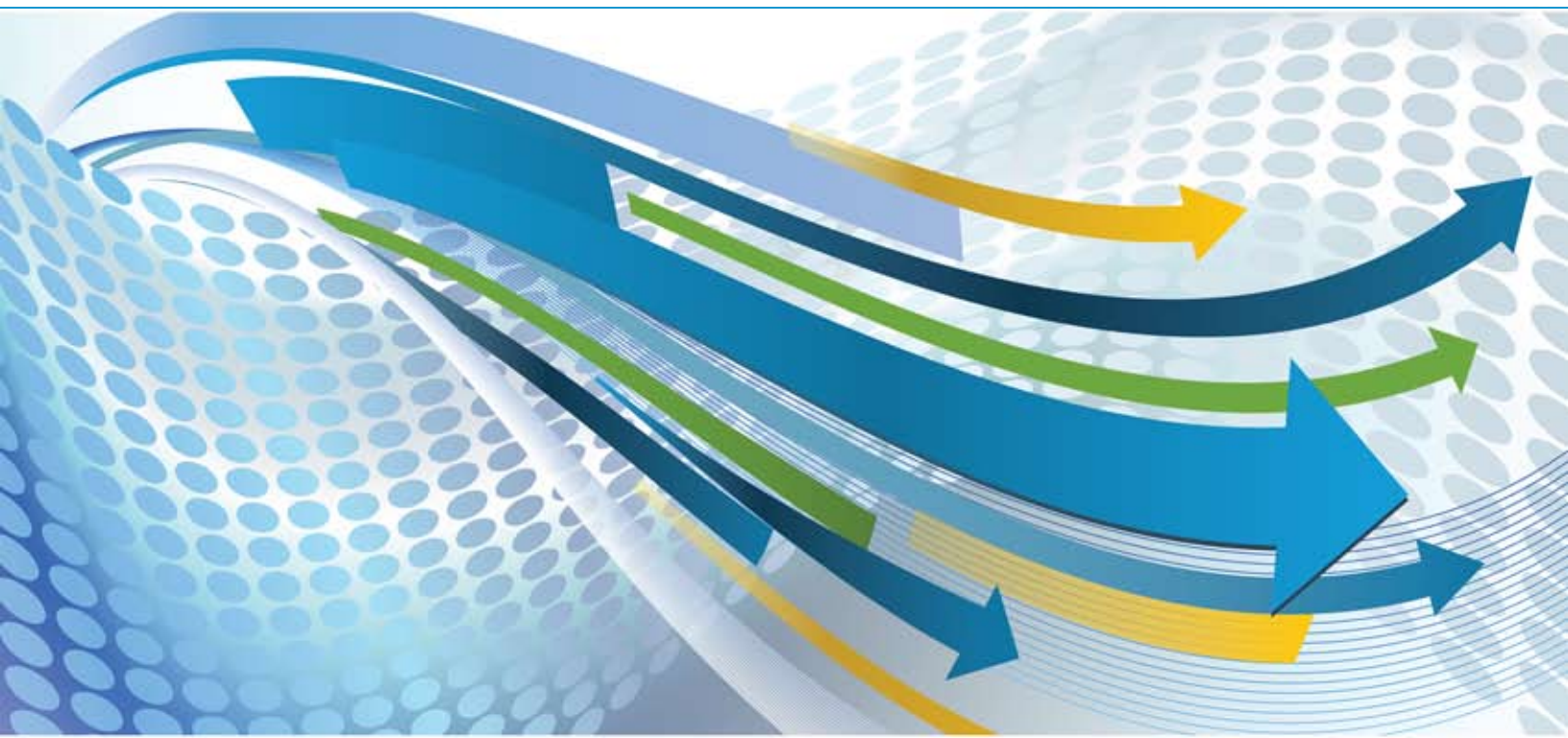


# February 2013

# Monthly Energy Review



*Independent Statistics & Analysis*  
U.S. Energy Information  
Administration

[www.eia.gov/mer](http://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.

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## Important Notes About the Data

**Data Displayed:** For tables beginning in 1973, some annual data (usually 1974, 1976-1979, 1981-1984, 1986-1989, and 1991-1994) are not shown 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:** The emphasis of the MER is on recent monthly and annual data trends. Analysts may wish to use the data in this report in conjunction with EIA's *Annual Energy Review (AER)* that offers annual data beginning in 1949 for many of the data series found in the MER. The AER is available at <http://www.eia.gov/totalenergy/data/annual>.

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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 by the last work day of the month at <http://www.eia.gov/totalenergy/data/monthly>.

# Monthly Energy Review

## February 2013

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

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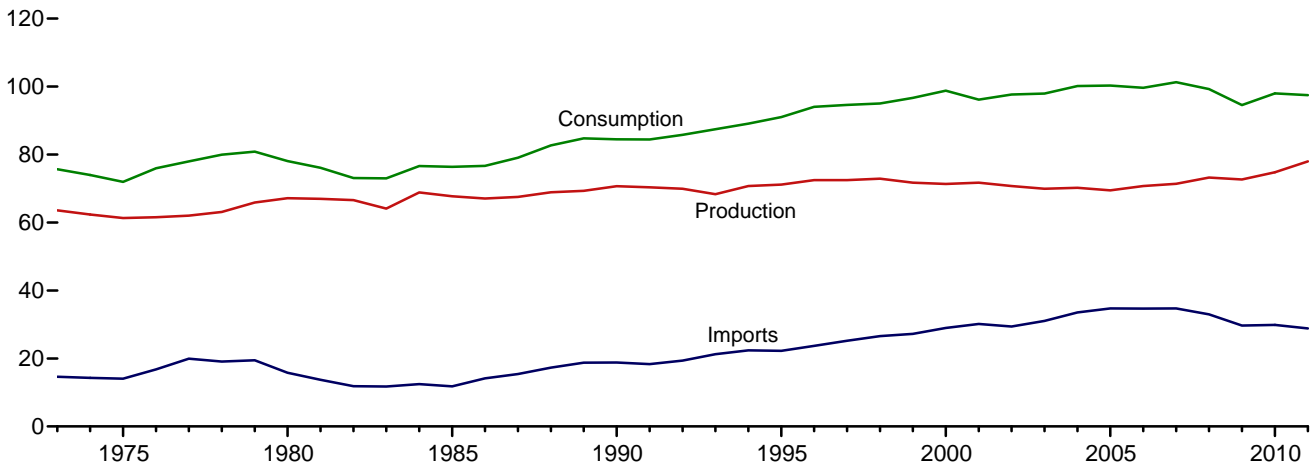
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# 1. Energy Overview

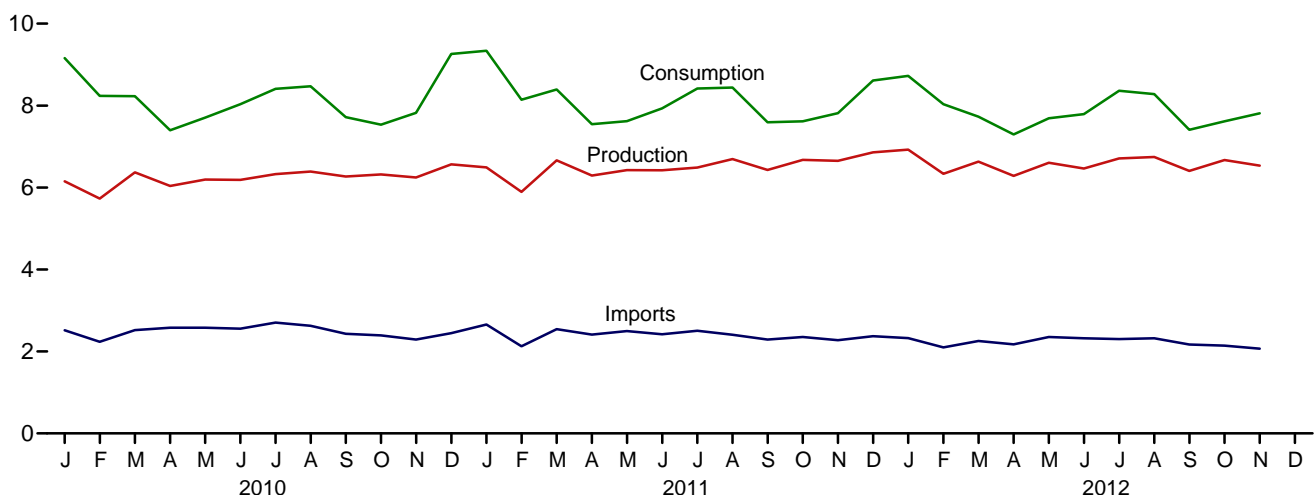
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**Figure 1.1 Primary Energy Overview**  
(Quadrillion Btu)

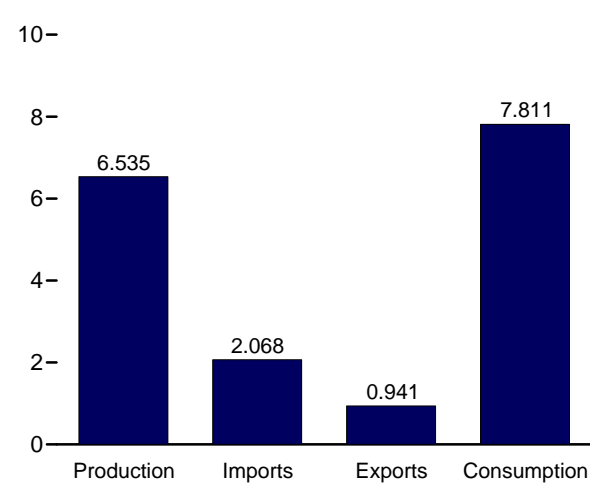
Consumption, Production, and Imports, 1973-2011



