. Beginning in 2011, includes stocks at bulk terminals and biodiesel production plants.
^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.
^g Derived from the final 2010 stocks value for bulk terminals and biodiesel production plants (977 thousand barrels), not the final 2010 value for bulk terminals only (672 thousand barrels) that is shown under "Stocks."

^h Derived from the preliminary 2013 stocks value (4,509 thousand barrels), not the final 2013 value (4,506 thousand barrels) that is shown under "Stocks."
 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. Beginning in 2014, biodiesel production data are estimated by EIA, and are only partially based on survey data. • 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.gov/totalenergy/data/monthly/#renewable> (Excel and CSV files) for all available annual and monthly data beginning in 2001.
 Sources: See end of section.

Renewable Energy

Note. Renewable Energy Production and Consumption. In Tables 1.1, 1.3, and 10.1, renewable energy consumption consists of: conventional hydroelectricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6); geothermal electricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6), and geothermal heat pump and geothermal direct use energy; solar thermal and photovoltaic electricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6), and solar thermal direct use energy; wind electricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6); 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. In Tables 1.1, 1.2, and 10.1, renewable energy 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

1989 forward: 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 estimates for 2012–2014 are set equal to that of 2011.)

Residential Sector, Solar/PV

1989–2009: U.S. Energy Information Administration (EIA) 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.

2010 forward: EIA estimates based on Form EIA-63B, “Annual Photovoltaic Cell/Module Shipments Report”; Form EIA-63A, “Annual Solar Thermal Collector Manufacturers Survey” (pre-2010 data); and SEIA/GTM Research, *U.S. Solar Market Insight: 2010 Year in Review*. 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 2014 is 15.0% higher than that of 2013, based on the growth rate for residential/commercial solar/PV in EIA’s *Annual Energy Outlook*, Table 17.)

Residential Sector, Wood

1949–1979: 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 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 2014 is set equal to that of 2013.)

Commercial Sector, Hydroelectric Power

1989 forward: Commercial sector conventional hydroelectricity net generation data from EIA, Form EIA-923, “Power Plant Operations Report,” and predecessor forms, are converted to Btu by multiplying by the fossil-fuels heat rate—see Table A6.

Commercial Sector, Geothermal

1989 forward: 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 estimates for 2012–2014 are set equal to that of 2011.)

Commercial Sector, Solar/PV

2008 forward: Commercial sector solar thermal and photovoltaic (PV) electricity net generation data from EIA, Form EIA-923, “Power Plant Operations Report,” are converted to Btu by multiplying by the fossil-fuels heat rate—see Table A6.

Commercial Sector, Wind

2009 forward: Commercial sector wind electricity net generation data from EIA, Form EIA-923, “Power Plant Operations Report,” are converted to Btu by multiplying by the fossil-fuels heat rate—see Table A6.

Commercial Sector, Wood

1949–1979: 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 estimate based on the 1983 value.

1985–1988: Values interpolated.

1989 forward: EIA, *Monthly Energy Review (MER)*, Tables 7.4a–7.4c; and EIA 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 2014 is set equal to that of 2013); 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

1989 forward: EIA, MER, Table 7.4c.

Commercial Sector, Fuel Ethanol (Minus Denaturant)

1981 forward: 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

1949 forward: Industrial sector conventional hydroelectricity net generation data from Table 7.2c are converted to Btu by multiplying by the fossil-fuels heat rate—see Table A6.

Industrial Sector, Geothermal

1989 forward: 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 estimates for 2012–2014 are set equal to that of 2011.)

Industrial Sector, Solar/PV

2010 forward: Industrial sector solar thermal and photovoltaic (PV) electricity net generation data from the U.S. Energy Information Administration (EIA), Form EIA-923, "Power Plant Operations Report," are converted to Btu by multiplying by the fossil-fuels heat rate—see Table A6.

Industrial Sector, Wind

2011 forward: Industrial sector wind electricity net generation data from EIA, Form EIA-923, "Power Plant Operations Report," are converted to Btu by multiplying by the fossil-fuels heat rate—see Table A6.

Industrial Sector, Wood

1949–1979: 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, *Monthly Energy Review (MER)*, Table 7.4c; and EIA 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 2014 is set equal to that of 2013); 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 estimates for total waste consumption based on *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.

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 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 2014 is set equal to that of 2013); 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)

1981 forward: 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

1981 forward: Calculated as fuel ethanol losses and co-products (Table 10.3) plus biodiesel losses and co-products (Table 10.4).

Transportation Sector, Fuel Ethanol (Minus Denaturant)

1981 forward: 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

2001 forward: EIA, MER, Table 10.4. Transportation sector biodiesel consumption is assumed to equal total biodiesel consumption.

Table 10.3 Sources

Feedstock

1981 forward: 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

1981 forward: 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 4.645 million Btu per barrel (the estimated quantity-weighted factor of pentanes plus and conventional motor gasoline used as denaturant).

2009–2013: U.S. Energy Information Administration (EIA), *Petroleum Supply Annual (PSA)*, annual 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 and motor gasoline blending components 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, conventional motor gasoline, and motor gasoline blending components.

2014: 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 and motor gasoline blending components 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, conventional motor gasoline, and motor gasoline blending components.

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."

2009–2013: EIA, PSA, annual reports, Table 1, data for net production of fuel ethanol at renewable fuels and oxygenate plants.

2014: EIA, PSM, monthly reports, Table 1, data for net production of fuel ethanol at renewable fuels and oxygenate plants.

Trade, Stocks, and Stock Change

1992–2013: EIA, PSA, annual reports, Table 1.

2014: EIA, PSM, monthly reports, Table 1.

Consumption

1981–1989: EIA, *Estimates of U.S. Biofuels Consumption 1990*, Table 10; and interpolated values for 1982, 1983, 1985, 1986, and 1988.

1990–1992: EIA, *Estimates of U.S. Biomass Energy Consumption 1992*, Table D2; and interpolated value for 1991.

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).

2009–2013: EIA, PSA, annual reports, Table 1. Calculated as fuel ethanol refinery and blender net inputs minus fuel ethanol adjustments.

2014: EIA, PSM, monthly reports, Table 1. Calculated as fuel ethanol refinery and blender net inputs minus fuel ethanol adjustments.

Consumption Minus Denaturant

1981 forward: 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.

Table 10.4 Sources

Feedstock

2001 forward: 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

2001 forward: 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 U.S. Energy Information Administration (EIA) estimates that 14.4 million gallons of yellow grease were consumed in methyl esters (biodiesel).

2007: 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).

2008: EIA, *Monthly Biodiesel Production Report*, December 2009 (release date October 2010), Table 11. Monthly data for 2008 are estimated based on U.S. Department of Commerce, Bureau of the Census, M311K data, multiplied by the EIA 2008 annual value’s share of the M311K 2008 annual value.

2009 and 2010: EIA, *Monthly Biodiesel Production Report*, monthly reports, Table 1.

2011–2013: EIA, *Petroleum Supply Annual (PSA)*, annual reports, Table 1, data for renewable fuels except fuel ethanol.

2014: EIA, *Petroleum Supply Monthly (PSM)*, monthly reports, Table 1, data for renewable fuels except fuel ethanol.

Trade

2001–2011: For imports, U.S. Department of Agriculture, data for the following Harmonized Tariff Schedule codes: 3824.90.40.20, “Fatty Esters Animal/Vegetable Mixture” (data through June 2010); and 3824.90.40.30, “Biodiesel/Mixes” (data for July 2010–2011). For exports, U.S. Department of Agriculture, data for the following Schedule B codes: 3824.90.40.00, “Fatty Substances Animal/Vegetable/Mixture” (data through 2010); and 3824.90.40.30, “Biodiesel <70%” (data for 2011). (The data above are converted from pounds to gallons by dividing by 7.4.) Although these categories include products other than biodiesel (such as biodiesel coprocessed with petroleum feedstocks; and products 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 substitutes.

2012 and 2013: EIA, PSA, annual reports, Tables 25 and 31, data for biomass-based diesel fuel.

2014: EIA, PSM, monthly reports, Tables 37 and 49, data for biomass-based diesel fuel.

Stocks and Stock Change

2009–2013: EIA, PSA, annual reports, Table 1, data for renewable fuels except fuel ethanol.

2014: EIA, PSM, monthly reports, Table 1, data for renewable fuels except fuel ethanol.

Balancing Item

2009 forward: 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.

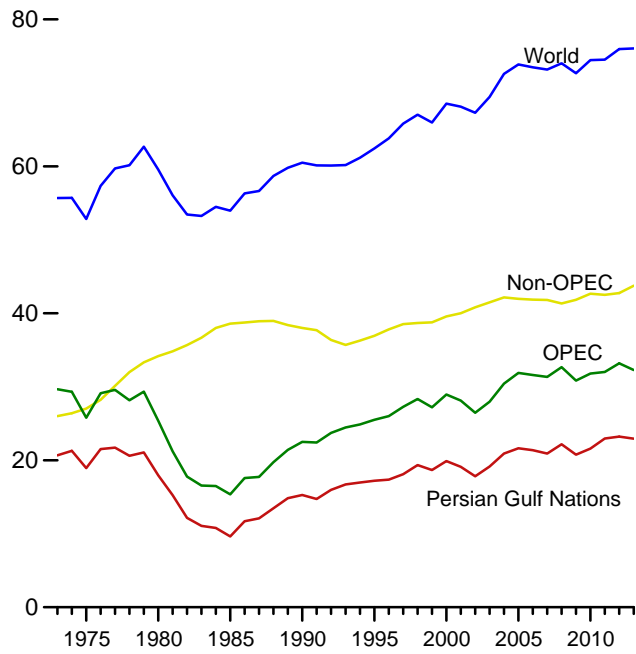
January and February 2009: EIA, PSA, Table 1, data for refinery and blender net inputs of renewable fuels except fuel ethanol.

March 2009 forward: Calculated as biodiesel production plus biodiesel net imports minus biodiesel stock change.

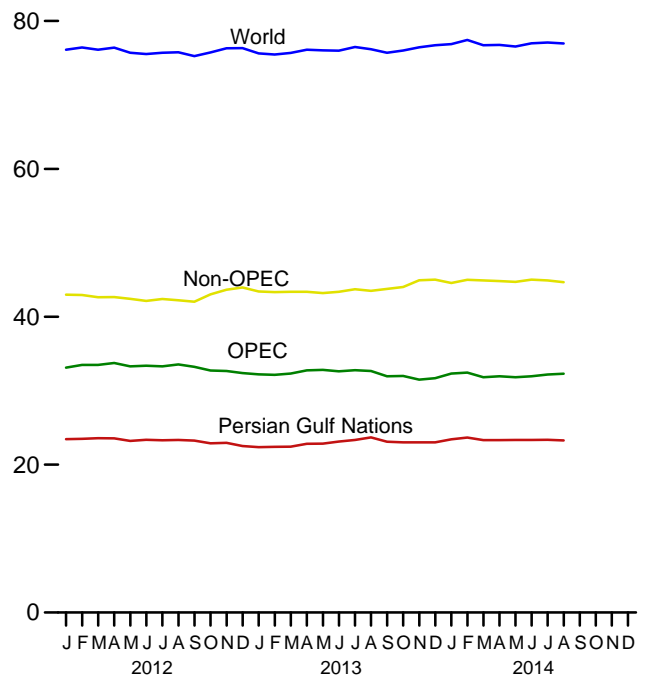
11. International Petroleum

Figure 11.1a World Crude Oil Production Overview
(Million Barrels per Day)