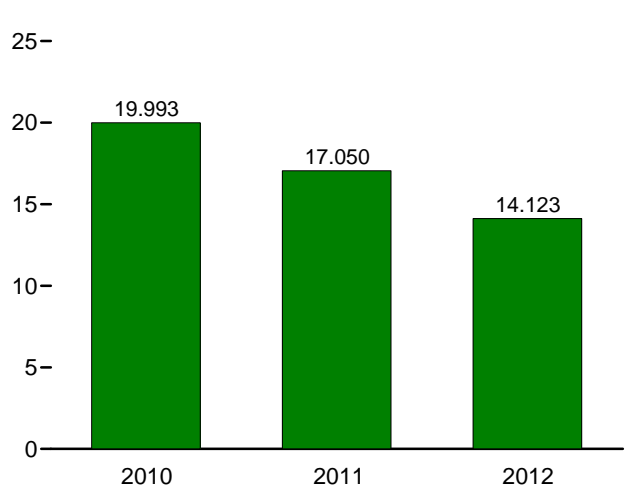
Consumption, Production, and Imports, Monthly



Overview, November 2012



Net Imports, January-November



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 <sup>d</sup>	Consumption			
	Fossil Fuels <sup>a</sup>	Nuclear Electric Power	Renewable Energy <sup>b</sup>	Total	Imports	Exports	Net Imports <sup>c</sup>		Fossil Fuels <sup>e</sup>	Nuclear Electric Power	Renewable Energy <sup>b</sup>	Total <sup>f</sup>
1973 Total	58.241	0.910	4.411	63.563	14.613	2.033	12.580	-0.459	70.314	0.910	4.411	75.684
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
1996 Total	58.387	7.087	7.012	72.486	23.702	4.633	19.069	2.468	79.785	7.087	7.014	94.022
1997 Total	58.857	6.597	7.018	72.472	25.215	4.514	20.701	1.429	80.873	6.597	7.016	94.602
1998 Total	59.314	7.068	6.494	72.876	26.581	4.299	22.281	-.140	81.369	7.068	6.493	95.018
1999 Total	57.614	7.610	6.517	71.742	27.252	3.715	23.537	1.372	82.427	7.610	6.516	96.652
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	56.022	7.959	5.947	69.927	31.061	4.054	27.007	1.009	84.014	7.959	5.948	97.943
2004 Total	55.930	8.222	6.069	70.220	33.544	4.434	29.110	.830	85.819	8.222	6.081	100.160
2005 Total	55.053	8.161	6.229	69.443	34.709	4.560	30.149	.689	85.794	8.161	6.242	100.282
2006 Total	55.940	8.215	6.599	70.754	34.679	4.872	29.806	-.930	84.702	8.215	6.649	99.629
2007 Total	56.435	8.455	6.509	71.400	34.703	5.482	29.221	.675	86.211	8.455	6.523	101.296
2008 Total	57.588	8.427	7.202	73.217	32.992	7.060	25.932	.125	83.549	8.427	7.186	99.275
2009 Total	56.669	8.356	7.616	72.641	29.706	6.965	22.741	-.822	78.488	8.356	7.600	94.559
2010 January	4.721	.758	.672	6.151	2.516	.590	1.926	1.082	7.725	.758	.662	9.160
February	4.437	.682	.610	5.730	2.237	.556	1.681	.827	6.940	.682	.605	8.238
March	5.013	.676	.682	6.371	2.519	.654	1.865	-.005	6.872	.676	.673	8.231
April	4.777	.602	.661	6.040	2.580	.686	1.894	-.536	6.129	.602	.657	7.397
May	4.783	.697	.717	6.196	2.578	.704	1.874	-.367	6.288	.697	.715	7.704
June	4.721	.714	.753	6.188	2.556	.684	1.872	-.026	6.556	.714	.755	8.034
July	4.876	.752	.701	6.329	2.705	.716	1.989	.090	6.946	.752	.701	8.409
August	4.982	.748	.662	6.391	2.627	.698	1.929	.150	7.056	.748	.660	8.470
September	4.917	.725	.626	6.268	2.431	.675	1.757	-.305	6.370	.725	.622	7.719
October	5.018	.656	.646	6.320	2.390	.714	1.676	-.461	6.234	.656	.643	7.535
November	4.907	.655	.682	6.244	2.289	.760	1.529	.051	6.491	.655	.676	7.825
December	5.071	.770	.726	6.566	2.447	.797	1.650	1.044	7.761	.770	.720	9.260
Total	58.224	8.434	8.136	74.795	29.877	8.234	21.643	1.544	81.369	8.434	8.090	97.982
2011 January	R 4.985	.761	.747	R 6.493	2.656	.841	1.815	R 1.028	7.835	.761	.731	9.337
February	R 4.505	.678	.710	R 5.893	2.126	.759	1.367	R .883	6.754	.678	.703	8.143
March	5.162	.687	.816	6.665	2.545	.880	1.664	R .064	6.892	.687	.805	8.393
April	4.909	.571	.813	R 6.292	2.411	.878	1.533	R -.279	6.164	.571	.804	7.546
May	4.998	.597	.832	R 6.426	2.497	.847	1.651	-.457	6.185	.597	.826	7.620
June	R 4.915	.683	.824	R 6.423	2.418	.818	1.600	R -.089	6.416	.683	.824	7.934
July	R 4.940	.757	.792	R 6.489	2.505	.854	1.652	R .276	6.861	.757	.782	8.417
August	R 5.207	.746	.742	R 6.695	2.406	.879	1.527	R .217	6.935	.746	.741	8.439
September	5.054	.700	.677	R 6.430	2.292	.892	1.400	R -.236	6.214	.700	.670	7.594
October	5.303	.663	.708	R 6.673	2.352	.891	1.461	R -.517	6.246	.663	.699	7.617
November	R 5.238	.675	.738	6.651	2.274	.894	1.380	R -.215	6.406	.675	.727	7.816
December	R 5.338	.752	.770	R 6.860	2.372	1.026	1.347	R .406	7.089	.752	.760	8.612
Total	R 60.554	8.269	R 9.168	R 77.991	28.855	10.458	18.397	R 1.080	79.999	8.269	R 9.072	R 97.467
2012 January	R 5.384	.757	.785	R 6.926	2.327	.864	1.463	R .334	7.192	.757	.763	8.723
February	4.966	.668	.701	R 6.335	2.100	.838	1.262	R .438	6.667	.668	.690	8.035
March	5.194	.646	.795	6.634	2.255	.964	1.291	-.196	6.287	.646	.786	7.729
April	R 4.931	.585	.770	R 6.286	2.174	1.000	1.174	R -.164	5.932	.585	.767	7.286
May	R 5.138	.650	.816	R 6.604	2.351	1.012	1.340	-.255	6.209	.650	.816	7.689
June	5.003	.682	.780	6.465	2.322	.999	1.322	.005	6.318	.682	.779	R 7.792
July	R 5.235	.723	.751	R 6.710	2.303	.982	1.321	.330	6.865	.723	.753	8.360
August	R 5.304	.728	.713	R 6.746	2.322	.942	1.380	R .154	6.815	.728	.719	8.280
September	R 5.086	.675	.645	R 6.407	2.170	.915	1.255	R -.251	6.077	.675	.644	7.410
October	5.371	.625	.676	6.672	2.144	.955	1.188	R -.244	R 6.297	.625	.681	R 7.616
November	5.255	.593	.687	6.535	2.068	.941	1.127	.148	6.517	.593	.687	7.811
11-Month Total	56.866	7.333	8.122	72.320	24.535	10.412	14.123	.299	71.176	7.333	8.084	86.742
2011 11-Month Total	55.216	7.517	8.398	71.131	26.483	9.433	17.050	.674	72.910	7.517	8.312	88.855
2010 11-Month Total	53.153	7.664	7.411	68.228	27.430	7.436	19.993	.500	73.608	7.664	7.370	88.722

<sup>a</sup> Coal, natural gas (dry), crude oil, and natural gas plant liquids.  
<sup>b</sup> 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.  
<sup>c</sup> Net imports equal imports minus exports.  
<sup>d</sup> 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.  
<sup>e</sup> Coal, coal coke net imports, natural gas, and petroleum.  
<sup>f</sup> Also includes electricity net imports.  
R=Revised.

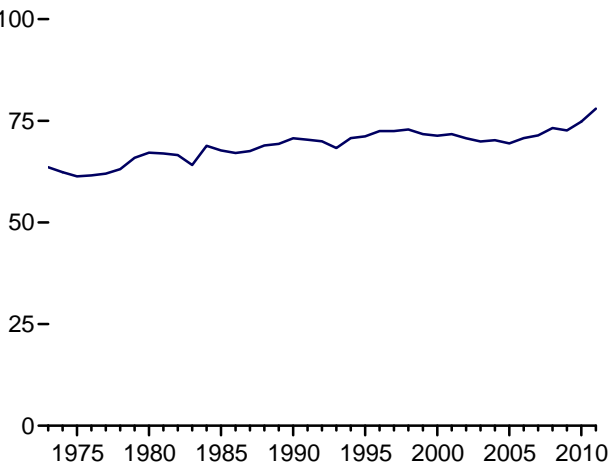
Notes: • See "Primary Energy," "Primary Energy Production," and "Primary Energy Consumption," in Glossary. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#summary> for all available data beginning in 1973.

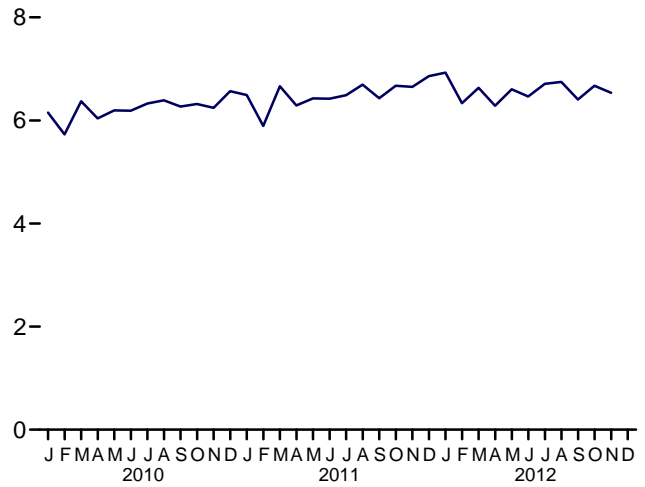
Sources: • **Production:** Table 1.2. • **Trade:** Tables 1.4a and 1.4b. • **Stock Change and Other:** Calculated as consumption minus production and net imports. • **Consumption:** Table 1.3.

**Figure 1.2 Primary Energy Production**  
(Quadrillion Btu)

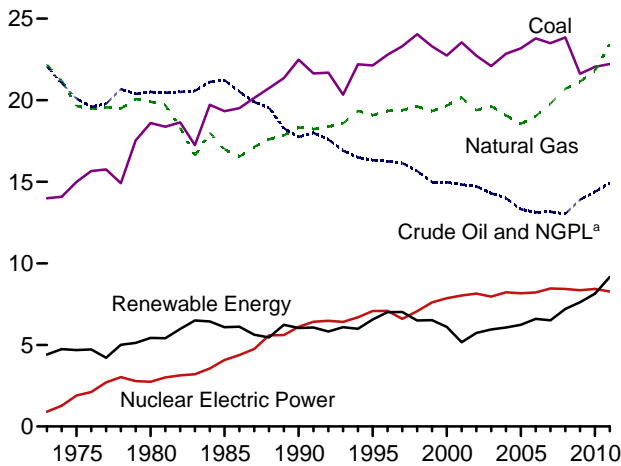
Total, 1973-2011



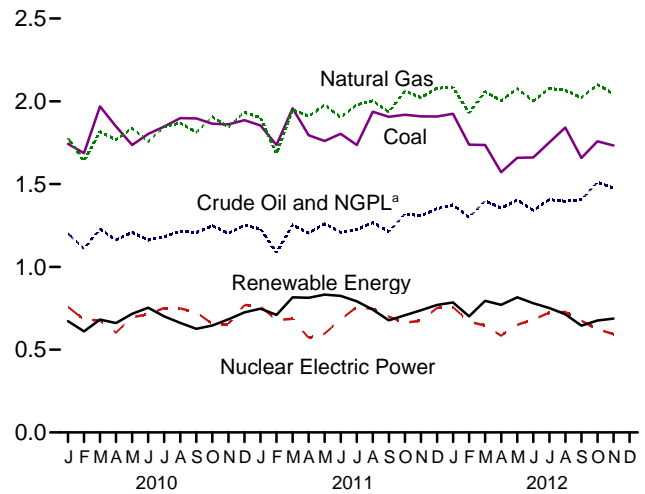
Total, Monthly



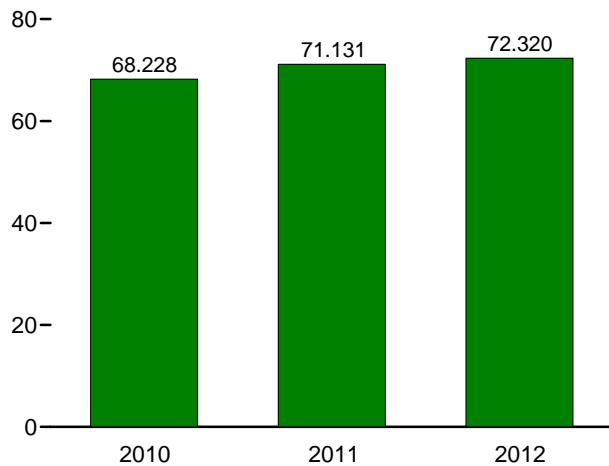
By Source, 1973-2011



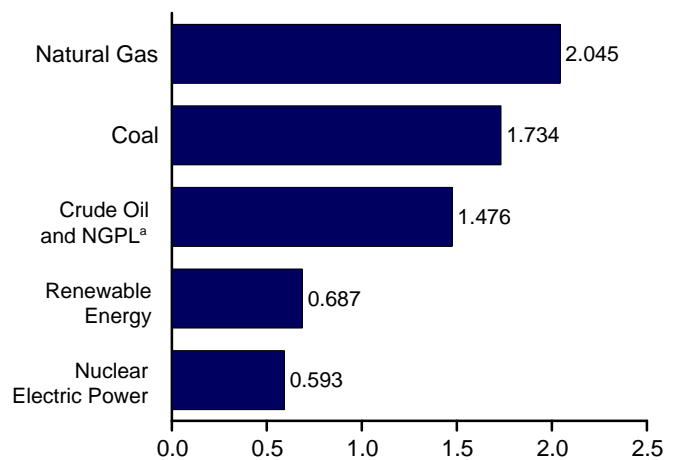
By Source, Monthly



Total, January-November



By Source, November 2012



<sup>a</sup> Natural gas plant liquids.

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

Source: Table 1.2.