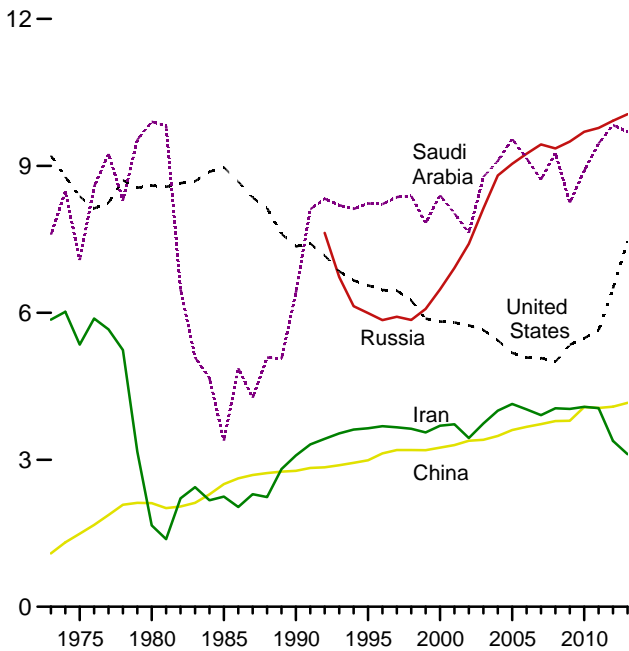
World Production, 1973–2013



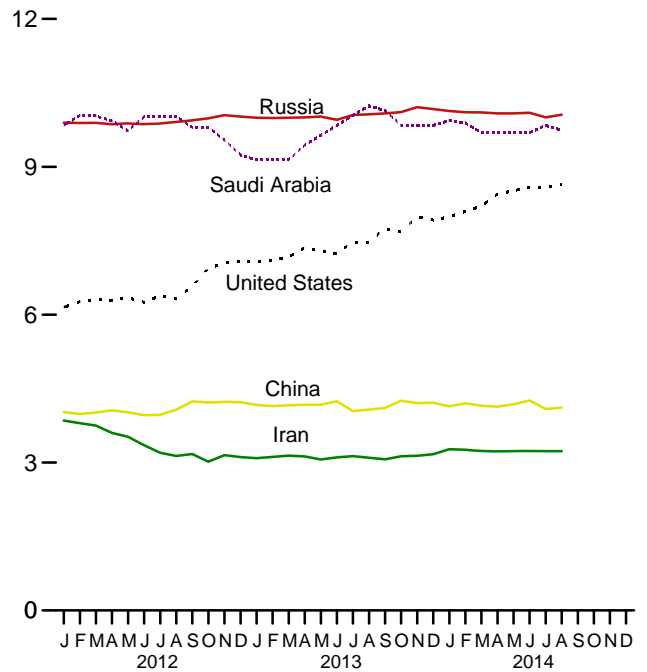
World Production, Monthly



Selected Producers, 1973–2013



Selected Producers, Monthly



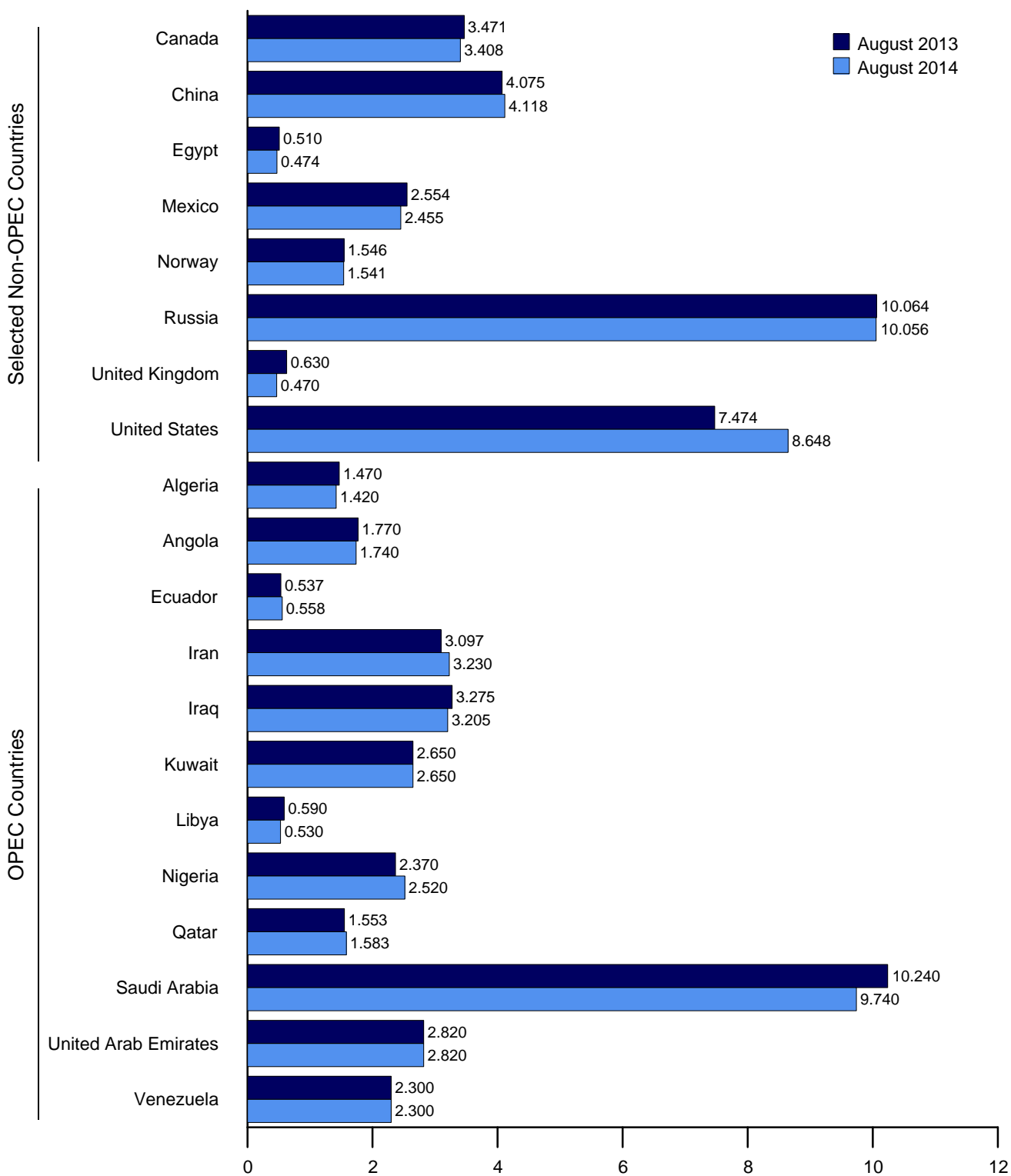
Notes: • OPEC is the Organization of the Petroleum Exporting Countries. • The Persian Gulf Nations are Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, and the United Arab Emirates. Production from the Neutral Zone between Kuwait and Saudi Arabia is included in “Per-

sian Gulf Nations.”

Web Page: <http://www.eia.gov/totalenergy/data/monthly/#international>.

Sources: Tables 11.1a and 11.1b.

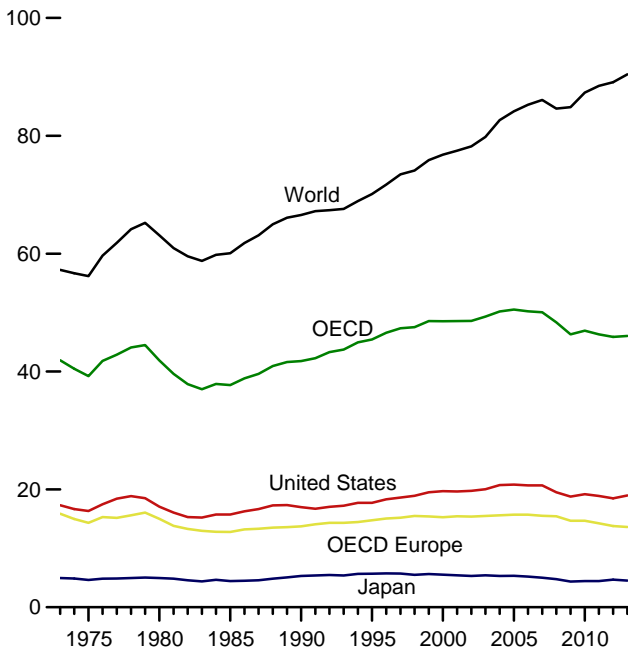
Figure 11.1b World Crude Oil Production by Selected Country
(Million Barrels per Day)



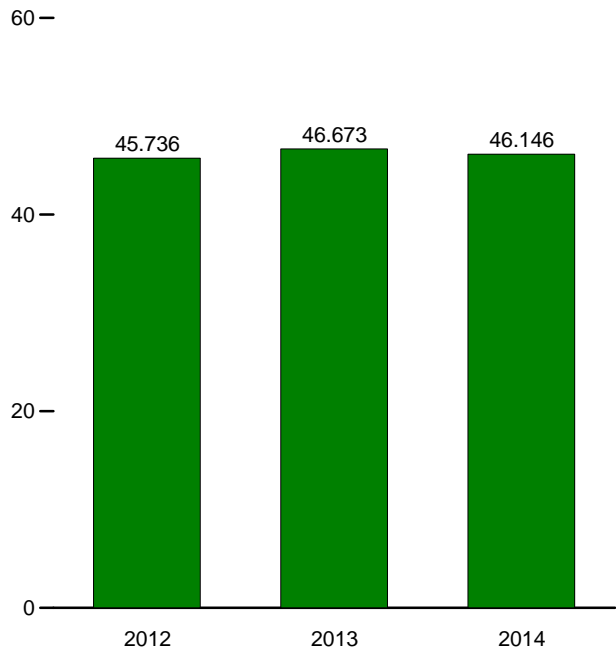
Note: OPEC is the Organization of the Petroleum Exporting Countries.
 Web Page: <http://www.eia.gov/totalenergy/data/monthly/#international>.
 Sources: Tables 11.1a and 11.1b.

Figure 11.2 Petroleum Consumption in OECD Countries
(Million Barrels per Day)

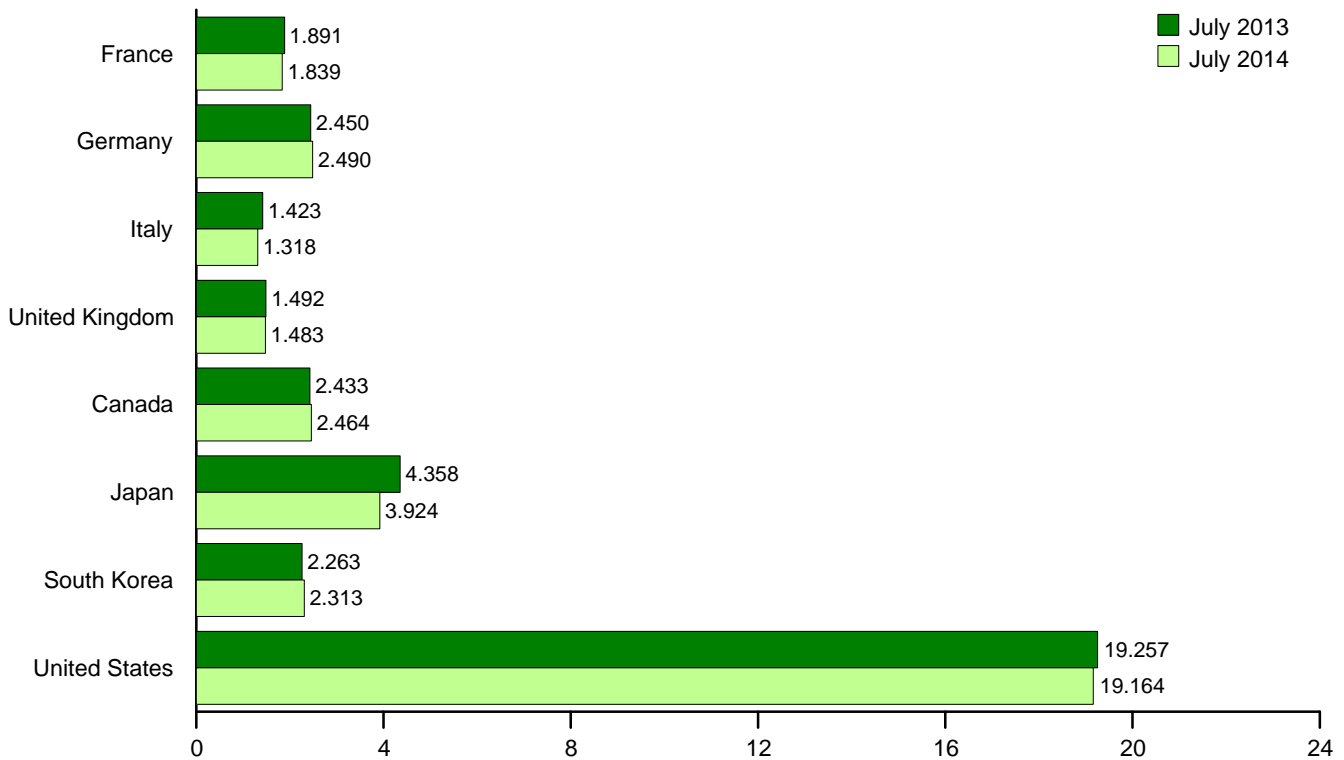
Overview, 1973–2013



OECD Total, July



By Selected OECD Country

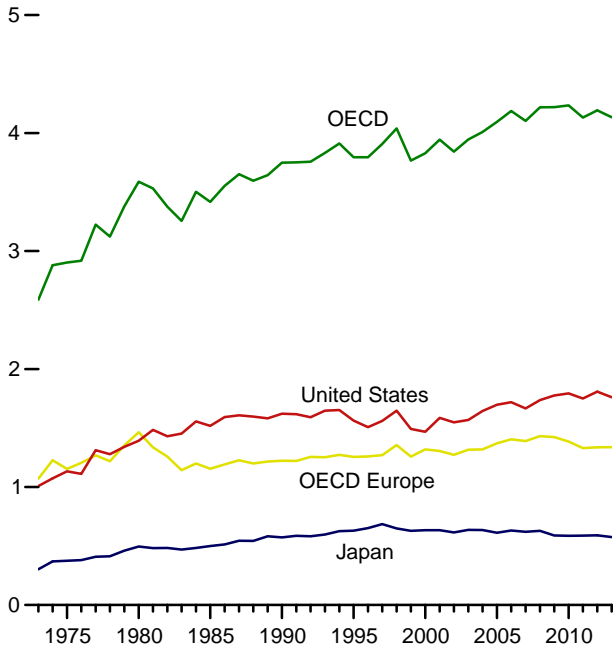


Note: OECD is the Organization for Economic Cooperation and Development.

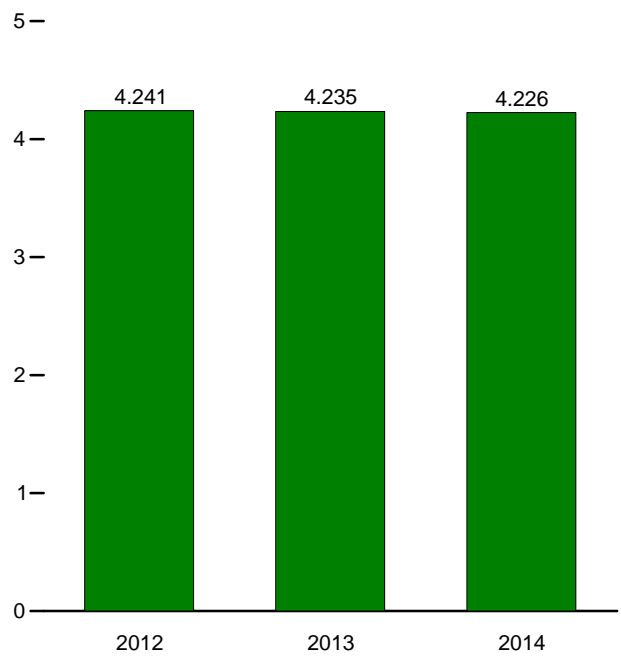
Web Page: <http://www.eia.gov/totalenergy/data/monthly/#international>.
Source: Table 11.2.