**Table 1.2 Primary Energy Production by Source**  
(Quadrillion Btu)

	Fossil Fuels					Nuclear Electric Power	Renewable Energy <sup>a</sup>						Total
	Coal <sup>b</sup>	Natural Gas (Dry)	Crude Oil <sup>c</sup>	NGPL <sup>d</sup>	Total		Hydro- electric Power <sup>e</sup>	Geo- thermal	Solar/ PV	Wind	Bio- mass	Total	
<b>1973 Total</b>	13.992	22.187	19.493	2.569	58.241	0.910	2.861	0.020	NA	NA	1.529	4.411	63.563
1975 Total	14.989	19.640	17.729	2.374	54.733	1.900	3.155	.034	NA	NA	1.499	4.687	61.320
1980 Total	18.598	19.908	18.249	2.254	59.008	2.739	2.900	.053	NA	NA	2.475	5.428	67.175
1985 Total	19.325	16.980	18.992	2.241	57.539	4.076	2.970	.097	(s)	(s)	3.016	6.084	67.698
1990 Total	22.488	18.326	15.571	2.175	58.560	6.104	3.046	.171	.059	.029	2.735	6.041	70.705
1995 Total	22.130	19.082	13.887	2.442	57.540	7.075	3.205	.152	.069	.033	3.099	6.558	71.174
1996 Total	22.790	19.344	13.723	2.530	58.387	7.087	3.590	.163	.070	.033	3.155	7.012	72.486
1997 Total	23.310	19.394	13.658	2.495	58.857	6.597	3.640	.167	.070	.034	3.108	7.018	72.472
1998 Total	24.045	19.613	13.235	2.420	59.314	7.068	3.297	.168	.069	.031	2.929	6.494	72.876
1999 Total	23.295	19.341	12.451	2.528	57.614	7.610	3.268	.171	.068	.046	2.965	6.517	71.742
2000 Total	22.735	19.662	12.358	2.611	57.366	7.862	2.811	.164	.066	.057	3.006	6.104	71.332
2001 Total	23.547	20.166	12.282	2.547	58.541	8.029	2.242	.164	.064	.070	2.624	5.164	71.735
2002 Total	22.732	19.382	12.160	2.559	56.834	8.145	2.689	.171	.063	.105	2.705	5.734	70.713
2003 Total	22.094	19.633	11.948	2.346	56.022	7.959	2.793	.173	.062	.113	2.805	5.947	69.927
2004 Total	22.852	19.074	11.538	2.466	55.930	8.222	2.688	.178	.063	.142	2.998	6.069	70.220
2005 Total	23.185	18.556	10.978	2.334	55.053	8.161	2.703	.181	.063	.178	3.104	6.229	69.443
2006 Total	23.790	19.022	10.772	2.356	55.940	8.215	2.869	.181	.068	.264	3.216	6.599	70.754
2007 Total	23.493	19.786	10.748	2.409	56.435	8.455	2.446	.186	.076	.341	3.461	6.509	71.400
2008 Total	23.851	20.703	10.615	2.419	57.588	8.427	2.511	.192	.089	.546	3.864	7.202	73.217
2009 Total	21.624	21.139	11.332	2.574	56.669	8.356	2.669	.200	.098	.721	3.928	7.616	72.641
<b>2010</b>													
January	1.743	1.777	.971	.230	4.721	.758	.218	.018	.010	.067	.359	.672	6.151
February	1.687	1.640	.901	.210	4.437	.682	.201	.016	.009	.053	.332	.610	5.730
March	1.969	1.817	.991	.236	5.013	.676	.204	.018	.010	.084	.366	.682	6.371
April	1.848	1.767	.936	.227	4.777	.602	.186	.017	.010	.095	.351	.661	6.040
May	1.736	1.838	.971	.238	4.783	.697	.245	.018	.011	.085	.358	.717	6.196
June	1.802	1.756	.937	.226	4.721	.714	.291	.017	.011	.079	.355	.753	6.188
July	1.847	1.847	.955	.227	4.876	.752	.239	.017	.011	.066	.367	.701	6.329
August	1.898	1.869	.979	.236	4.982	.748	.196	.018	.011	.065	.371	.662	6.391
September	1.897	1.813	.976	.232	4.917	.725	.168	.017	.011	.069	.360	.626	6.268
October	1.864	1.906	1.006	.242	5.018	.656	.173	.017	.010	.077	.369	.646	6.320
November	1.860	1.844	.967	.235	4.907	.655	.191	.017	.010	.095	.369	.682	6.244
December	1.886	1.933	1.009	.242	5.071	.770	.226	.018	.010	.088	.383	.726	6.566
<b>Total</b>	<b>22.038</b>	<b>21.806</b>	<b>11.598</b>	<b>2.781</b>	<b>58.224</b>	<b>8.434</b>	<b>2.539</b>	<b>.208</b>	<b>.126</b>	<b>.923</b>	<b>4.341</b>	<b>8.136</b>	<b>74.795</b>
<b>2011</b>													
January	1.854	1.901	R .989	.241	R 4.985	.761	.248	R .018	.012	.083	.385	.747	R 6.493
February	1.736	1.684	R .879	.207	R 4.505	.678	.234	.017	.012	.102	.346	.710	R 5.893
March	1.958	1.950	R 1.004	.250	5.162	.687	.303	.018	.013	.102	.380	.816	6.665
April	1.795	1.909	R .963	.241	4.909	.571	.303	.017	.013	.121	.359	.813	R 6.292
May	1.760	1.977	R 1.006	.254	4.998	.597	.317	.018	.014	.114	.369	.832	R 6.426
June	1.804	1.903	R .968	.241	R 4.915	.683	.312	.017	.014	.107	.375	.824	R 6.423
July	1.736	1.979	R .974	.251	R 4.940	.757	.304	.018	.014	.073	.384	.792	R 6.489
August	1.937	2.003	1.014	.254	R 5.207	.746	.250	.018	.014	.073	.387	.742	R 6.695
September	1.907	1.935	R .973	.239	5.054	.700	.208	.017	.013	.067	.372	.677	R 6.430
October	1.919	2.063	1.058	.263	5.303	.663	.192	.018	.013	.102	.382	.708	R 6.673
November	1.909	2.022	R 1.046	.261	R 5.238	.675	.201	.018	.013	.121	.386	.738	6.651
December	1.908	2.079	R 1.083	.268	R 5.338	.752	.231	.018	.013	.104	.405	.770	R 6.860
<b>Total</b>	<b>22.221</b>	<b>23.406</b>	<b>R 11.957</b>	<b>2.970</b>	<b>R 60.554</b>	<b>8.269</b>	<b>3.103</b>	<b>R .212</b>	<b>.158</b>	<b>1.168</b>	<b>4.527</b>	<b>R 9.168</b>	<b>R 77.991</b>
<b>2012</b>													
January	1.925	E 2.085	RE 1.103	.270	R 5.384	.757	.227	.019	.015	.134	.390	.785	R 6.926
February	1.738	E 1.928	RE 1.045	.254	4.966	.668	.198	.018	.015	.108	.362	.701	R 6.335
March	1.736	E 2.059	E 1.129	.270	5.194	.646	.250	.019	.017	.135	.373	.795	6.634
April	1.572	E 2.003	E 1.093	.262	R 4.931	.585	.254	.018	.017	.124	.356	.770	R 6.286
May	1.659	E 2.076	E 1.133	.270	R 5.138	.650	.277	.019	.019	.122	.378	.816	R 6.604
June	1.660	RE 2.002	RE 1.084	.257	5.003	.682	.259	.019	.019	.116	.368	.780	6.465
July	1.751	RE 2.077	RE 1.142	.264	R 5.235	.723	.260	.019	.019	.085	.368	.751	R 6.710
August	1.841	RE 2.067	RE 1.127	.269	R 5.304	.728	.225	.019	.019	.081	.370	.713	R 6.746
September	1.658	RE 2.022	RE 1.136	.271	R 5.086	.675	.171	.019	.018	.084	.353	.645	R 6.407
October	1.759	RE 2.101	RE 1.228	.283	5.371	.625	.157	.019	.019	.122	.359	.676	6.672
November	1.734	E 2.045	E 1.199	.277	5.255	.593	.183	.019	.017	.112	.356	.687	6.535
<b>11-Month Total</b>	<b>19.033</b>	<b>E 22.465</b>	<b>E 12.419</b>	<b>2.950</b>	<b>56.866</b>	<b>7.333</b>	<b>2.461</b>	<b>.207</b>	<b>.195</b>	<b>1.223</b>	<b>4.035</b>	<b>8.122</b>	<b>72.320</b>
<b>2011 11-Month Total</b>	<b>20.314</b>	<b>21.327</b>	<b>10.874</b>	<b>2.702</b>	<b>55.216</b>	<b>7.517</b>	<b>2.872</b>	<b>.194</b>	<b>.145</b>	<b>1.064</b>	<b>4.123</b>	<b>8.398</b>	<b>71.131</b>
<b>2010 11-Month Total</b>	<b>20.152</b>	<b>19.873</b>	<b>10.589</b>	<b>2.539</b>	<b>53.153</b>	<b>7.664</b>	<b>2.313</b>	<b>.190</b>	<b>.116</b>	<b>.835</b>	<b>3.958</b>	<b>7.411</b>	<b>68.228</b>

<sup>a</sup> 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.

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

<sup>c</sup> Includes lease condensate.

<sup>d</sup> Natural gas plant liquids.

<sup>e</sup> Conventional hydroelectric power.

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

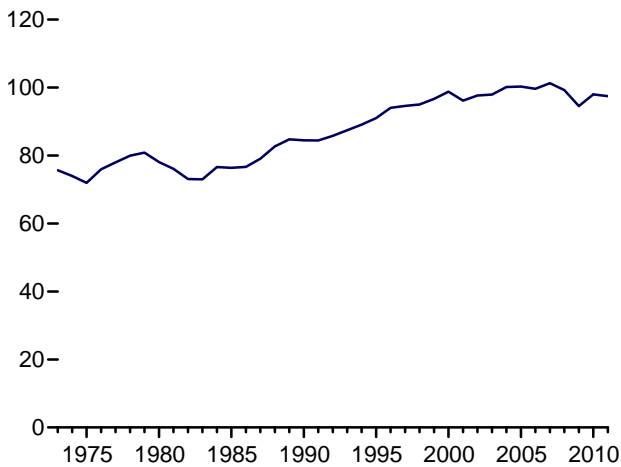
Notes: • See "Primary Energy Production" in Glossary. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#summary> for all available data beginning in 1973.

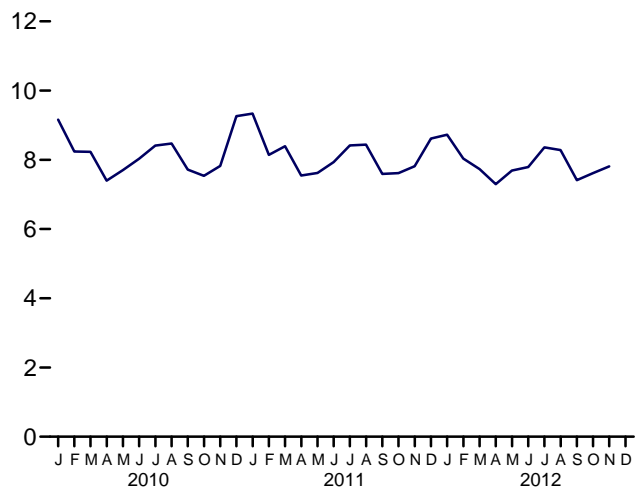
Sources: • **Coal:** Tables 6.1 and A5. • **Natural Gas (Dry):** Tables 4.1 and A4. • **Crude Oil and Natural Gas Plant Liquids:** Tables 3.1 and A2. • **Nuclear Electric Power:** Tables 7.2a and A6 ("Nuclear Plants" heat rate). • **Renewable Energy:** Table 10.1.

**Figure 1.3 Primary Energy Consumption**  
(Quadrillion Btu)

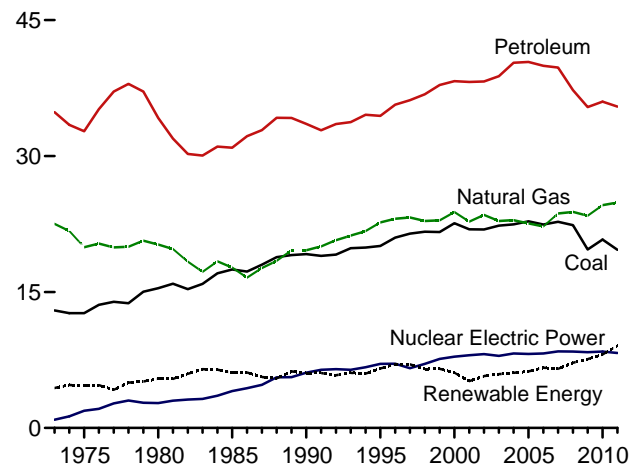
Total, 1973-2011



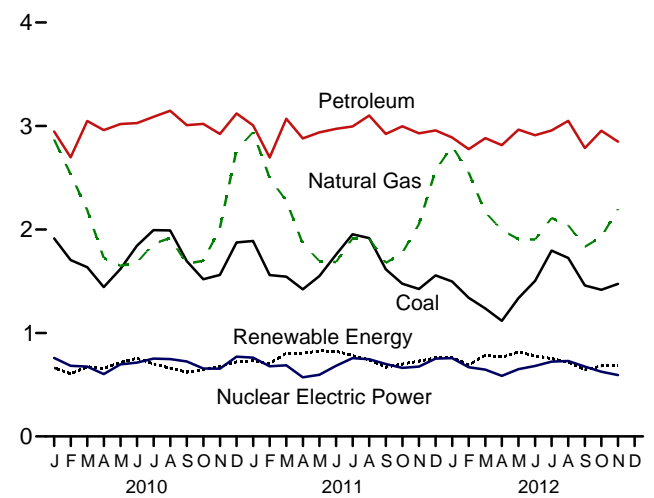
Total, Monthly



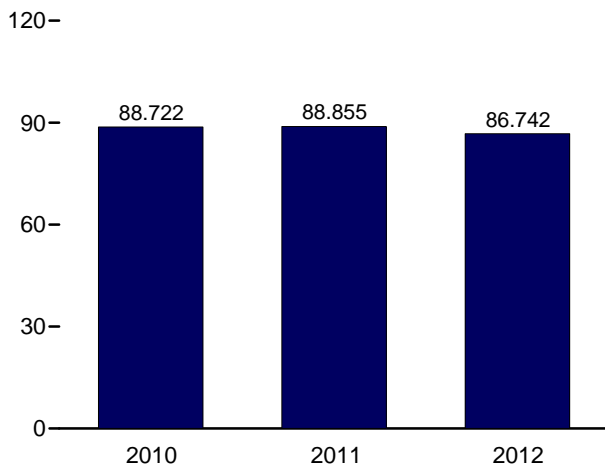
By Source,<sup>a</sup> 1973-2011



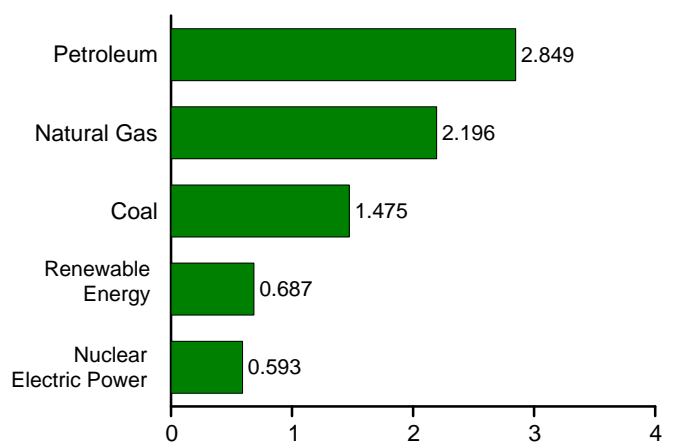
By Source,<sup>a</sup> Monthly



Total, January-November



By Source,<sup>a</sup> November 2012



<sup>a</sup> 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 <sup>a</sup>						Total <sup>f</sup>
	Coal	Natural Gas <sup>b</sup>	Petroleum <sup>c</sup>	Total <sup>d</sup>		Hydro-electric Power <sup>e</sup>	Geo-thermal	Solar/PV	Wind	Bio-mass	Total	
1973 Total	12.971	22.512	34.837	70.314	0.910	2.861	0.020	NA	NA	1.529	4.411	75.684
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
1996 Total	21.002	23.085	35.675	79.785	7.087	3.590	.163	.070	.033	3.157	7.014	94.022
1997 Total	21.445	23.223	36.159	80.873	6.597	3.640	.167	.070	.034	3.105	7.016	94.602
1998 Total	21.656	22.830	36.816	81.369	7.068	3.297	.168	.069	.031	2.927	6.493	95.018
1999 Total	21.623	22.909	37.838	82.427	7.610	3.268	.171	.068	.046	2.963	6.516	96.652
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	7.959	2.793	.173	.062	.113	2.807	5.948	97.943
2004 Total	22.466	22.923	40.292	85.819	8.222	2.688	.178	.063	.142	3.010	6.081	100.160
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	8.455	2.446	.186	.076	.341	3.474	6.523	101.296
2008 Total	22.385	23.843	37.280	83.549	8.427	2.511	.192	.089	.546	3.849	7.186	99.275
2009 Total	19.692	23.416	35.403	78.488	8.356	2.669	.200	.098	.721	3.912	7.600	94.559
2010 January	1.913	2.869	2.947	7.725	.758	.218	.018	.010	.067	.349	.662	9.160
February	1.705	2.533	2.698	6.940	.682	.201	.016	.009	.053	.326	.605	8.238
March	1.635	2.187	3.048	6.872	.676	.204	.018	.010	.084	.357	.673	8.231
April	1.443	1.725	2.960	6.129	.602	.186	.017	.010	.095	.348	.657	7.397
May	1.617	1.649	3.020	6.288	.697	.245	.018	.011	.085	.356	.715	7.704
June	1.844	1.682	3.029	6.556	.714	.291	.017	.011	.079	.357	.755	8.034
July	1.994	1.862	3.089	6.946	.752	.239	.017	.011	.066	.368	.701	8.409
August	1.991	1.916	3.148	7.056	.748	.196	.018	.011	.065	.370	.660	8.470
September	1.693	1.670	3.008	6.370	.725	.168	.017	.011	.069	.357	.622	7.719
October	1.519	1.697	3.020	6.234	.656	.173	.017	.010	.077	.366	.643	7.535
November	1.560	2.013	2.923	6.491	.655	.191	.017	.010	.095	.363	.676	7.825
December	1.875	2.771	3.120	7.761	.770	.226	.018	.010	.088	.377	.720	9.260
Total	20.791	24.575	36.010	81.369	8.434	2.539	.208	.126	.923	4.294	8.090	97.982
2011 January	1.888	2.940	3.006	7.835	.761	.248	R .018	.012	.083	.369	.731	9.337
February	1.560	2.497	2.696	6.754	.678	.234	.017	.012	.102	.339	.703	8.143
March	1.544	2.276	3.070	6.892	.687	.303	.018	.013	.102	.369	.805	8.393
April	1.421	1.863	2.879	6.164	.571	.303	.017	.013	.121	.349	.804	7.546
May	1.551	1.695	2.938	6.185	.597	.317	.018	.014	.114	.363	.826	7.620
June	1.758	1.684	2.973	6.416	.683	.312	.017	.014	.107	.374	.824	7.934
July	1.953	1.913	2.995	6.861	.757	.304	.018	.014	.073	.374	.782	8.417
August	1.917	1.914	3.101	6.935	.746	.250	.018	.014	.073	.386	.741	8.439
September	1.614	1.677	2.923	6.214	.700	.208	.017	.013	.067	.365	.670	7.594
October	1.475	1.773	2.998	6.246	.663	.192	.018	.013	.102	.373	.699	7.617
November	1.425	2.053	2.929	6.406	.675	.201	.018	.013	.121	.375	.727	7.816
December	1.556	2.574	2.957	7.089	.752	.231	.018	.013	.104	.395	.760	8.612
Total	19.663	24.860	35.465	79.999	8.269	3.103	R .212	.158	1.168	4.432	R 9.072	R 97.467
2012 January	1.497	2.804	2.889	7.192	.757	.227	.019	.015	.134	.367	.763	8.723
February	1.340	2.550	2.776	6.667	.668	.198	.018	.015	.108	.351	.690	8.035
March	1.236	2.165	2.883	6.287	.646	.250	.019	.017	.135	.365	.786	7.729
April	1.117	1.994	2.815	5.932	.585	.254	.018	.017	.124	.353	.767	7.296
May	1.337	1.908	2.964	6.209	.650	.277	.019	.019	.122	.378	.816	7.689
June	1.504	R 1.903	2.911	6.318	.682	.259	.019	.019	.116	.366	.779	R 7.792
July	1.796	2.112	2.957	6.865	.723	.260	.019	.019	.085	.369	.753	8.360
August	1.725	2.040	3.050	6.815	.728	.225	.019	.019	.081	.375	.719	8.280
September	1.458	1.833	2.787	6.077	.675	.171	.019	.018	.084	.352	.644	7.410
October	R 1.417	R 1.928	2.955	R 6.297	.625	.157	.019	.019	.122	.364	.681	R 7.616
November	1.475	2.196	2.849	6.517	.593	.183	.019	.017	.112	.356	.687	7.811
11-Month Total	15.903	23.433	31.836	71.176	7.333	2.461	.207	.195	1.223	3.997	8.084	86.742
2011 11-Month Total	18.107	22.286	32.509	72.910	7.517	2.872	.194	.145	1.064	4.037	8.312	88.855
2010 11-Month Total	18.916	21.804	32.889	73.608	7.664	2.313	.190	.116	.835	3.917	7.370	88.722

<sup>a</sup> 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.

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

<sup>c</sup> 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."

<sup>d</sup> Includes coal coke net imports. See Tables 1.4a and 1.4b.

<sup>e</sup> Conventional hydroelectric power.

<sup>f</sup> 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> for all available data beginning in 1973.

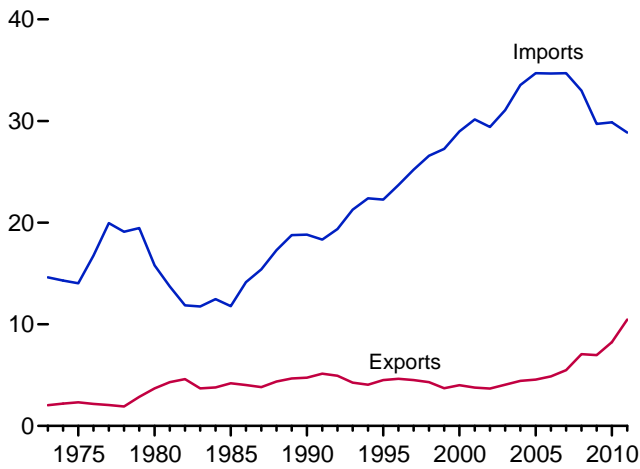
Sources: • Coal: Tables 6.1 and A5. • Natural Gas: Tables 4.1 and A4.