Figure 11.3 Petroleum Stocks in OECD Countries
(Billion Barrels)

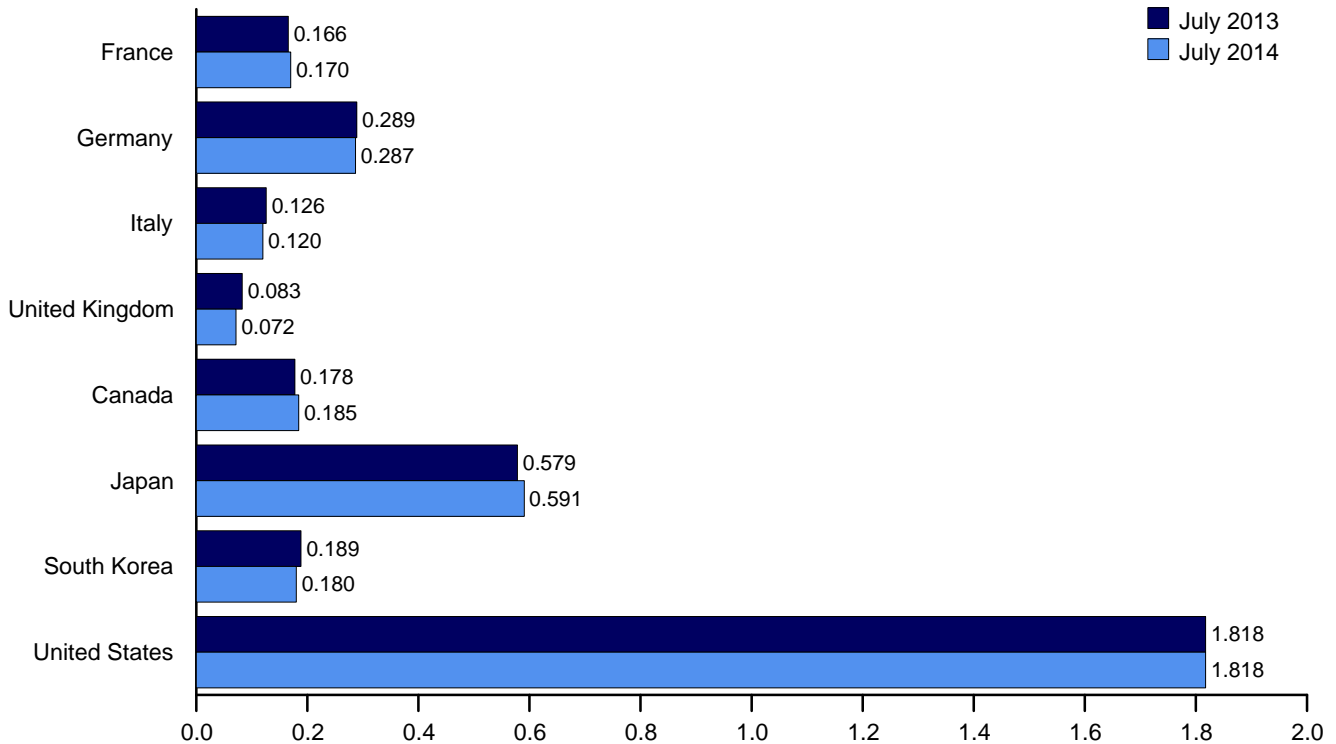
Overview, End of Year, 1973–2013



OECD Stocks, End of Month, July



By Selected OECD Country, End of Month



Note: OECD is the Organization for Economic Cooperation and Development.
Web Page: <http://www.eia.gov/totalenergy/data/monthly/#international>.
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	119	3,417
1990 Year	143	280	171	103	1,222	143	572	64	1,621	126	3,749
1995 Year	155	302	162	101	1,256	132	631	92	1,563	122	3,795
1996 Year	154	303	152	103	1,259	127	651	123	1,507	127	3,794
1997 Year	161	299	147	100	1,271	144	685	124	1,560	123	3,907
1998 Year	169	323	153	104	1,355	139	649	129	1,647	120	4,039
1999 Year	160	290	148	101	1,258	141	629	132	1,493	114	3,766
2000 Year	170	272	157	100	1,318	143	634	140	1,468	126	3,829
2001 Year	165	273	151	113	1,306	154	634	143	1,586	120	3,944
2002 Year	170	253	156	104	1,273	155	615	140	1,548	112	3,843
2003 Year	179	273	153	100	1,316	165	636	155	1,568	105	3,945
2004 Year	177	267	154	101	1,319	154	635	149	1,645	108	4,010
2005 Year	185	283	151	95	1,371	168	612	135	1,698	112	4,095
2006 Year	182	283	153	103	1,404	169	631	152	1,720	113	4,187
2007 Year	180	275	152	92	1,389	163	621	143	1,665	121	4,103
2008 Year	179	279	148	93	1,431	162	629	135	1,737	124	4,218
2009 Year	175	284	146	89	1,424	157	589	155	1,776	118	4,219
2010 Year	168	287	143	83	1,385	184	587	165	1,794	120	4,234
2011 Year	165	281	135	80	1,330	178	589	167	1,750	118	4,131
2012 January	166	288	138	84	1,359	178	594	164	1,773	121	4,189
February	165	286	138	84	1,356	180	583	171	1,767	113	4,172
March	165	284	139	82	1,367	171	580	164	1,783	113	4,178
April	163	284	137	85	1,359	170	592	174	1,784	115	4,195
May	162	281	137	82	1,338	172	597	183	1,796	117	4,202
June	164	280	134	82	1,340	170	601	177	1,810	112	4,210
July	163	285	132	80	1,350	173	608	181	1,813	116	4,241
August	168	284	138	82	1,367	177	603	179	1,801	114	4,241
September	164	283	143	75	1,349	180	606	184	1,819	117	4,254
October	160	282	141	75	1,330	175	614	180	1,810	110	4,219
November	160	287	138	85	1,345	174	604	177	1,810	106	4,217
December	162	287	126	81	1,336	174	591	175	1,808	108	4,192
2013 January	162	292	129	86	1,374	172	593	179	1,811	105	4,234
February	162	289	130	81	1,376	174	583	176	1,790	110	4,210
March	161	291	131	80	1,374	171	591	188	1,793	114	4,232
April	159	289	132	85	1,370	172	598	176	1,808	114	4,238
May	163	291	121	80	1,342	169	594	177	1,817	111	4,211
June	166	288	126	84	1,343	174	588	182	1,819	116	4,221
July	166	289	126	83	1,357	178	579	189	1,818	114	4,235
August	167	288	127	84	1,350	185	579	188	1,823	114	4,238
September	166	287	131	82	1,355	183	591	191	1,833	113	4,265
October	167	288	130	81	1,352	176	587	190	1,810	114	4,229
November	167	287	131	75	1,334	174	587	181	1,789	114	4,179
December	167	290	125	78	1,338	170	575	178	1,761	112	4,134
2014 January	171	291	127	77	1,359	170	579	178	1,743	^R 111	^R 4,139
February	167	296	124	77	1,353	176	576	182	1,743	^R 114	^R 4,144
March	167	289	122	77	1,342	174	586	187	1,753	110	4,151
April	167	291	122	76	1,338	178	576	180	1,780	112	4,165
May	172	294	128	76	1,361	176	584	184	1,809	^R 114	^R 4,228
June	168	292	121	75	^R 1,345	179	^R 585	180	1,814	^R 112	^R 4,215
July	170	287	120	72	1,338	185	591	180	1,818	113	4,226

^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; for 1984 forward, Czech Republic, Hungary, Poland, and Slovakia; and, for 2000 forward, Slovenia.

^c "Other OECD" consists of Australia, New Zealand, and the U.S. Territories; for 1984 forward, Mexico; and, for 2000 forward, Chile, Estonia, and Israel.

^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.gov/totalenergy/data/monthly/#international> (Excel and CSV files) for all available annual and monthly 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, November 14, 2014.**

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, International Energy Database, November 2014.

All Other Countries and World, Monthly Data

1973–1980: *Petroleum Intelligence Weekly (PIW)*, *Oil & Gas Journal (OGJ)*, and EIA adjustments.

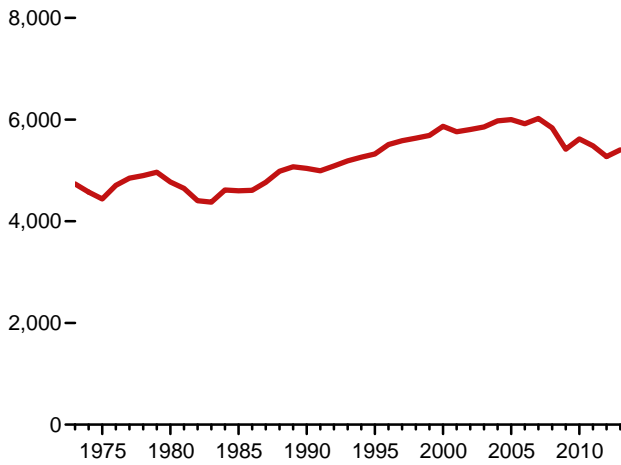
1981–1993: *PIW*, *OGJ*, and other industry sources.

1994 forward: EIA, International Energy Database, November 2014.

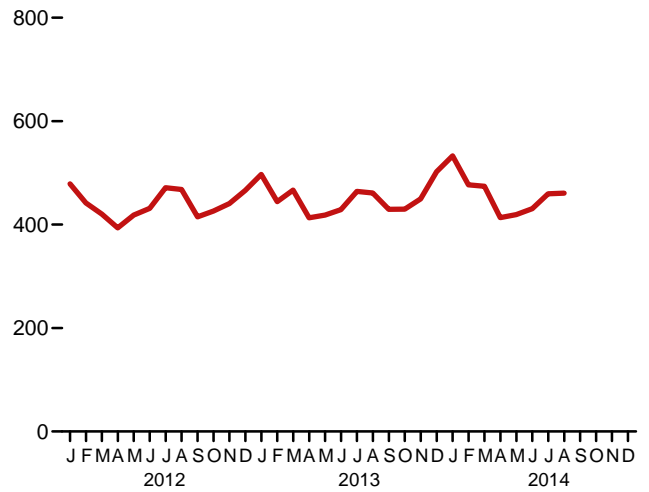
12. Environment

Figure 12.1 Carbon Dioxide Emissions From Energy Consumption by Source
(Million Metric Tons of Carbon Dioxide)

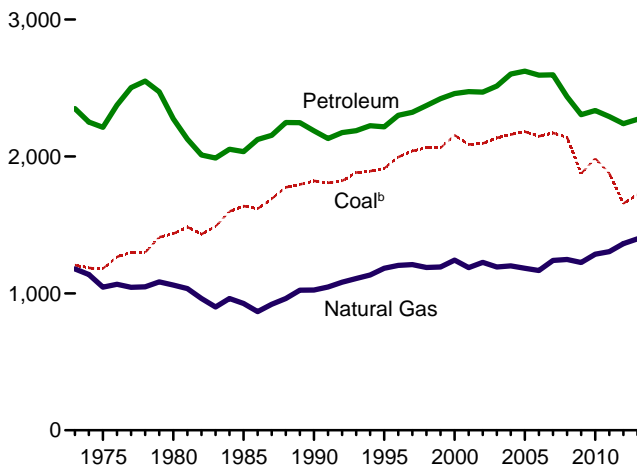
Total,^a 1973–2013



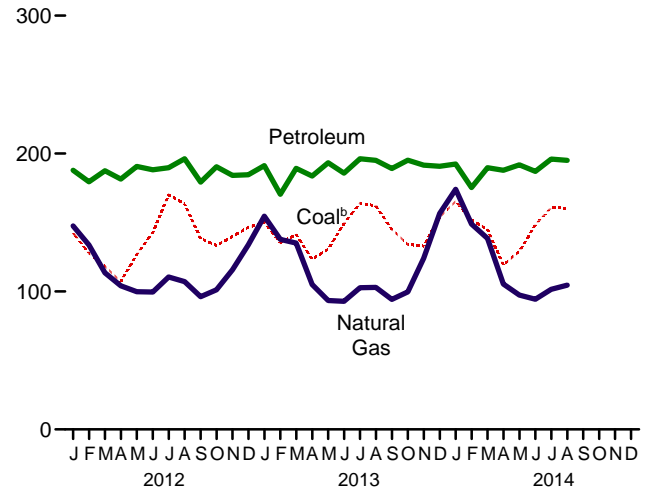
Total,^a Monthly



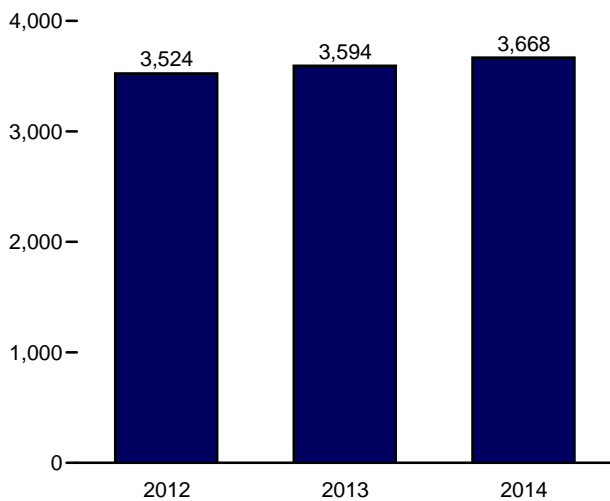
By Major Source, 1973–2013



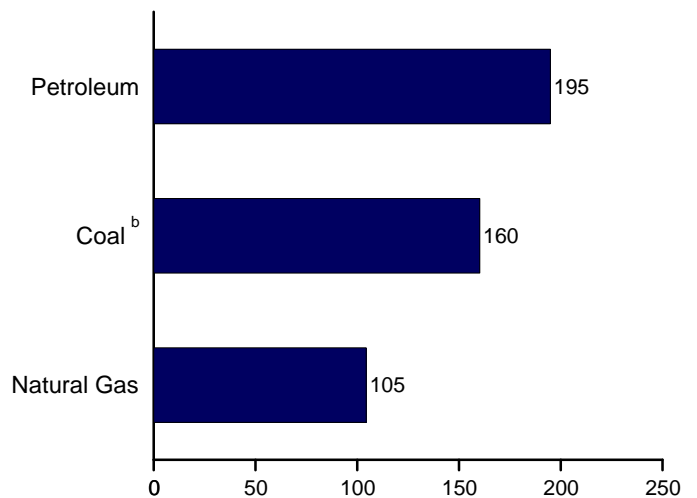
By Major Source, Monthly



Total,^a January–August



By Major Source, August 2014



^aExcludes emissions from biomass energy consumption.
^bIncludes coal coke net imports.

Web Page: <http://www.eia.gov/totalenergy/data/monthly/#environment>.
Source: Table 12.1.

Table 12.1 Carbon Dioxide Emissions From Energy Consumption by Source
(Million Metric Tons of Carbon Dioxide^a)

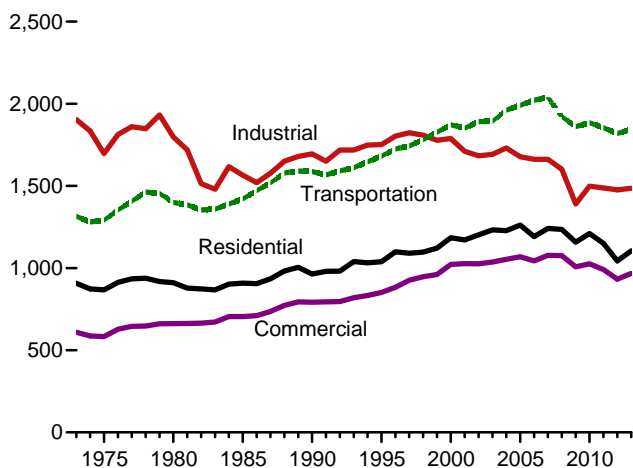
	Coal ^b	Natural Gas ^c	Petroleum										Total ^{h,i}	
			Aviation Gasoline	Distillate Fuel Oil ^d	Jet Fuel	Kero-sene	LPG ^e	Lubri-cants	Motor Gasoline ^f	Petroleum Coke	Residual Fuel Oil	Other ^g		Total
1973 Total	1,207	1,178	6	480	155	32	92	13	911	54	508	100	2,350	4,735
1975 Total	1,181	1,046	5	443	146	24	82	11	911	51	443	97	2,212	4,439
1980 Total	1,436	1,061	4	446	156	24	87	13	900	49	453	142	2,275	4,771
1985 Total	1,638	926	3	445	178	17	87	12	930	54	216	93	2,036	4,600
1990 Total	1,821	1,024	3	470	223	6	67	13	988	70	220	127	2,187	5,039
1995 Total	1,913	1,183	3	498	222	8	80	13	1,044	76	152	121	2,216	5,323
1996 Total	1,995	1,204	3	525	232	9	86	12	1,063	79	152	139	2,300	5,510
1997 Total	2,040	1,210	3	534	234	10	87	13	1,075	80	142	145	2,323	5,584
1998 Total	2,064	1,189	2	538	238	12	82	14	1,107	93	158	128	2,372	5,635
1999 Total	2,062	1,193	3	555	245	11	90	14	1,127	96	148	133	2,422	5,688
2000 Total	2,155	1,243	3	580	254	10	97	14	1,135	86	163	118	2,459	5,868
2001 Total	2,088	1,188	2	598	243	11	88	13	1,151	89	144	135	2,474	5,761
2002 Total	2,095	1,227	2	587	237	6	91	12	1,183	96	125	130	2,470	5,804
2003 Total	2,136	1,193	2	610	231	8	87	11	1,188	96	138	142	2,514	5,855
2004 Total	2,160	1,200	2	632	240	10	87	12	1,214	107	155	144	2,603	5,975
2005 Total	2,182	1,183	2	640	246	10	84	12	1,214	106	165	143	2,623	5,999
2006 Total	2,147	1,167	2	648	240	8	80	11	1,224	106	122	152	2,593	5,919
2007 Total	2,172	1,241	2	652	238	5	83	12	1,227	100	128	150	2,596	6,021
2008 Total	2,140	1,248	2	615	226	2	79	11	1,165	93	110	132	2,335	5,835
2009 Total	1,876	1,225	2	564	204	3	78	10	1,156	87	90	112	2,406	5,417
2010 Total	1,986	1,286	2	590	210	3	79	11	1,145	81	93	122	2,336	5,619
2011 Total	1,876	1,305	2	604	209	2	78	10	1,112	78	79	117	2,291	5,483
2012 January	142	R 147	(s)	51	16	(s)	8	1	88	7	7	9	188	R 479
February	R 128	134	(s)	48	16	(s)	7	1	87	5	5	10	180	442
March	118	114	(s)	49	17	(s)	7	1	93	6	6	9	188	420
April	107	104	(s)	47	16	(s)	6	1	91	6	6	8	181	R 394
May	127	100	(s)	49	18	(s)	6	1	97	7	5	8	191	R 419
June	R 143	100	(s)	47	19	(s)	6	1	94	7	5	10	188	431
July	170	110	(s)	47	18	(s)	6	1	95	6	7	10	190	471
August	163	107	(s)	49	18	(s)	6	1	99	8	6	10	196	R 468
September	138	96	(s)	47	17	(s)	6	1	90	7	5	7	179	R 415
October	133	101	(s)	51	17	(s)	7	1	94	6	5	11	190	426
November	140	116	(s)	49	17	(s)	7	1	89	7	5	11	184	R 441
December	R 147	134	(s)	46	17	(s)	8	1	91	7	3	12	185	466
Total	R 1,657	R 1,363	2	580	206	1	81	9	1,106	78	65	113	2,240	R 5,272
2013 January	150	R 155	(s)	53	16	(s)	9	1	90	7	5	9	191	R 497
February	135	R 138	(s)	47	15	(s)	8	1	82	5	4	9	170	444
March	141	R 135	(s)	49	17	(s)	8	1	93	5	7	8	189	R 467
April	123	R 105	(s)	49	17	(s)	7	1	92	5	4	9	184	R 413
May	131	93	(s)	49	18	(s)	6	1	97	7	4	11	193	418
June	149	R 93	(s)	46	18	(s)	6	1	95	7	4	9	186	R 429
July	164	R 103	(s)	47	19	(s)	7	1	99	7	5	11	196	464
August	162	R 103	(s)	48	19	(s)	6	1	99	7	6	9	195	R 461
September	145	94	(s)	47	17	(s)	6	1	93	7	5	12	189	429
October	134	R 100	(s)	53	18	(s)	8	1	96	6	4	9	195	R 430
November	133	R 124	(s)	49	17	(s)	8	1	93	7	5	11	192	R 450
December	154	R 157	(s)	51	18	(s)	9	1	93	6	3	11	191	502
Total	1,722	R 1,399	2	587	210	1	88	10	1,123	76	56	119	2,272	R 5,405
2014 January	165	R 174	(s)	56	17	(s)	10	1	88	8	4	9	192	R 533
February	152	R 149	(s)	49	15	(s)	7	1	85	5	3	10	175	R 477
March	145	R 138	(s)	53	18	(s)	7	1	94	4	3	9	190	R 474
April	119	R 105	(s)	50	17	(s)	6	1	94	6	4	10	188	R 413
May	129	R 97	(s)	51	17	(s)	5	1	97	7	3	9	192	R 419
June	148	R 94	(s)	49	19	(s)	6	1	94	6	4	9	187	R 431
July	161	R 102	(s)	50	19	(s)	6	1	99	7	4	9	196	R 459
August	160	105	(s)	50	19	(s)	6	1	100	7	3	9	195	461
8-Month Total	1,180	965	1	408	142	1	53	7	751	50	28	74	1,515	3,668
2013 8-Month Total	1,156	924	1	389	140	(s)	57	7	747	51	39	75	1,505	3,594
2012 8-Month Total	1,099	916	1	387	138	1	52	6	744	52	47	72	1,501	3,524

^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.
ⁱ Excludes emissions from biomass energy consumption. See Table 12.7.

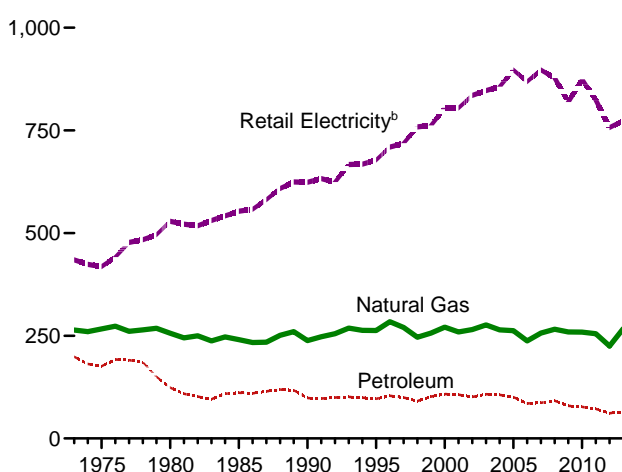
R=Revised. (s)=Less than 0.5 million metric tons.
 Notes: • Data are estimates for carbon dioxide emissions from energy consumption, including the nonfuel use of fossil fuels. See "Section 12 Methodology and Sources" at end of section. • See "Carbon Dioxide" in Glossary. • See Note 1, "Emissions of Carbon Dioxide and Other Greenhouse Gases," at end of section. • Data exclude emissions from biomass energy consumption. See Table 12.7 and Note 2, "Accounting for Carbon Dioxide Emissions From Biomass Energy Combustion," 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.gov/totalenergy/data/monthly/#environment> (Excel and CSV files) for all available annual and monthly 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)

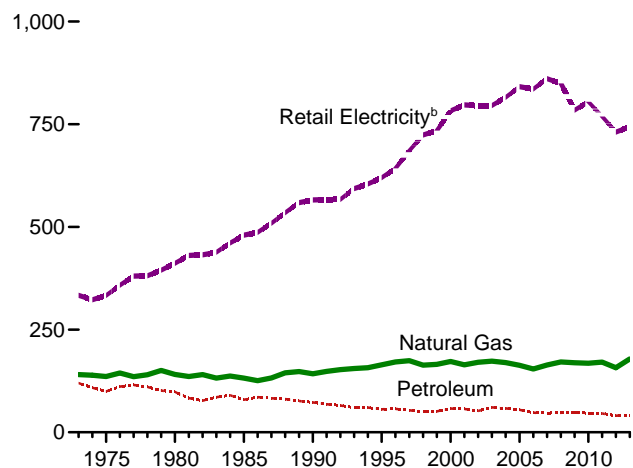
Total^a by End-Use Sector,^b 1973–2013



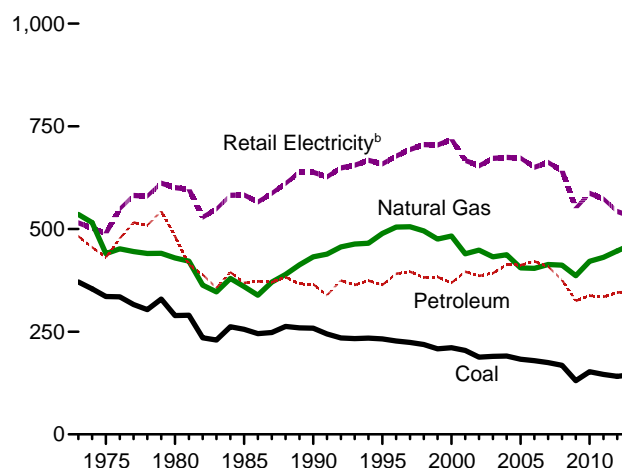
Residential Sector by Major Source, 1973–2013



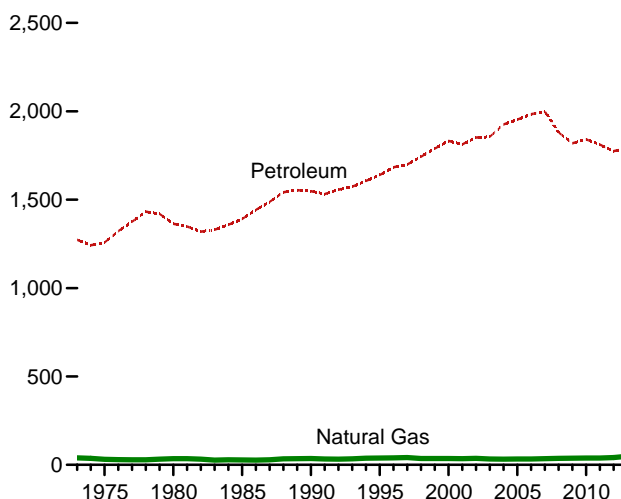
Commercial Sector by Major Source, 1973–2013



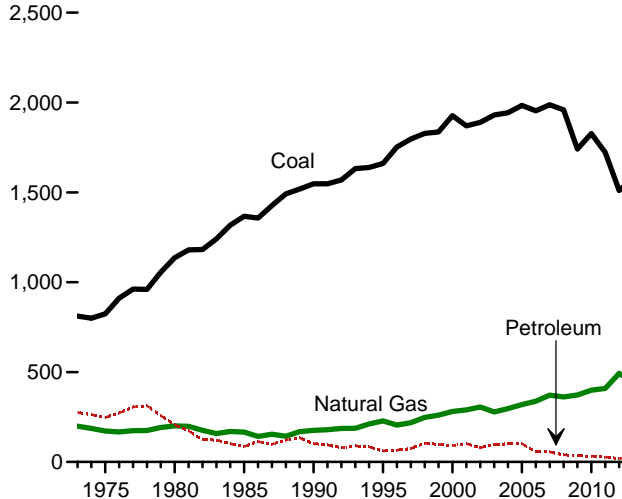
Industrial Sector by Major Source, 1973–2013



Transportation Sector by Major Source, 1973–2013



Electric Power Sector by Major Source, 1973–2013



^a Excludes emissions from biomass energy consumption.