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

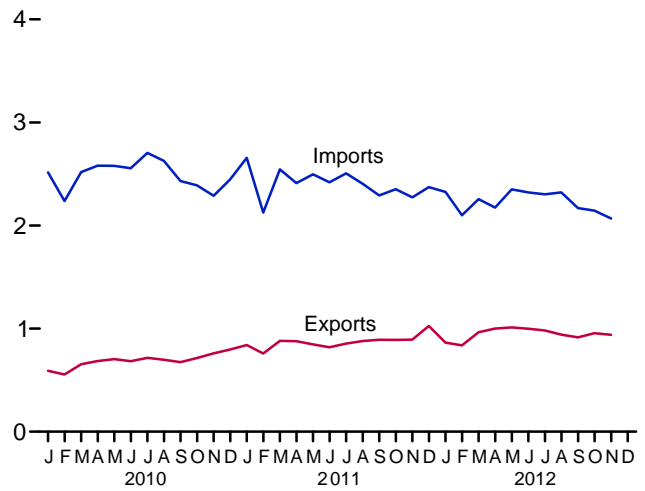
("Nuclear Plants" heat rate). • Renewable Energy: Table 10.1. • Net Imports of Coal Coke and Electricity: Tables 1.4a and 1.4b.

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

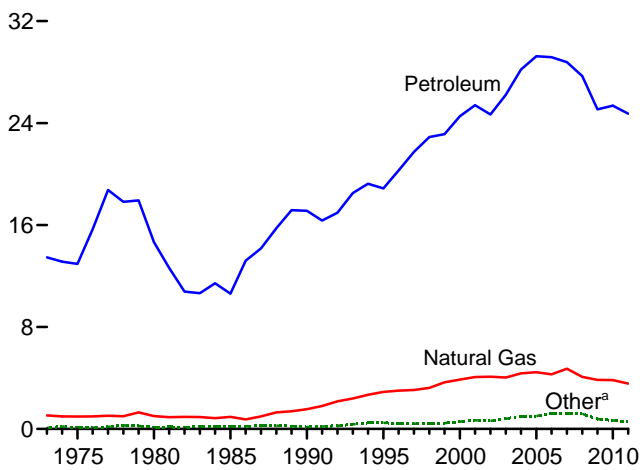
Total Imports and Exports, 1973-2011



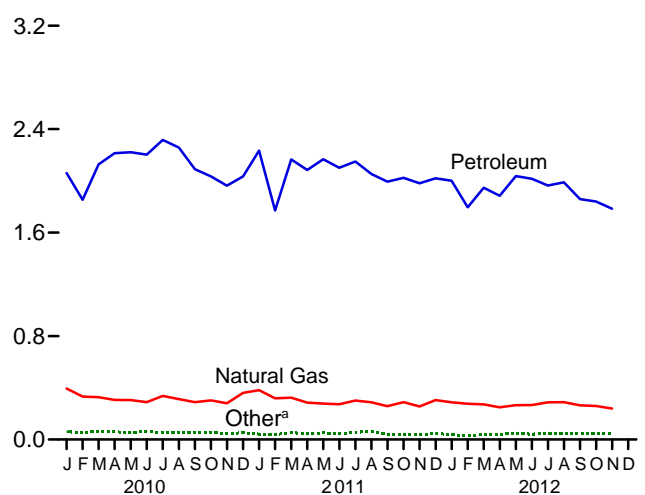
Total Imports and Exports, Monthly



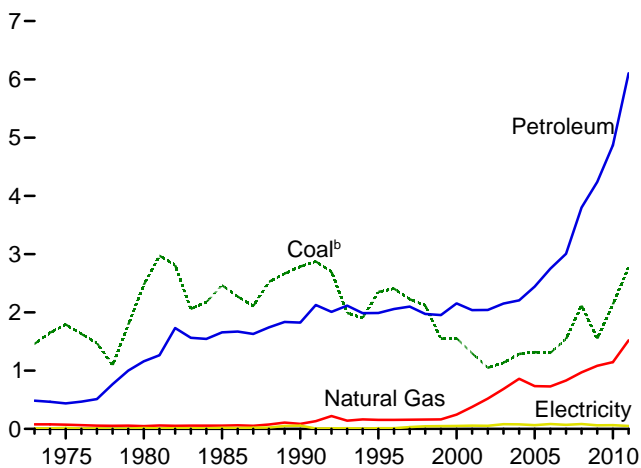
Imports by Source, 1973-2011



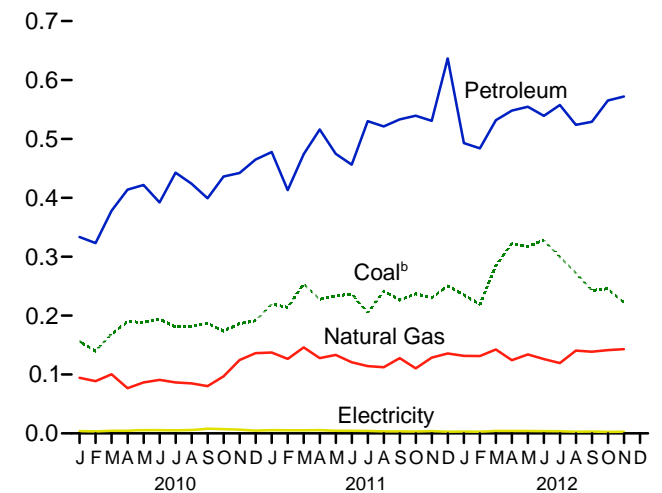
Imports by Source, Monthly



Exports by Source, 1973-2011



Exports by Major Source, Monthly



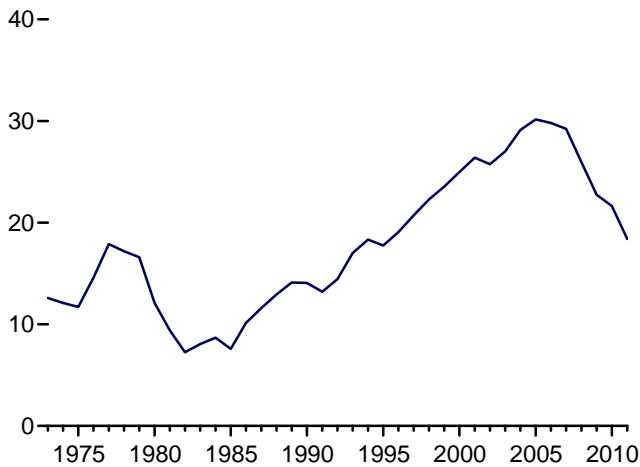
<sup>a</sup> Coal, coal coke, biofuels, and electricity.

<sup>b</sup> Includes coal coke.

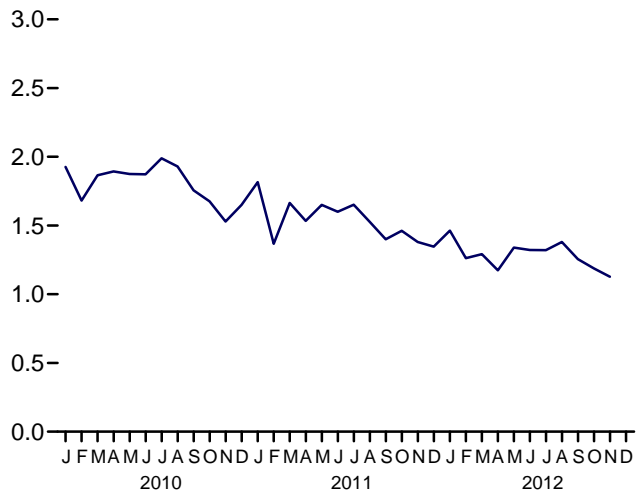
Web Page: <http://www.eia.gov/totalenergy/data/monthly/#summary>.  
Sources: Tables 1.4a and 1.4b.