^b 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.gov/totalenergy/data/monthly/#environment>.
Sources: Tables 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 ^f
			Distillate Fuel Oil ^c	Kerosene	LPG ^d	Total		
1973 Total	9	264	147	16	36	199	435	907
1975 Total	6	266	132	12	32	176	419	867
1980 Total	3	256	96	8	20	124	529	911
1985 Total	4	241	80	11	20	111	553	909
1990 Total	3	238	72	5	22	98	624	963
1995 Total	2	263	66	5	25	96	678	1,039
1996 Total	2	284	68	6	30	104	710	1,099
1997 Total	2	270	64	7	29	99	719	1,090
1998 Total	1	247	56	8	27	91	759	1,097
1999 Total	1	257	61	8	33	102	762	1,122
2000 Total	1	271	66	7	35	108	805	1,185
2001 Total	1	259	66	7	33	106	805	1,172
2002 Total	1	265	63	4	34	101	835	1,203
2003 Total	1	276	68	5	34	108	847	1,232
2004 Total	1	264	68	6	32	106	856	1,228
2005 Total	1	262	62	6	32	101	897	1,261
2006 Total	1	237	52	5	28	85	869	1,192
2007 Total	1	257	53	3	31	87	897	1,241
2008 Total	NA	266	55	2	35	92	878	1,235
2009 Total	NA	259	43	2	35	79	819	1,157
2010 Total	NA	259	41	2	33	77	875	1,210
2011 Total	NA	255	39	1	32	72	824	1,150
2012 January	NA	43	5	(s)	2	7	68	118
February	NA	36	4	(s)	2	6	57	100
March	NA	22	3	(s)	2	6	50	78
April	NA	15	2	(s)	2	4	44	64
May	NA	9	2	(s)	2	5	55	68
June	NA	7	2	(s)	2	4	69	80
July	NA	6	2	(s)	2	4	92	102
August	NA	6	3	(s)	2	5	85	95
September	NA	6	2	(s)	2	4	65	75
October	NA	13	2	(s)	2	4	53	71
November	NA	26	3	(s)	2	5	56	88
December	NA	36	3	(s)	2	6	65	107
Total	NA	225	36	1	25	61	757	1,044
2013 January	NA	48	6	(s)	3	8	72	128
February	NA	41	5	(s)	2	8	61	110
March	NA	36	5	(s)	2	7	62	106
April	NA	20	3	(s)	2	6	50	76
May	NA	11	2	(s)	2	4	51	66
June	NA	7	2	(s)	2	3	67	77
July	NA	6	2	(s)	2	4	83	93
August	NA	6	2	(s)	2	4	79	89
September	NA	6	2	(s)	2	4	67	77
October	NA	12	2	(s)	2	4	54	70
November	NA	28	3	(s)	2	5	54	88
December	NA	R 46	3	(s)	3	6	74	126
Total	NA	R 267	36	1	27	64	773	R 1,105
2014 January	NA	R 57	4	(s)	3	7	84	R 148
February	NA	46	4	(s)	2	6	73	126
March	NA	38	4	(s)	2	6	63	107
April	NA	19	2	(s)	2	4	47	70
May	NA	11	2	(s)	2	4	51	66
June	NA	7	2	(s)	2	4	66	76
July	NA	6	2	(s)	2	4	78	87
August	NA	6	2	(s)	2	4	78	87
8-Month Total	NA	189	21	(s)	17	38	540	768
2013 8-Month Total	NA	174	27	(s)	18	45	526	745
2012 8-Month Total	NA	143	25	(s)	16	42	519	705

^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.

^f Excludes emissions from biomass energy consumption. See Table 12.7.

R=Revised. NA=Not available. (s)=Less than 0.5 million metric tons.

Notes: • Data are estimates for carbon dioxide emissions from energy consumption. See "Section 12 Methodology and Sources" at end of section. • See "Carbon Dioxide" in Glossary. • See Note 1, "Emissions of Carbon Dioxide and Other Greenhouse Gases," at end of section. • Data exclude emissions from biomass energy consumption. See Table 12.7 and Note 2, "Accounting for Carbon Dioxide Emissions From Biomass Energy Combustion," 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.gov/totalenergy/data/monthly/#environment> (Excel and CSV files) for all available annual and monthly 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 ^g
			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	120	334	609
1975 Total	14	136	43	4	8	6	NA	39	100	333	583
1980 Total	11	141	38	3	6	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	73	566	793
1995 Total	11	164	35	2	7	1	(s)	11	56	620	851
1996 Total	12	171	35	2	8	2	(s)	11	57	643	883
1997 Total	12	174	32	2	8	3	(s)	9	54	686	926
1998 Total	9	164	31	2	7	3	(s)	7	51	724	947
1999 Total	10	165	32	2	9	2	(s)	6	51	735	960
2000 Total	9	173	36	2	9	3	(s)	7	58	783	1,022
2001 Total	9	164	37	2	9	3	(s)	6	57	797	1,027
2002 Total	9	170	32	1	9	3	(s)	6	52	795	1,026
2003 Total	8	173	36	1	10	4	(s)	9	61	796	1,037
2004 Total	10	170	34	1	10	3	(s)	10	58	816	1,054
2005 Total	9	163	33	2	8	3	(s)	9	55	842	1,069
2006 Total	6	154	29	1	8	3	(s)	6	48	836	1,043
2007 Total	7	164	28	1	8	4	(s)	6	47	861	1,078
2008 Total	8	171	28	(s)	10	3	(s)	6	47	850	1,076
2009 Total	7	169	29	(s)	9	4	(s)	6	47	785	1,008
2010 Total	7	168	29	(s)	9	4	(s)	5	46	805	1,026
2011 Total	6	171	29	(s)	9	3	(s)	4	46	769	991
2012 January	1	24	4	(s)	1	(s)	(s)	(s)	5	57	87
February	(s)	21	3	(s)	1	(s)	(s)	(s)	4	53	79
March	(s)	14	3	(s)	1	(s)	(s)	(s)	4	52	70
April	(s)	11	2	(s)	1	(s)	(s)	(s)	3	51	65
May	(s)	8	2	(s)	1	(s)	0	(s)	3	60	72
June	(s)	7	2	(s)	1	(s)	0	(s)	3	66	76
July	(s)	7	2	(s)	1	(s)	(s)	(s)	3	76	86
August	(s)	7	2	(s)	1	(s)	(s)	(s)	3	73	84
September	(s)	8	2	(s)	1	(s)	(s)	(s)	3	63	74
October	(s)	12	2	(s)	1	(s)	(s)	(s)	3	61	76
November	(s)	17	2	(s)	1	(s)	(s)	(s)	3	59	79
December	(s)	21	2	(s)	1	(s)	(s)	(s)	4	59	84
Total	4	157	26	(s)	9	3	(s)	2	40	731	933
2013 January	(s)	26	4	(s)	1	(s)	(s)	(s)	6	59	91
February	(s)	23	4	(s)	1	(s)	(s)	(s)	5	54	83
March	(s)	21	3	(s)	1	(s)	(s)	(s)	5	58	84
April	(s)	13	3	(s)	1	(s)	(s)	(s)	4	53	71
May	(s)	9	2	(s)	1	(s)	0	(s)	3	59	71
June	(s)	7	1	(s)	1	(s)	0	(s)	2	67	77
July	(s)	7	1	(s)	1	(s)	(s)	(s)	2	74	83
August	(s)	7	2	(s)	1	(s)	(s)	(s)	3	73	84
September	(s)	8	2	(s)	1	(s)	(s)	(s)	3	65	76
October	(s)	11	1	(s)	1	(s)	(s)	(s)	2	61	75
November	(s)	19	2	(s)	1	(s)	(s)	(s)	3	58	80
December	(s)	26	2	(s)	1	(s)	(s)	(s)	4	63	92
Total	4	R 178	27	(s)	9	3	(s)	2	41	744	968
2014 January	(s)	31	3	(s)	1	(s)	(s)	(s)	4	66	102
February	(s)	27	3	(s)	1	(s)	(s)	(s)	4	59	90
March	(s)	23	3	(s)	1	(s)	(s)	(s)	4	59	86
April	(s)	13	1	(s)	1	(s)	(s)	(s)	2	52	68
May	(s)	9	2	(s)	1	(s)	(s)	(s)	3	59	71
June	(s)	8	1	(s)	1	(s)	0	(s)	2	66	77
July	(s)	7	1	(s)	1	(s)	(s)	(s)	2	72	82
August	(s)	7	1	(s)	1	(s)	(s)	(s)	2	73	83
8-Month Total	3	125	15	(s)	6	2	(s)	1	24	506	659
2013 8-Month Total	3	115	20	(s)	6	2	(s)	2	29	497	645
2012 8-Month Total	3	100	19	(s)	6	2	(s)	2	28	488	619

^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 Excludes emissions from biomass energy consumption. See Table 12.7.

R=Revised. NA=Not available. (s)=Less than 0.5 million metric tons.

Notes: • Data are estimates for carbon dioxide emissions from energy consumption. See "Section 12 Methodology and Sources" at end of section. • See "Carbon Dioxide" in Glossary. • See Note 1, "Emissions of Carbon Dioxide and Other Greenhouse Gases," at end of section. • Data exclude emissions from biomass energy consumption. See Table 12.7 and Note 2, "Accounting for Carbon Dioxide Emissions From Biomass Energy Combustion," 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.gov/totalenergy/data/monthly/#environment> (Excel and CSV files) for all available annual and monthly 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 ^h
				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	536	106	11	44	7	18	52	144	100	483	515	1,904
1975 Total	336	2	440	97	9	39	6	16	51	117	97	431	490	1,697
1980 Total	289	-4	429	96	13	61	7	11	48	105	142	483	601	1,798
1985 Total	256	-2	360	81	3	59	6	15	54	57	93	369	583	1,566
1990 Total	258	1	432	84	1	37	7	13	67	31	127	366	638	1,695
1995 Total	233	7	489	82	1	47	7	14	67	25	121	364	659	1,751
1996 Total	227	3	505	87	1	48	6	14	71	24	139	391	678	1,803
1997 Total	224	5	505	88	1	50	7	15	70	21	145	396	694	1,824
1998 Total	219	8	495	88	2	47	7	14	80	16	128	382	706	1,809
1999 Total	208	7	475	86	1	47	7	11	85	14	133	383	704	1,778
2000 Total	211	7	483	87	1	52	7	11	76	17	118	369	719	1,788
2001 Total	204	3	440	95	2	45	6	21	79	14	135	396	667	1,711
2002 Total	188	7	448	88	1	47	6	22	79	13	130	386	654	1,683
2003 Total	190	6	432	85	2	41	6	23	78	16	142	393	672	1,692
2004 Total	191	16	437	88	2	44	6	26	84	18	144	413	675	1,731
2005 Total	183	5	405	92	3	42	6	25	81	20	143	412	673	1,678
2006 Total	179	7	404	92	2	43	6	26	84	16	152	421	650	1,662
2007 Total	175	3	414	92	1	43	6	21	82	13	150	408	662	1,662
2008 Total	168	5	412	99	(s)	32	6	17	77	13	132	376	642	1,602
2009 Total	131	-3	386	78	(s)	33	5	16	72	8	112	325	551	1,390
2010 Total	153	-1	421	85	1	35	6	18	67	6	122	338	587	1,498
2011 Total	146	1	431	91	(s)	34	5	17	63	6	117	335	574	1,487
2012 January	12	(s)	41	9	(s)	5	(s)	1	6	(s)	9	32	43	127
February	12	(s)	38	10	(s)	4	(s)	1	4	(s)	10	30	42	R 122
March	12	(s)	38	8	(s)	4	(s)	1	5	(s)	9	29	41	120
April	R 12	1	36	8	(s)	3	(s)	1	6	(s)	8	26	41	115
May	R 12	(s)	36	8	(s)	3	(s)	1	6	(s)	8	28	46	121
June	11	(s)	35	7	(s)	3	(s)	1	6	(s)	10	27	47	120
July	11	(s)	36	5	(s)	3	(s)	1	6	(s)	10	25	52	R 125
August	R 12	(s)	R 37	6	(s)	3	(s)	1	7	(s)	10	28	50	126
September	11	(s)	36	7	(s)	3	(s)	1	6	(s)	7	26	45	117
October	R 12	(s)	37	9	(s)	4	(s)	1	5	(s)	11	31	46	R 126
November	12	(s)	38	9	(s)	4	(s)	1	6	(s)	11	32	46	127
December	12	(s)	40	7	(s)	5	(s)	1	6	(s)	12	31	45	128
Total	R 141	(s)	R 447	94	(s)	45	5	16	69	3	113	345	543	R 1,476
2013 January	12	(s)	41	10	(s)	6	(s)	1	6	(s)	9	33	43	129
February	12	(s)	38	7	(s)	5	(s)	1	4	(s)	9	26	40	117
March	12	(s)	40	7	(s)	5	(s)	1	4	(s)	8	27	44	122
April	12	(s)	37	7	(s)	4	(s)	1	4	(s)	9	26	41	R 116
May	12	(s)	37	8	(s)	3	(s)	1	6	(s)	11	30	44	123
June	12	(s)	R 36	7	(s)	3	(s)	1	6	(s)	9	27	46	120
July	12	(s)	37	6	(s)	4	(s)	1	6	(s)	11	28	48	125
August	12	(s)	37	6	(s)	3	(s)	1	6	(s)	9	27	49	124
September	12	(s)	36	7	(s)	3	(s)	1	6	(s)	12	31	44	R 123
October	13	(s)	38	11	(s)	4	(s)	1	5	(s)	9	31	44	126
November	12	(s)	40	9	(s)	4	(s)	1	6	(s)	11	33	43	R 129
December	12	(s)	43	9	(s)	5	(s)	1	5	(s)	11	32	44	131
Total	145	-2	R 462	95	(s)	49	5	17	63	3	119	350	531	R 1,486
2014 January	12	(s)	R 45	13	(s)	6	(s)	1	7	(s)	9	36	45	R 137
February	12	(s)	R 41	10	(s)	4	(s)	1	4	(s)	10	30	41	123
March	12	(s)	R 43	10	(s)	4	(s)	1	3	(s)	9	29	43	R 127
April	12	(s)	R 40	10	(s)	3	(s)	1	5	(s)	10	31	40	R 121
May	12	(s)	R 39	9	(s)	2	(s)	1	6	(s)	9	29	44	R 123
June	12	(s)	R 38	8	(s)	3	(s)	1	5	(s)	9	27	46	R 122
July	R 11	(s)	R 39	8	(s)	3	(s)	1	6	(s)	9	29	48	R 127
August	12	(s)	39	8	(s)	3	(s)	1	6	(s)	9	27	49	127
8-Month Total	94	-1	322	77	(s)	28	3	11	41	1	74	236	356	1,007
2013 8-Month Total	96	-1	304	58	(s)	32	4	11	42	2	75	223	355	977
2012 8-Month Total	94	1	296	61	(s)	28	3	11	46	2	72	225	361	977

^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.
^h Excludes emissions from biomass energy consumption. See Table 12.7.