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

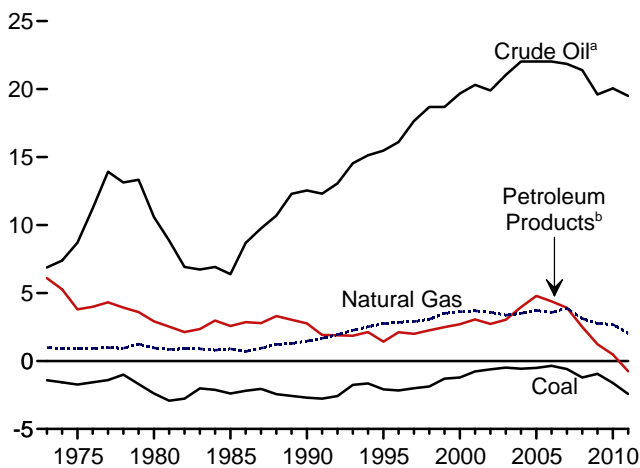
Total, 1973-2011



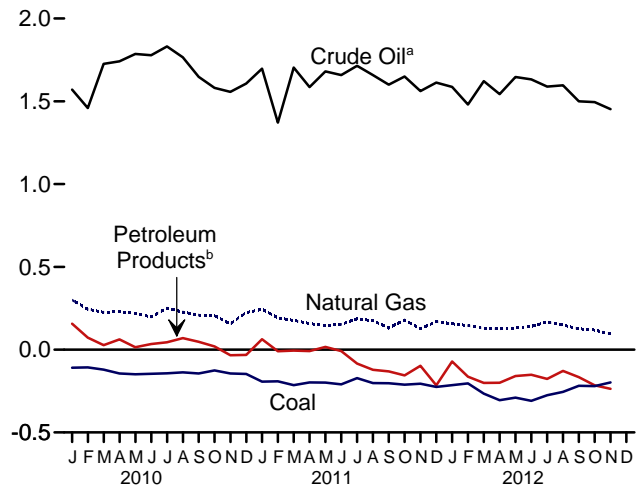
Total, Monthly



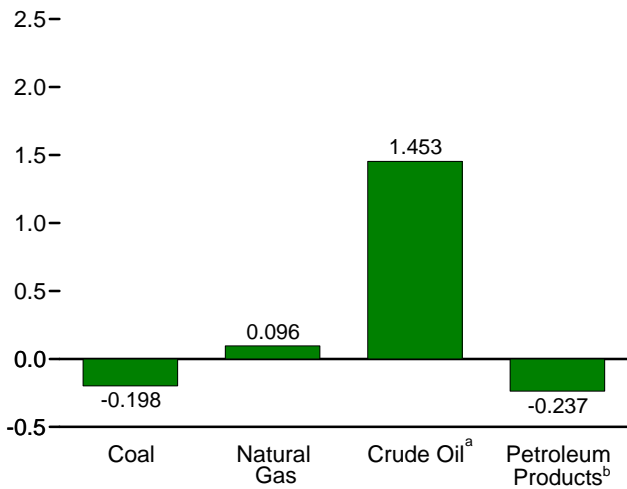
By Major Source, 1973-2011



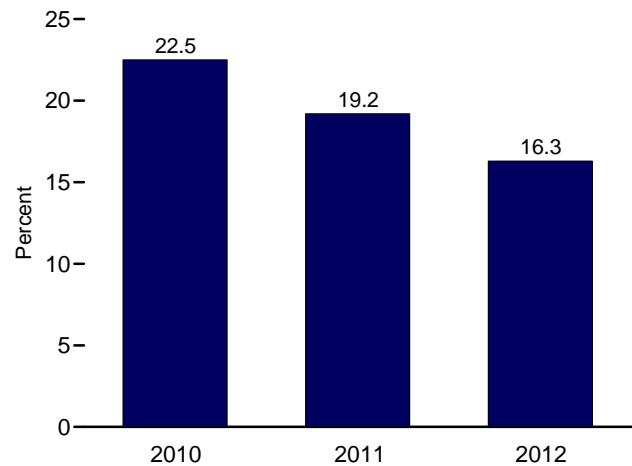
By Major Source, Monthly



By Major Source, November 2012



As Share of Consumption, January-November



<sup>a</sup> Crude oil and lease condensate. Includes imports into the Strategic Petroleum Reserve, which began in 1977.

<sup>b</sup> 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 1.3, 1.4a, and 1.4b.

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

	Imports								
	Coal	Coal Coke	Natural Gas	Petroleum			Biofuels <sup>c</sup>	Electricity	Total
				Crude Oil <sup>a</sup>	Petroleum Products <sup>b</sup>	Total			
<b>1973 Total</b> .....	<b>0.003</b>	<b>0.027</b>	<b>1.060</b>	<b>6.887</b>	<b>6.578</b>	<b>13.466</b>	<b>NA</b>	<b>0.057</b>	<b>14.613</b>
1975 Total .....	.024	.045	.978	8.721	4.227	12.948	NA	.038	14.032
1980 Total .....	.030	.016	1.006	11.195	3.463	14.658	NA	.085	15.796
1985 Total .....	.049	.014	.952	6.814	3.796	10.609	NA	.157	11.781
1990 Total .....	.067	.019	1.551	12.766	4.351	17.117	NA	.063	18.817
1995 Total .....	.237	.095	2.901	15.669	3.211	18.881	.001	.146	22.260
1996 Total .....	.203	.063	3.002	16.341	3.943	20.284	.001	.148	23.702
1997 Total .....	.187	.078	3.063	17.876	3.864	21.740	(s)	.147	25.215
1998 Total .....	.218	.095	3.225	18.916	3.992	22.908	(s)	.135	26.581
1999 Total .....	.227	.080	3.664	18.935	4.198	23.133	(s)	.147	27.252
2000 Total .....	.313	.094	3.869	19.783	4.749	24.531	(s)	.166	28.973
2001 Total .....	.495	.063	4.068	20.348	5.051	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	.054	.175	34.703
2008 Total .....	.855	.089	4.084	21.448	6.237	27.685	.084	.195	32.992
2009 Total .....	.566	.009	3.845	19.699	5.383	25.082	.026	.178	29.706
<b>2010</b> January .....	.042	.001	.394	1.577	.483	2.060	.001	.018	2.516
February .....	.031	.005	.332	1.469	.384	1.853	(s)	.015	2.237
March .....	.047	.003	.327	1.734	.393	2.127	.001	.015	2.519
April .....	.045	.001	.306	1.747	.466	2.214	(s)	.013	2.580
May .....	.037	.005	.305	1.793	.428	2.221	.001	.010	2.578
June .....	.044	.005	.289	1.784	.419	2.203	(s)	.014	2.556
July .....	.035	.003	.337	1.844	.472	2.316	(s)	.015	2.705
August .....	.043	.003	.313	1.772	.484	2.256	(s)	.012	2.627
September .....	.040	.002	.289	1.658	.432	2.090	(s)	.010	2.431
October .....	.044	.001	.302	1.585	.448	2.034	(s)	.009	2.390
November .....	.037	(s)	.280	1.563	.400	1.963	(s)	.009	2.289
December .....	.039	(s)	.361	1.614	.420	2.034	(s)	.013	2.447
<b>Total</b> .....	<b>.484</b>	<b>.030</b>	<b>3.834</b>	<b>20.140</b>	<b>5.231</b>	<b>25.371</b>	<b>.004</b>	<b>.154</b>	<b>29.877</b>
<b>2011</b> January .....	.025	.001	.381	1.710	.523	2.233	(s)	.015	2.656
February .....	.021	.002	.319	1.377	.394	1.771	(s)	.013	2.126
March .....	.038	.004	.323	1.710	.455	2.166	(s)	.014	2.545
April .....	.028	.001	.285	1.593	.490	2.084	(s)	.013	2.411
May .....	.033	.004	.278	1.687	.479	2.166	(s)	.017	2.497
June .....	.024	.004	.273	1.665	.436	2.101	.001	.015	2.418
July .....	.030	.003	.301	1.728	.422	2.150	.001	.021	2.505
August .....	.039	.005	.287	1.664	.389	2.053	.002	.019	2.406
September .....	.021	.003	.258	1.607	.386	1.993	.003	.014	2.292
October .....	.023	.002	.289	1.659	.364	2.023	.002	.013	2.352
November .....	.020	.002	.255	1.572	.409	1.981	.003	.012	2.274
December .....	.024	.004	.305	1.622	.397	2.019	.005	.015	2.372
<b>Total</b> .....	<b>.327</b>	<b>.035</b>	<b>3.555</b>	<b>19.595</b>	<b>5.145</b>	<b>24.740</b>	<b>.019</b>	<b>.178</b>	<b>28.855</b>
<b>2012</b> January .....	.020	.003	.288	1.597	.405	2.001	(s)	.014	2.327
February .....	.013	.002	.277	1.491	.304	1.795	(s)	.012	2.100
March .....	.017	.004	.272	1.633	.313	1.946	.002	.014	2.255
April .....	.016	.007	.249	1.549	.336	1.885	.001	.017	2.174
May .....	.025	.004	.265	1.659	.378	2.037	.002	.019	2.351
June .....	.018	.001	.266	1.640	.375	2.015	.003	.018	2.322
July .....	.022	.001	.288	1.603	.361	1.964	.004	.023	2.303
August .....	.017	.001	.288	1.608	.380	1.988	.007	.022	2.322
September .....	.021	.002	.264	1.510	.349	1.859	.007	.017	2.170
October .....	.022	.001	.259	1.507	.333	1.840	.007	.015	2.144
November .....	.020	.001	.239	1.465	.319	1.784	.007	.016	2.068
<b>11-Month Total</b> .....	<b>.211</b>	<b>.026</b>	<b>2.956</b>	<b>17.261</b>	<b>3.854</b>	<b>21.115</b>	<b>.040</b>	<b>.187</b>	<b>24.535</b>
<b>2011 11-Month Total</b> .....	<b>.303</b>	<b>.032</b>	<b>3.250</b>	<b>17.972</b>	<b>4.748</b>	<b>22.721</b>	<b>.014</b>	<b>.164</b>	<b>26.483</b>
<b>2010 11-Month Total</b> .....	<b>.445</b>	<b>.030</b>	<b>3.474</b>	<b>18.526</b>	<b>4.811</b>	<b>23.337</b>	<b>.004</b>	<b>.140</b>	<b>27.430</b>

<sup>a</sup> Crude oil and lease condensate. Includes imports into the Strategic Petroleum Reserve, which began in 1977.

<sup>b</sup> Petroleum products, unfinished oils, pentanes plus, and gasoline blending components. Does not include biofuels.

<sup>c</sup> 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> for all

available data beginning in 1973.