R=Revised. (s)=Less than 0.5 million metric tons and greater than -0.5 million metric tons.
 Notes: • Data are estimates for carbon dioxide emissions from energy consumption, including the nonfuel use of fossil fuels. See "Section 12 Methodology and Sources" at end of section. • See "Carbon Dioxide" in Glossary. • See Note 1, "Emissions of Carbon Dioxide and Other Greenhouse Gases," at end of section. • Data exclude emissions from biomass energy consumption. See Table 12.7 and Note 2, "Accounting for Carbon Dioxide Emissions From Biomass Energy Combustion," 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.gov/totalenergy/data/monthly/#environment> (Excel and CSV files) for all available annual and monthly 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 Elec- tricity ^f	Total ^g	
			Aviation Gasoline	Distillate Fuel Oil ^c	Jet Fuel	LPG ^d	Lubri- cants	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	1,292
1980 Total	(h)	34	4	204	155	1	6	881	110	1,363	2	1,400
1985 Total	(h)	28	3	232	178	2	6	908	62	1,391	3	1,421
1990 Total	(h)	36	3	268	223	1	7	967	80	1,548	3	1,588
1995 Total	(h)	38	3	307	222	1	6	1,029	72	1,639	3	1,681
1996 Total	(h)	39	3	327	232	1	6	1,047	67	1,683	3	1,725
1997 Total	(h)	41	3	342	234	1	6	1,057	56	1,699	3	1,744
1998 Total	(h)	35	2	352	238	1	7	1,090	53	1,743	3	1,782
1999 Total	(h)	36	3	366	245	1	7	1,115	52	1,789	3	1,828
2000 Total	(h)	36	3	378	254	1	7	1,121	70	1,833	4	1,872
2001 Total	(h)	35	2	387	243	1	6	1,127	46	1,813	4	1,852
2002 Total	(h)	37	2	394	237	1	6	1,158	53	1,851	4	1,892
2003 Total	(h)	33	2	409	231	1	6	1,161	45	1,856	5	1,893
2004 Total	(h)	32	2	434	240	1	6	1,185	58	1,926	5	1,962
2005 Total	(h)	33	2	444	246	2	6	1,186	66	1,953	5	1,991
2006 Total	(h)	33	2	469	240	2	5	1,194	71	1,984	5	2,022
2007 Total	(h)	35	2	472	238	1	6	1,201	78	1,999	5	2,040
2008 Total	(h)	37	2	427	226	3	5	1,145	73	1,881	5	1,922
2009 Total	(h)	38	2	408	204	2	5	1,136	62	1,819	5	1,862
2010 Total	(h)	38	2	429	210	2	5	1,123	70	1,842	5	1,885
2011 Total	(h)	39	2	441	209	2	5	1,092	61	1,812	4	1,855
2012 January	(h)	4	(s)	32	16	(s)	(s)	87	5	142	(s)	146
February	(h)	4	(s)	31	16	(s)	(s)	85	5	137	(s)	142
March	(h)	3	(s)	34	17	(s)	(s)	91	5	148	(s)	152
April	(h)	3	(s)	35	16	(s)	(s)	90	5	147	(s)	150
May	(h)	3	(s)	37	18	(s)	(s)	95	4	154	(s)	157
June	(h)	3	(s)	36	19	(s)	(s)	92	4	152	(s)	155
July	(h)	3	(s)	37	18	(s)	(s)	94	6	155	(s)	159
August	(h)	3	(s)	38	18	(s)	(s)	97	5	158	(s)	162
September	(h)	3	(s)	35	17	(s)	(s)	88	5	145	(s)	148
October	(h)	3	(s)	37	17	(s)	(s)	92	4	151	(s)	154
November	(h)	R 4	(s)	35	17	(s)	(s)	87	4	143	(s)	147
December	(h)	4	(s)	34	17	(s)	(s)	89	2	143	(s)	147
Total	(h)	41	2	420	206	2	5	1,087	53	1,774	4	1,819
2013 January	(h)	5	(s)	33	16	(s)	(s)	88	4	142	(s)	R 148
February	(h)	R 5	(s)	30	15	(s)	(s)	80	3	129	(s)	R 135
March	(h)	R 5	(s)	34	17	(s)	(s)	92	6	149	(s)	R 154
April	(h)	R 4	(s)	35	17	(s)	(s)	91	3	147	(s)	R 151
May	(h)	3	(s)	37	18	(s)	(s)	96	3	155	(s)	R 158
June	(h)	3	(s)	37	18	(s)	(s)	93	3	151	(s)	R 155
July	(h)	R 4	(s)	38	19	(s)	(s)	97	4	159	(s)	R 163
August	(h)	R 4	(s)	38	19	(s)	(s)	97	5	160	(s)	R 164
September	(h)	3	(s)	35	17	(s)	(s)	92	4	149	(s)	R 153
October	(h)	3	(s)	38	18	(s)	(s)	95	3	155	(s)	R 159
November	(h)	4	(s)	35	17	(s)	(s)	91	4	149	(s)	R 153
December	(h)	5	(s)	35	18	(s)	(s)	92	2	147	(s)	R 153
Total	(h)	R 49	2	425	210	3	5	1,103	45	1,792	4	R 1,845
2014 January	(h)	R 6	(s)	34	17	(s)	(s)	87	2	140	(s)	R 147
February	(h)	R 5	(s)	32	15	(s)	(s)	83	2	132	(s)	R 138
March	(h)	R 5	(s)	36	18	(s)	(s)	92	2	149	(s)	R 154
April	(h)	R 4	(s)	37	17	(s)	(s)	92	3	150	(s)	R 154
May	(h)	3	(s)	38	17	(s)	(s)	95	3	154	(s)	R 158
June	(h)	3	(s)	37	19	(s)	(s)	93	3	152	(s)	R 156
July	(h)	R 4	(s)	39	19	(s)	(s)	98	3	160	(s)	R 164
August	(h)	4	(s)	39	19	(s)	(s)	99	2	160	(s)	R 164
8-Month Total	(h)	33	1	291	142	2	3	738	19	1,197	3	1,234
2013 8-Month Total	(h)	32	1	281	140	2	3	734	31	1,192	3	1,227
2012 8-Month Total	(h)	28	1	280	138	2	3	731	39	1,193	3	1,224

^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 Excludes emissions from biomass energy consumption. See Table 12.7.
^h 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 for carbon dioxide emissions from energy consumption, including the nonfuel use of fossil fuels. See "Section 12 Methodology and Sources" at end of section. • See "Carbon Dioxide" in Glossary. • See Note 1, "Emissions of Carbon Dioxide and Other Greenhouse Gases," at end of section. • Data exclude emissions from biomass energy consumption. See Table 12.7 and Note 2, "Accounting for Carbon Dioxide Emissions From Biomass Energy Combustion," 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.gov/totalenergy/data/monthly/#environment> (Excel and CSV files) for all available annual and monthly 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 ^e
			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	1,548	176	7	3	92	102	(s)	6	1,831
1995 Total	1,661	228	8	8	45	61	(s)	10	1,960
1996 Total	1,752	205	8	8	50	66	(s)	10	2,033
1997 Total	1,797	219	8	10	56	75	(s)	10	2,101
1998 Total	1,828	248	10	13	82	105	(s)	10	2,192
1999 Total	1,836	260	10	11	76	97	(s)	10	2,204
2000 Total	1,927	281	13	10	69	91	(s)	10	2,310
2001 Total	1,870	290	12	11	79	102	(s)	11	2,273
2002 Total	1,890	306	9	18	52	79	(s)	13	2,288
2003 Total	1,931	278	12	18	69	98	(s)	11	2,319
2004 Total	1,943	297	8	23	69	100	(s)	11	2,352
2005 Total	1,984	319	8	25	69	102	(s)	11	2,417
2006 Total	1,954	338	5	22	28	56	(s)	12	2,359
2007 Total	1,987	372	7	17	31	55	(s)	11	2,426
2008 Total	1,959	362	5	16	19	40	(s)	12	2,374
2009 Total	1,741	373	5	14	14	34	(s)	11	2,159
2010 Total	1,828	399	6	15	12	33	(s)	11	2,271
2011 Total	1,723	409	5	15	7	27	(s)	11	2,171
2012 January	130	35	(s)	1	1	2	(s)	1	168
February	115	35	(s)	1	(s)	2	(s)	1	153
March	105	36	(s)	1	(s)	1	(s)	1	144
April	95	39	(s)	1	(s)	1	(s)	1	135
May	115	44	(s)	1	(s)	1	(s)	1	161
June	131	48	(s)	1	1	2	(s)	1	181
July	158	58	(s)	1	1	2	(s)	1	220
August	151	54	(s)	1	1	2	(s)	1	208
September	127	43	(s)	1	(s)	1	(s)	1	173
October	122	36	(s)	1	(s)	1	(s)	1	160
November	128	31	(s)	1	(s)	1	(s)	1	162
December	134	32	(s)	1	(s)	2	(s)	1	169
Total	1,511	493	4	9	6	19	(s)	11	2,035
2013 January	137	34	(s)	1	1	2	(s)	1	175
February	123	31	(s)	1	1	2	(s)	1	156
March	129	33	(s)	1	(s)	2	(s)	1	164
April	111	30	(s)	1	(s)	2	(s)	1	144
May	118	33	(s)	1	(s)	2	(s)	1	155
June	138	40	(s)	1	(s)	2	(s)	1	180
July	152	49	(s)	1	1	2	(s)	1	205
August	150	49	(s)	1	1	2	(s)	1	202
September	133	41	(s)	1	(s)	2	(s)	1	177
October	121	35	(s)	1	(s)	2	(s)	1	159
November	121	32	(s)	1	(s)	2	(s)	1	156
December	141	36	(s)	1	1	2	(s)	1	180
Total	1,575	442	4	13	6	23	(s)	11	2,053
2014 January	153	36	2	1	2	5	(s)	1	196
February	140	30	1	1	1	2	(s)	1	173
March	132	30	1	1	1	3	(s)	1	166
April	108	30	(s)	1	(s)	2	(s)	1	140
May	117	35	(s)	1	(s)	2	(s)	1	155
June	136	39	(s)	1	(s)	2	(s)	1	178
July	149	46	(s)	1	(s)	2	(s)	1	198
August	149	49	(s)	1	1	2	(s)	1	200
8-Month Total	1,084	294	5	9	6	19	(s)	8	1,406
2013 8-Month Total	1,059	299	3	9	4	16	(s)	8	1,381
2012 8-Month Total	1,000	349	3	6	4	13	(s)	8	1,371

^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.

^e Excludes emissions from biomass energy consumption. See Table 12.7.

NA=Not available. (s)=Less than 0.5 million metric tons.

Notes: • Data are estimates for carbon dioxide emissions from energy consumption. See "Section 12 Methodology and Sources" at end of section.

• See "Carbon Dioxide" in Glossary. • See Note 1, "Emissions of Carbon Dioxide and Other Greenhouse Gases," at end of section. • Data exclude emissions from biomass energy consumption. See Table 12.7 and Note 2, "Accounting for Carbon Dioxide Emissions From Biomass Energy Combustion," 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.gov/totalenergy/data/monthly/#environment> (Excel and CSV files) for all available annual and monthly data beginning in 1973.

Sources: See end of section.

Table 12.7 Carbon Dioxide Emissions From Biomass Energy Consumption
(Million Metric Tons of Carbon Dioxide^a)

	By Source					By Sector					
	Wood ^b	Biomass Waste ^c	Fuel Ethanol ^d	Bio-diesel	Total	Residential	Commercial ^e	Industrial ^f	Transportation	Electric Power ^g	Total
1973 Total	143	(s)	NA	NA	143	33	1	109	NA	(s)	143
1975 Total	140	(s)	NA	NA	141	40	1	100	NA	(s)	141
1980 Total	232	(s)	NA	NA	232	80	2	150	NA	(s)	232
1985 Total	252	14	3	NA	270	95	2	168	3	1	270
1990 Total	208	24	4	NA	237	54	8	147	4	23	237
1995 Total	222	30	8	NA	260	49	9	166	8	28	260
1996 Total	229	32	6	NA	266	51	10	170	6	30	266
1997 Total	222	30	7	NA	259	40	10	172	7	30	259
1998 Total	205	30	8	NA	242	36	9	160	8	30	242
1999 Total	208	29	8	NA	245	37	9	161	8	30	245
2000 Total	212	27	9	NA	248	39	9	161	9	29	248
2001 Total	188	33	10	(s)	231	35	9	147	10	31	231
2002 Total	187	36	12	(s)	235	36	9	144	12	35	235
2003 Total	188	36	16	(s)	240	38	9	141	16	37	240
2004 Total	199	35	20	(s)	255	38	10	151	20	36	255
2005 Total	200	37	23	1	261	40	10	150	23	37	261
2006 Total	197	36	31	2	266	36	9	151	33	38	266
2007 Total	196	37	39	3	276	39	9	146	41	39	276
2008 Total	193	39	55	3	290	44	10	139	57	40	290
2009 Total	181	41	62	3	287	47	10	125	64	41	287
2010 Total	186	42	73	2	303	41	10	136	74	42	303
2011 Total	189	42	73	8	312	42	11	139	80	40	312
2012 January	16	3	6	(s)	26	3	1	12	6	4	26
February	15	3	6	1	25	3	1	11	6	3	25
March	16	4	6	1	26	3	1	12	7	3	26
April	15	3	6	1	25	3	1	11	7	3	25
May	16	3	6	1	26	3	1	12	7	3	26
June	15	3	6	1	26	3	1	11	7	3	26
July	16	4	6	1	27	3	1	12	7	4	27
August	16	4	7	1	27	3	1	12	7	4	27
September	16	3	6	1	26	3	1	12	6	3	26
October	16	4	6	1	26	3	1	12	7	3	26
November	16	4	6	1	26	3	1	12	6	3	26
December	16	4	6	(s)	27	3	1	12	6	4	27
Total	189	42	73	8	312	39	10	141	80	42	312
2013 January	17	4	6	1	27	5	1	12	6	4	27
February	15	3	5	1	25	4	1	11	6	3	25
March	17	4	6	1	28	5	1	11	7	4	28
April	16	3	6	1	26	4	1	11	7	3	26
May	16	4	6	1	28	5	1	11	7	3	28
June	17	4	6	1	28	4	1	11	7	4	28
July	18	4	6	1	29	5	1	12	7	4	29
August	17	4	6	1	28	5	1	12	7	4	28
September	16	3	6	1	27	4	1	11	7	4	27
October	17	4	7	2	29	5	1	11	8	4	29
November	17	4	6	1	28	4	1	11	7	4	28
December	18	4	6	2	29	5	1	12	8	4	29
Total	201	43	75	13	332	54	11	137	87	43	332
2014 January	17	4	6	1	28	5	1	11	7	4	28
February	16	3	6	1	25	4	1	10	7	4	25
March	17	4	6	1	28	5	1	11	7	4	28
April	16	3	6	1	27	4	1	11	7	4	27
May	17	3	7	1	28	5	1	11	8	4	28
June	17	3	6	1	28	4	1	11	7	4	28
July	18	4	7	1	29	5	1	12	8	4	29
August	18	4	7	1	29	5	1	12	8	4	29
8-Month Total	136	28	50	8	222	36	7	90	58	31	222
2013 8-Month Total	133	29	49	7	218	36	7	91	56	28	218
2012 8-Month Total	125	28	49	6	208	26	7	93	54	28	208

^a Metric tons of carbon dioxide can be converted to metric tons of carbon equivalent by multiplying by 12/44.
^b Wood and wood-derived fuels.
^c Municipal solid waste from biogenic sources, landfill gas, sludge waste, agricultural byproducts, and other biomass.
^d Fuel ethanol minus denaturant.
^e Commercial sector, including commercial combined-heat-and-power (CHP) and commercial electricity-only plants.
^f Industrial sector, including industrial combined-heat-and-power (CHP) and industrial electricity-only plants.
^g 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.

NA=Not available. (s)=Less than 0.5 million metric tons.
 Notes: • Carbon dioxide emissions from biomass energy consumption are excluded from the energy-related carbon dioxide emissions reported in Tables 12.1–12.6. See Note 2, "Accounting for Carbon Dioxide Emissions From Biomass Energy Combustion," at end of section. • Data are estimates. See "Section 12 Methodology and Sources" at end of section. • See "Carbon Dioxide" in Glossary. • See Note 1, "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.gov/totalenergy/data/monthly/#environment> (Excel and CSV files) for all available annual and monthly data beginning in 1973.
 Sources: See end of section.

Environment

Note 1. 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, including the nonfuel use of fossil fuels (excluded are estimates for CO₂ emissions from biomass energy consumption, which appear in Table 12.7).

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.gov/environment/emissions/ghg_report/.

Note 2. Accounting for Carbon Dioxide Emissions From Biomass Energy Combustion. Carbon dioxide (CO₂) emissions from the combustion of biomass to produce energy are excluded from the energy-related CO₂ emissions reported in MER Tables 12.1–12.6, but appear in Table 12.7. According to current international convention (see the Intergovernmental Panel on Climate Change's "2006 IPCC Guidelines for National Greenhouse Gas Inventories"), carbon released through biomass combustion is excluded from reported energy-related emissions. The release of carbon from biomass combustion is assumed to be balanced by the uptake of carbon when the feedstock is grown, resulting in zero net emissions over some period of time. (This is not to say that biomass energy is carbon-neutral. Energy inputs are required in order to grow, fertilize, and harvest the feedstock and to produce and process the biomass into fuels.)

However, analysts have debated whether increased use of biomass energy may result in a decline in terrestrial carbon stocks, leading to a net positive release of carbon rather than the zero net release assumed by its exclusion from reported energy-related emissions. For example, the clearing of forests for biofuel crops could result in an initial release of carbon that is not fully recaptured in subsequent use of the land for agriculture.

To reflect the potential net emissions, the international convention for greenhouse gas inventories is to report

biomass emissions in the category "agriculture, forestry, and other land use," usually based on estimates of net changes in carbon stocks over time.

This indirect accounting of CO₂ emissions from biomass can potentially lead to confusion in accounting for and understanding the flow of CO₂ emissions within energy and non-energy systems. In recognition of this issue, reporting of CO₂ emissions from biomass combustion alongside other energy-related CO₂ emissions offers an alternative accounting treatment. It is important, however, to avoid misinterpreting emissions from fossil energy and biomass energy sources as necessarily additive. Instead, the combined total of direct CO₂ emissions from biomass and energy-related CO₂ emissions implicitly assumes that none of the carbon emitted was previously or subsequently reabsorbed in terrestrial sinks or that other emissions sources offset any such sequestration.

Section 12 Methodology and Sources

To estimate carbon dioxide emissions from energy consumption for the *Monthly Energy Review (MER)*, Tables 12.1–12.7, the U.S. Energy Information Administration (EIA) uses the following methodology and sources:

Step 1. Determine 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–3.7c. 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 motor gasoline).

Biomass—Sectoral consumption data in trillion Btu for wood, biomass waste, fuel ethanol (minus denaturant), and biodiesel are from MER Tables 10.2a–10.2c.

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 developed by EIA using the methodology

detailed in “Documentation for *Emissions of Greenhouse Gases in the United States 2008*” at [http://www.eia.gov/oiaf/1605/ggprt/documentation/pdf/0638\(2008\).pdf](http://www.eia.gov/oiaf/1605/ggprt/documentation/pdf/0638(2008).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 (CO₂) emissions data in million metric tons 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.gov/oiaf/1605/ggprt/excel/CO2_coefs_09_v2.xls. Beginning in 2010, the 2009 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.

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.

Geothermal and Non-Biomass Waste—Annual CO₂ emissions data for geothermal and non-biomass waste are EIA estimates based on Form EIA-923, “Power Plant Operations Report” (and predecessor forms). 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.)

Biomass—CO₂ emissions for wood, biomass waste, fuel ethanol (minus denaturant), and biodiesel are calculated for each sector. Total emissions for each biomass fuel are the sum of the sectoral emissions. The following factors, in million metric tons CO₂ per quadrillion Btu, are used: wood—93.80; biomass waste—90.70; fuel ethanol—68.44; and biodiesel—73.84. For 1973–1988, the biomass portion

of waste in MER Tables 10.2a–10.2c is estimated as 67 percent; for 1989–2000, the biomass portion of waste is estimated as 67 percent in 1989 to 58 percent in 2000, based on the biogenic shares of total municipal solid waste shown in EIA’s “Methodology for Allocating Municipal Solid Waste to Biogenic and Non-Biogenic Energy,” Table 1 at <http://www.eia.gov/totalenergy/data/monthly/pdf/historical/msw.pdf>.

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Appendix A

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	Naptha 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.gov/totalenergy/data/monthly/#appendices>.

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
1950	5.800	4.522	5.943	6.263	6.080	5.800	5.751	5.766
1955	5.800	4.406	5.924	6.234	6.040	5.800	5.765	5.768
1960	5.800	4.295	5.911	6.161	6.021	5.800	5.835	5.834
1965	5.800	4.264	5.872	6.123	5.997	5.800	5.742	5.743
1970	5.800	4.146	5.822	6.088	5.985	5.800	5.811	5.810
1975	5.800	3.984	5.821	5.935	5.858	5.800	5.747	5.748
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	5.800	3.692	5.988	5.525	5.882	5.800	5.737	5.738
2010	5.800	3.674	5.989	5.557	5.894	5.800	5.670	5.672
2011	5.800	3.672	6.008	5.507	5.896	5.800	5.596	5.599
2012	5.800	3.683	6.165	5.514	6.038	5.800	5.583	5.587
2013	5.800	3.786	6.010	5.458	5.890	5.800	5.506	5.516
2014 ^E	5.800	3.786	6.010	5.458	5.890	5.800	5.506	5.516

^a Includes lease condensate.

E=Estimate.

Note: The values in this table are for gross heat contents. See "Heat Content" in Glossary.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#appendices> (Excel and CSV files) for all available annual data beginning in 1949.

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		
1950	1,119	1,035	1,035	1,035	1,035	--	1,035
1955	1,120	1,035	1,035	1,035	1,035	1,035	1,035
1960	1,107	1,035	1,035	1,035	1,035	1,035	1,035
1965	1,101	1,032	1,032	1,032	1,032	1,032	1,032
1970	1,102	1,031	1,031	1,031	1,031	1,031	1,031
1975	1,095	1,021	1,020	1,026	1,021	1,026	1,014
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	1,103	1,024	1,025	1,020	1,024	1,022	1,008
2003	1,103	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	1,102	1,027	1,027	1,027	1,027	1,025	1,009
2008	1,100	1,027	1,027	1,027	1,027	1,025	1,009
2009	1,101	1,025	1,025	1,025	1,025	1,025	1,009
2010	1,098	1,023	1,023	1,022	1,023	1,025	1,009
2011	1,142	1,022	1,022	1,021	1,022	1,025	1,009
2012	^R 1,091	1,024	1,025	1,022	1,024	1,025	1,009
2013	^R 1,100	^R 1,027	^R 1,028	^P 1,025	^{RP} 1,027	1,025	1,009
2014	^{RE} 1,100	^{RE} 1,027	^{RE} 1,028	^E 1,025	^{RE} 1,027	^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.

R=Revised. P=Preliminary. E=Estimate. -- =Not applicable.

Note: The values in this table are for gross heat contents. See "Heat Content" in Glossary.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#appendices> (Excel and CSV files) for all available annual data beginning in 1949.

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 ^c	Industrial Sector		Electric Power Sector ^{e,f}	Total				
				Coke Plants	Other ^d						
1950	25.090	NA	24.461	26.798	24.820	23.937	24.989	25.020	26.788	24.800	
1955	25.201	NA	24.373	26.794	24.821	24.056	24.982	25.000	26.907	24.800	
1960	24.906	NA	24.226	26.791	24.609	23.927	24.713	25.003	26.939	24.800	
1965	24.775	NA	24.028	26.787	24.385	23.780	24.537	25.000	26.973	24.800	
1970	23.842	NA	23.203	26.784	22.983	22.573	23.440	25.000	26.982	24.800	
1975	22.897	NA	22.261	26.782	22.436	21.642	22.506	25.000	26.562	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	^e 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	^c 23.035	26.281	22.304	19.713	19.979	25.000	25.399	24.800	
2009	19.963	12.076	22.852	26.334	21.823	19.521	19.741	25.000	25.633	24.800	
2010	20.173	11.960	22.611	26.295	21.846	19.623	19.870	25.000	25.713	24.800	
2011	20.142	11.604	22.099	26.299	21.568	19.341	19.600	25.000	25.645	24.800	
2012	20.215	11.539	21.300	^R 28.636	21.449	19.211	^R 19.544	23.128	24.551	24.800	
2013 ^P	20.187	12.428	21.233	28.705	21.623	19.210	19.548	23.367	24.604	24.800	
2014 ^E	20.187	12.428	21.233	28.705	21.623	19.210	19.548	23.367	24.604	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 Through 2007, used as the thermal conversion factor for coal consumption by the residential and commercial sectors. Beginning in 2008, used as the thermal conversion factor for coal consumption by the commercial sector only.

^d Includes transportation. Excludes coal synfuel plants.

^e 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.

^f Electric power sector factors are for anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and, beginning in 1998, coal synfuel.

R=Revised. 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: See <http://www.eia.gov/totalenergy/data/monthly/#appendices> (Excel and CSV files) for all available annual data beginning in 1949.

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 ^j of Electricity ^k
	Fossil Fuels ^b				Nuclear ^h	Noncombustible Renewable Energy ^{g,i}	
	Coal ^c	Petroleum ^d	Natural Gas ^e	Total Fossil Fuels ^{f,g}			
1950	NA	NA	NA	14,030	--	14,030	3,412
1955	NA	NA	NA	11,699	--	11,699	3,412
1960	NA	NA	NA	10,760	11,629	10,760	3,412
1965	NA	NA	NA	10,453	11,804	10,453	3,412
1970	NA	NA	NA	10,494	10,977	10,494	3,412
1975	NA	NA	NA	10,406	11,013	10,406	3,412
1980	NA	NA	NA	10,388	10,908	10,388	3,412
1981	NA	NA	NA	10,453	11,030	10,453	3,412
1982	NA	NA	NA	10,454	11,073	10,454	3,412
1983	NA	NA	NA	10,520	10,905	10,520	3,412
1984	NA	NA	NA	10,440	10,843	10,440	3,412
1985	NA	NA	NA	10,447	10,622	10,447	3,412
1986	NA	NA	NA	10,446	10,579	10,446	3,412
1987	NA	NA	NA	10,419	10,442	10,419	3,412
1988	NA	NA	NA	10,324	10,602	10,324	3,412
1989	NA	NA	NA	10,432	10,583	10,432	3,412
1990	NA	NA	NA	10,402	10,582	10,402	3,412
1991	NA	NA	NA	10,436	10,484	10,436	3,412
1992	NA	NA	NA	10,342	10,471	10,342	3,412
1993	NA	NA	NA	10,309	10,504	10,309	3,412
1994	NA	NA	NA	10,316	10,452	10,316	3,412
1995	NA	NA	NA	10,312	10,507	10,312	3,412
1996	NA	NA	NA	10,340	10,503	10,340	3,412
1997	NA	NA	NA	10,213	10,494	10,213	3,412
1998	NA	NA	NA	10,197	10,491	10,197	3,412
1999	NA	NA	NA	10,226	10,450	10,226	3,412
2000	NA	NA	NA	10,201	10,429	10,201	3,412
2001	10,378	10,742	10,051	10,333	10,443	10,333	3,412
2002	10,314	10,641	9,533	10,173	10,442	10,173	3,412
2003	10,297	10,610	9,207	10,125	10,422	10,125	3,412
2004	10,331	10,571	8,647	10,016	10,428	10,016	3,412
2005	10,373	10,631	8,551	9,999	10,436	9,999	3,412
2006	10,351	10,809	8,471	9,919	10,435	9,919	3,412
2007	10,375	10,794	8,403	9,884	10,489	9,884	3,412
2008	10,378	11,015	8,305	9,854	10,452	9,854	3,412
2009	10,414	10,923	8,159	9,760	10,459	9,760	3,412
2010	10,415	10,984	8,185	9,756	10,452	9,756	3,412
2011	10,444	10,829	8,152	9,716	10,464	9,716	3,412
2012	10,498	10,991	8,039	9,516	10,479	9,516	3,412
2013	E 10,498	E 10,991	E 8,039	E 9,516	E 10,479	E 9,516	3,412
2014	E 10,498	E 10,991	E 8,039	E 9,516	E 10,479	E 9,516	3,412

^a The values in columns 1–6 of this table are for net heat rates. See "Heat Rate" in Glossary.

^b 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.

^c Includes anthracite, bituminous coal, subbituminous coal, lignite, and, beginning in 2002, waste coal and coal symfuel.

^d Includes distillate fuel oil, residual fuel oil, jet fuel, kerosene, petroleum coke, and waste oil.

^e Includes natural gas and supplemental gaseous fuels.

^f Includes coal, petroleum, natural gas, and, beginning in 2001, other gases (blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels).

^g The fossil-fuels heat rate is used as the thermal conversion factor for electricity net generation from noncombustible renewable energy (hydro, geothermal, solar thermal, photovoltaic, and wind) 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.

^h Used as the thermal conversion factor for nuclear electricity net generation.

ⁱ Technology-based geothermal heat rates are no longer used in Btu calculations in this report. For technology-based geothermal heat rates for 1960–2010, see the *Annual Energy Review 2010*, Table A6.

^j See "Heat Content" in Glossary.

^k 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. NA=Not available. -- =Not applicable.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#appendices> (Excel and CSV files) for all available annual data beginning in 1949.

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. • 1949–1966: U.S. Department of the Interior, Bureau of Mines, Mineral Industry Surveys, “Crude Petroleum and Petroleum Products, 1956,” Table 4 footnote, constant value of 4.011 million Btu per barrel. • 1967 forward: Calculated annually by EIA as 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 1967–1980, 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 (New). • 1949–1992: 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 Markets 1947–1985*, a 1968 release of historical and projected statistics. • 1993–2006: Calculated by EIA as the

annual quantity-weighted average of the conversion factors for gasoline blendstock and the oxygenates blended into motor gasoline. The factor for gasoline blendstock is 5.253 million Btu per barrel (the motor gasoline factor used for previous years). The factors for fuel ethanol are shown in Table A3 (see **Fuel Ethanol, Denatured**). The following factors for other oxygenates are from U.S. Department of Energy, Argonne National Laboratory, “The Greenhouse Gases, Regulated Emissions, and Energy Use in Transportation Model” (GREET), version GREET1_2013, October 2013—methyl tertiary butyl ether (MTBE): 101,130 Btu per gallon; tertiary amyl methyl ether (TAME): 108,570 Btu per gallon; ethyl tertiary butyl ether (ETBE): 104,530 Btu per gallon; methanol: 65,200 Btu per gallon; and butanol: 108,458 Btu per gallon. • 2007 forward: Calculated by EIA as the annual quantity-weighted average of the conversion factors for gasoline blendstock and fuel ethanol blended into motor gasoline. The factor for gasoline blendstock is 124,340 Btu per gallon, which is from the GREET model (see above). The factors for fuel ethanol are shown in Table A3 (see **Fuel Ethanol, Denatured**).

Motor Gasoline Consumption (Old). • 1949–1993: 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 or 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 or 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 or 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.gov/state/seds/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.gov/state/seds/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.gov/state/seds/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.gov/state/seds/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: EIA used the 2009 factor. • 2009 forward: 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 and motor gasoline blending components used as denaturant (5.253 million Btu per barrel). The quantity of ethanol consumed is from EIA’s *Petroleum Supply Annual (PSA)* and *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 PSA/PSM, Table 1, data for renewable fuels and oxygenate plant net production of

pentanes plus, multiplied by -1. The quantity of conventional motor gasoline and motor gasoline blending components used as denaturant is from PSA/PSM, Table 1, data for renewable fuels and oxygenate plant net production of conventional motor gasoline and motor gasoline blending components, 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. • 1949–1962: EIA adopted the thermal conversion factor of 1,035 Btu per cubic foot as estimated by the Bureau of Mines and first published in the *Petroleum Statement, Annual, 1956*. • 1963–1979: 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. • 1949–1972: Assumed by EIA to be equal to the thermal conversion factor for dry natural gas consumed (see **Natural Gas Consumption, Total**). • 1973 forward: 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. • 1949–1972: Assumed by EIA to be equal to the thermal conversion factor for dry natural gas consumed (see **Natural Gas Consumption, Total**).

• 1973 forward: 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.

• 1949–2011: Calculated annually by EIA based on the reported volatility (low, medium, or high) of coal received by coke plants. (For 2011, EIA used the following volatility factors, in million Btu per short ton: low volatile—26.680; medium volatile—27.506; and high volatile—25.652.) Data are from Form EIA-5, “Quarterly Coal Consumption and Quality Report—Coke Plants,” and predecessor forms. • 2012 forward: Calculated annually by EIA by dividing the heat content of coal received by coke plants by the quantity received. Data are from Form EIA-5, “Quarterly Coal Consumption and Quality Report—Coke Plants.”

Coal Consumption, Industrial Sector, Other.

• 1949–2007: Calculated annually by EIA by dividing the heat content of coal received by manufacturing plants by the quantity received. Data are from Form EIA-3, “Quarterly Coal Consumption and Quality Report—Manufacturing Plants,” and predecessor forms. • 2008 forward: Calculated annually by EIA by dividing the heat content of coal received by manufacturing, gasification, and liquefaction plants by the quantity received. Data are from Form EIA-3, “Quarterly Coal Consumption and Quality Report—Manufacturing and Transformation/Processing Coal Plants and Commercial and Institutional Users.”

Coal Consumption, Residential and Commercial Sectors. • 1949–1999: Calculated annually by EIA by

dividing the heat content of coal received by the residential and commercial sectors by the quantity received. Data are from Form EIA-6, “Coal Distribution Report,” and predecessor forms. • 2000–2007: Calculated annually by EIA by dividing the heat content of coal consumed by commercial combined-heat-and-power (CHP) plants by the quantity consumed. Data are from Form EIA-923, “Power Plant Operations Report,” and predecessor forms. • 2008 forward: Calculated annually by EIA by dividing the heat content of coal received by commercial and institutional users by the quantity received. Data are from Form EIA-3, “Quarterly Coal Consumption and Quality Report—Manufacturing and Transformation/Processing Coal Plants and Commercial and Institutional Users.”

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. • 1949–2011: 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,” and predecessor forms. • 2012 forward: Calculated annually by EIA by dividing the heat content of steam coal and metallurgical coal exported by the quantity exported. The average heat content of steam coal is derived from receipts data from Form EIA-3, “Quarterly Coal Consumption and Quality Report—Manufacturing and Transformation/Processing Coal Plants and Commercial and Institutional Users,” and Form EIA-923, “Power Plant Operations Report.” The average heat content of metallurgical coal is derived from receipts data from Form EIA-5, “Quarterly Coal Consumption and Quality Report—Coke Plants.” Data for export quantities are from U.S. Department of Commerce, Bureau of the Census, “Monthly Report EM 545.”

Coal Imports. • 1949–1963: Calculated annually by EIA by dividing the heat content of coal imported by the quantity imported. Data are from U.S. Department of Commerce, Bureau of the Census, “Monthly Report IM 145,” and predecessor forms. • 1964–2011: Assumed by EIA to be 25,000 million Btu per short ton. • 2012 forward: Calculated annually by EIA by dividing the heat content of coal imported (received) by the quantity imported (received). Data are from Form EIA-3, “Quarterly Coal Consumption and Quality Report—Manufacturing and Transformation/Processing Coal Plants and Commercial and Institutional Users”; Form EIA-5, “Quarterly Coal Consumption and Quality Report—Coke Plants”; and Form EIA-923, “Power Plant Operations Report.”

Coal Production. • 1949–2011: Calculated annually by EIA by dividing the heat content of domestic coal (excluding waste coal) received by the quantity received. Data are from Form EIA-3, “Quarterly Coal Consumption and Quality Report—Manufacturing and Transformation/Processing Coal Plants and Commercial and Institutional

Users”; Form EIA-5, “Quarterly Coal Consumption and Quality Report—Coke Plants”; Form EIA-923, “Power Plant Operations Report”; and predecessor forms. • 2012 forward: Calculated annually by EIA by dividing the heat content of domestic coal (excluding waste coal) received and exported by the quantity received and exported. Data are from Form EIA-3, “Quarterly Coal Consumption and Quality Report—Manufacturing and Transformation/Processing Coal Plants and Commercial and Institutional Users”; Form EIA-5, “Quarterly Coal Consumption and Quality Report—Coke Plants”; Form EIA-923, “Power Plant Operations Report”; U.S. Department of Commerce, Bureau of the Census, “Monthly Report EM 545”; and predecessor forms.

Waste Coal Supplied. • 1989–2000: Calculated annually by EIA by dividing the heat content of waste coal consumed by the quantity consumed. Data are from Form EIA-860B, “Annual Electric Generator Report—Nonutility,” and predecessor form. • 2001 forward: Calculated by EIA by dividing the heat content of waste coal received (or consumed) by the quantity received (or consumed). Receipts data are from Form EIA-3, “Quarterly Coal Consumption and Quality Report—Manufacturing and Transformation/Processing Coal Plants and Commercial and Institutional Users,” and predecessor form. Consumption data are from Form EIA-923, “Power Plant Operations Report,” and predecessor forms.

Approximate Heat Rates for Electricity

Electricity Net Generation, Coal. • 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 anthracite, bituminous coal, subbituminous coal, lignite, and beginning in 2002, waste coal and coal synfuel.

Electricity Net Generation, Natural Gas. • 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 natural gas and supplemental gaseous fuels.

Electricity Net Generation, Noncombustible Renewable Energy. There is no generally accepted practice for measuring the thermal conversion rates for power plants that generate electricity from hydro, geothermal, solar thermal, photovoltaic, and wind 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 (see “Electricity Net Generation, Total Fossil Fuels”). By using that factor it is possible to evaluate fossil fuel requirements for replacing those sources during periods of interruption, such as droughts.

Electricity Net Generation, Nuclear. • 1957–1984: 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 data reported on Form EIA-860, “Annual Electric Generator Report,” and predecessor forms.

Electricity Net Generation, Petroleum. • 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 distillate fuel oil, residual fuel oil, jet fuel, kerosene, petroleum coke, and waste oil.

Electricity Net Generation, Total Fossil Fuels.

• 1949–1955: The weighted annual average heat rate for fossil-fueled steam-electric power plants in the United States, as published by EIA in *Thermal-Electric Plant Construction Cost and Annual Production Expenses—1981* and *Steam-Electric Plant Construction Cost and Annual Production Expenses—1978*. • 1956–1988: 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 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 coal, petroleum, natural gas, and other gases (blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels).

Appendix B

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. 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.gov/totalenergy/data/monthly/#appendices>.

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.gov/totalenergy/data/monthly/#appendices>.

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.gov/totalenergy/data/monthly/#appendices>.

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.

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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 quantity of **natural gas** needed to maintain adequate reservoir pressures and deliverability rates throughout the withdrawal season. Base gas usually is not withdrawn and remains in the reservoir. All natural gas native to a depleted reservoir 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.gov/totalenergy/data/monthly/#appendices> 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**.

Citygate: 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.gov/ncic/datadefinitions/Guideforwebcom.htm>. 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 Hydroelectric Power: Hydroelectric power generated from flowing water that is not created by **hydroelectric pumped storage**.

Conventional Motor Gasoline: See **Motor Gasoline Conventional**.

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.gov/totalenergy/data/monthly/#appendices> 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.

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 kilowatt-hour 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 kilowatt-hour**. *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.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**.

Kilowatt-hour (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 kilowatt-hour is equivalent to 3,412 Btu. See **Watt-hour**.

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: Light liquid **hydrocarbons** recovered from lease separators or field facilities at associated and non-associated **natural gas** wells. Mostly pentanes and heavier hydrocarbons. Normally enters the **crude oil** stream after production.

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): A group of **hydrocarbon** gases, primarily **propane**, normal butane, and **isobutane**, derived from **crude oil** refining or **natural gas** processing. These gases may be marketed individually or mixed. They can be liquefied through pressurization (without requiring cryogenic refrigeration) for convenience of transportation or storage. Excludes **ethane** and olefins. Note: In some EIA publications, LPG includes ethane and marketed refinery olefin streams, in accordance with definitions used prior to January 2014.

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): See **Natural Gas Marketed Production**.

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, Conventional: **Finished motor gasoline** not included in the **oxygenated** or **reformulated** motor gasoline categories. *Note:* This category excludes reformulated gasoline blendstock for oxygenate blending (RBOB) as well as other blendstock. Conventional motor gasoline can be leaded or unleaded; regular, midgrade, or premium. See **Motor Gasoline Grades**.

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/eos/www/naics/>.

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) **vented natural gas** and **flared natural gas**. 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 **natural gas plant liquids**. Volumes of dry gas withdrawn from gas storage reservoirs are not considered part of production. Dry natural gas production equals **natural gas marketed production** less **natural gas plant liquids** production.

Natural Gas Marketed Production: Gross withdrawals of **natural gas** from production reservoirs, less gas used for reservoir **repressuring**; **nonhydrocarbon gases** removed in treating and processing operations; and quantities of **vented natural gas** and **flared natural gas**.

Natural Gas Plant Liquids (NGPL): Those **hydrocarbons** in **natural gas** that are separated as liquids at natural gas processing, fractionating, and cycling plants. Products obtained include **ethane**, **liquefied petroleum gases (propane, normal butane, and isobutane)**, and **natural gasoline**. Component products may be fractionated or mixed. **Lease condensate** and **plant condensate** are excluded. *Note:* Some EIA publications categorize NGPL production as field production, in accordance with definitions used prior to January 2014.

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 commodity product commonly traded in **natural gas liquids (NGL)** markets that comprises liquid **hydrocarbons** (mostly pentanes and hexanes) and generally remains liquid at ambient temperatures and atmospheric pressure. Natural gasoline is equivalent to **pentanes plus**.

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): An international organization helping governments tackle the economic, social and governance challenges of a globalized economy. Its membership comprises about 30 member countries. With active relationships with some 70 other countries, non-governmental organizations (NGOs) and civil society, it has a global reach. For details about the organization, see <http://www.oecd.org>.

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 liquid **hydrocarbons**, mostly pentanes and heavier, extracted from **natural gas** in a gas processing plant. Pentanes plus is equivalent to **natural gasoline**.

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 fossil-fueled 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). See **Total Energy Consumption**.

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 fossil-fueled 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.gov/naic/datadefinitions/Guideforwebres.htm>. 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, **still 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**.

Total Energy Consumption: Primary energy consumption in the **end-use sectors**, plus **electricity retail sales** and **electrical system energy losses**.

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.gov/neic/datadefinitions/Guideforwebtrans.htm> 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: **Natural 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 quantity of **natural gas** in the reservoir that is in addition to the cushion or **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. Volumes of working gas are reported in thousand cubic feet at standard temperature and pressure.