Sources: • **Coal:** Tables 6.1 and A5. • **Coal Coke:** 1973-1975—U.S. Department of the Interior, Bureau of Mines, *Minerals Yearbook*, "Coke and Coal Chemicals" chapter. 1976-1980—U.S. Energy Information Administration (EIA), *Energy Data Report*, "Coke and Coal Chemicals," annual reports. 1981 forward—EIA, *Quarterly Coal Report*, quarterly reports 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 <sup>a</sup>
	Coal	Coal Coke	Natural Gas	Petroleum			Biofuels <sup>d</sup>	Electricity	Total	
				Crude Oil <sup>b</sup>	Petroleum Products <sup>c</sup>	Total				
<b>1973 Total</b> .....	1.425	0.035	0.079	0.004	0.482	0.486	NA	0.009	2.033	12.580
<b>1975 Total</b> .....	1.761	.032	.074	.012	.427	.439	NA	.017	2.323	11.709
<b>1980 Total</b> .....	2.421	.051	.049	.609	.551	1.160	NA	.014	3.695	12.101
<b>1985 Total</b> .....	2.438	.028	.056	.432	1.225	1.657	NA	.017	4.196	7.584
<b>1990 Total</b> .....	2.772	.014	.087	.230	1.594	1.824	NA	.055	4.752	14.065
<b>1995 Total</b> .....	2.318	.034	.156	.200	1.791	1.991	NA	.012	4.511	17.750
<b>1996 Total</b> .....	2.368	.040	.155	.233	1.825	2.059	NA	.011	4.633	19.069
<b>1997 Total</b> .....	2.193	.031	.159	.228	1.872	2.100	NA	.031	4.514	20.701
<b>1998 Total</b> .....	2.092	.028	.161	.233	1.740	1.972	NA	.047	4.299	22.281
<b>1999 Total</b> .....	1.525	.022	.164	.250	1.705	1.955	NA	.049	3.715	23.537
<b>2000 Total</b> .....	1.528	.028	.245	.106	2.048	2.154	NA	.051	4.006	24.967
<b>2001 Total</b> .....	1.265	.033	.377	.043	1.996	2.039	(s)	.056	3.771	26.386
<b>2002 Total</b> .....	1.032	.020	.520	.019	2.023	2.042	(s)	.054	3.669	25.739
<b>2003 Total</b> .....	1.117	.018	.686	.026	2.124	2.151	.001	.082	4.054	27.007
<b>2004 Total</b> .....	1.253	.033	.862	.057	2.151	2.208	.001	.078	4.434	29.110
<b>2005 Total</b> .....	1.273	.043	.735	.067	2.374	2.442	.001	.065	4.560	30.149
<b>2006 Total</b> .....	1.264	.040	.730	.052	2.699	2.751	.004	.083	4.872	29.806
<b>2007 Total</b> .....	1.507	.036	.830	.058	2.949	3.007	.035	.069	5.482	29.221
<b>2008 Total</b> .....	2.071	.049	.972	.061	3.739	3.800	.086	.083	7.060	25.932
<b>2009 Total</b> .....	1.515	.032	1.082	.093	4.147	4.240	.034	.062	6.965	22.741
<b>2010</b>										
January .....	.151	.006	.094	.006	.327	.332	.003	.004	.590	1.926
February .....	.138	.001	.089	.009	.312	.321	.003	.003	.556	1.681
March .....	.169	(s)	.100	.008	.366	.374	.006	.004	.654	1.865
April .....	.189	.001	.077	.006	.404	.411	.005	.004	.686	1.894
May .....	.186	.003	.086	.007	.414	.420	.003	.006	.704	1.874
June .....	.190	.004	.091	.005	.385	.391	.003	.005	.684	1.872
July .....	.178	.003	.087	.012	.428	.440	.003	.005	.716	1.989
August .....	.180	.002	.085	.006	.415	.421	.004	.006	.698	1.929
September .....	.184	.003	.080	.011	.385	.396	.004	.008	.675	1.757
October .....	.170	.003	.097	.004	.429	.433	.004	.007	.714	1.676
November .....	.180	.006	.125	.006	.433	.439	.004	.006	.760	1.529
December .....	.186	.005	.136	.007	.452	.459	.007	.005	.797	1.650
<b>Total</b> .....	<b>2.101</b>	<b>.036</b>	<b>1.147</b>	<b>.088</b>	<b>4.750</b>	<b>4.838</b>	<b>.046</b>	<b>.065</b>	<b>8.234</b>	<b>21.643</b>
<b>2011</b>										
January .....	.218	.001	.137	.013	.460	.473	.006	.005	.841	1.815
February .....	.212	.002	.126	.005	.403	.408	.005	.005	.759	1.367
March .....	.252	.001	.146	.007	.461	.467	.008	.005	.880	1.664
April .....	.227	.001	.128	.007	.499	.506	.011	.005	.878	1.533
May .....	.232	.002	.133	.007	.462	.469	.007	.004	.847	1.651
June .....	.233	.003	.121	.006	.444	.451	.006	.004	.818	1.600
July .....	.202	.003	.114	.013	.506	.520	.011	.004	.854	1.652
August .....	.241	.001	.112	.006	.511	.517	.005	.003	.879	1.527
September .....	.224	.003	.128	.006	.518	.524	.010	.003	.892	1.400
October .....	.235	.002	.110	.009	.520	.529	.011	.003	.891	1.461
November .....	.226	.004	.129	.011	.507	.518	.013	.004	.894	1.380
December .....	.249	.001	.136	.010	.613	.622	.014	.003	1.026	1.347
<b>Total</b> .....	<b>2.751</b>	<b>.024</b>	<b>1.521</b>	<b>.100</b>	<b>5.904</b>	<b>6.004</b>	<b>.108</b>	<b>.051</b>	<b>10.458</b>	<b>18.397</b>
<b>2012</b>										
January .....	.234	.001	.132	.010	.476	.487	.008	.003	.864	1.463
February .....	.217	.002	.131	.010	.468	.478	.007	.003	.838	1.262
March .....	.284	.002	.142	.011	.514	.525	.008	.004	.964	1.291
April .....	.321	.001	.124	.006	.536	.542	.007	.004	1.000	1.174
May .....	.314	.003	.134	.012	.537	.550	.006	.004	1.012	1.340
June .....	.327	.001	.126	.008	.526	.534	.007	.004	.999	1.322
July .....	.298	.001	.119	.014	.538	.552	.007	.003	.982	1.321
August .....	.272	.001	.141	.011	.509	.520	.006	.003	.942	1.380
September .....	.240	.003	.139	.010	.515	.525	.006	.003	.915	1.255
October .....	.242	.004	.141	.012	.549	.561	.006	.003	.955	1.188
November .....	.218	.004	.143	.013	.556	.569	.004	.003	.941	1.127
<b>11-Month Total</b> .....	<b>2.967</b>	<b>.022</b>	<b>1.473</b>	<b>.116</b>	<b>5.724</b>	<b>5.841</b>	<b>.071</b>	<b>.037</b>	<b>10.412</b>	<b>14.123</b>
<b>2011 11-Month Total</b> .....	<b>2.502</b>	<b>.023</b>	<b>1.385</b>	<b>.090</b>	<b>5.291</b>	<b>5.381</b>	<b>.094</b>	<b>.048</b>	<b>9.433</b>	<b>17.050</b>
<b>2010 11-Month Total</b> .....	<b>1.915</b>	<b>.031</b>	<b>1.011</b>	<b>.081</b>	<b>4.298</b>	<b>4.379</b>	<b>.040</b>	<b>.061</b>	<b>7.436</b>	<b>19.993</b>

<sup>a</sup> Net imports equal imports minus exports.

<sup>b</sup> Crude oil and lease condensate.

<sup>c</sup> Petroleum products, unfinished oils, pentanes plus, and gasoline blending components. Does not include biofuels.

<sup>d</sup> 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.

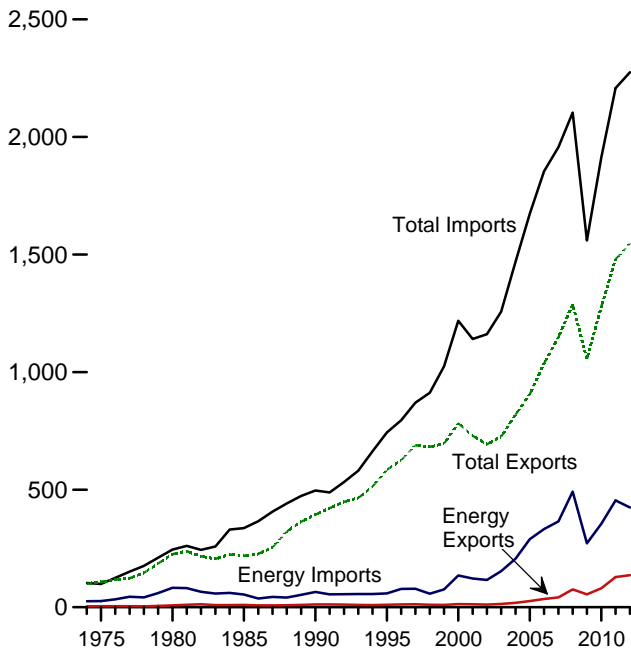
Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#summary> for all available data beginning in 1973.

Sources: • **Coal**: Tables 6.1 and A5. • **Coal Coke**: 1973-1975—U.S. Department of the Interior, Bureau of Mines, *Minerals Yearbook*, "Coke and Coal Chemicals" chapter. 1976-1980—U.S. Energy Information Administration (EIA), *Energy Data Report*, "Coke and Coal Chemicals," annual reports. 1981 forward—EIA, *Quarterly Coal Report*, quarterly reports and Table A5.

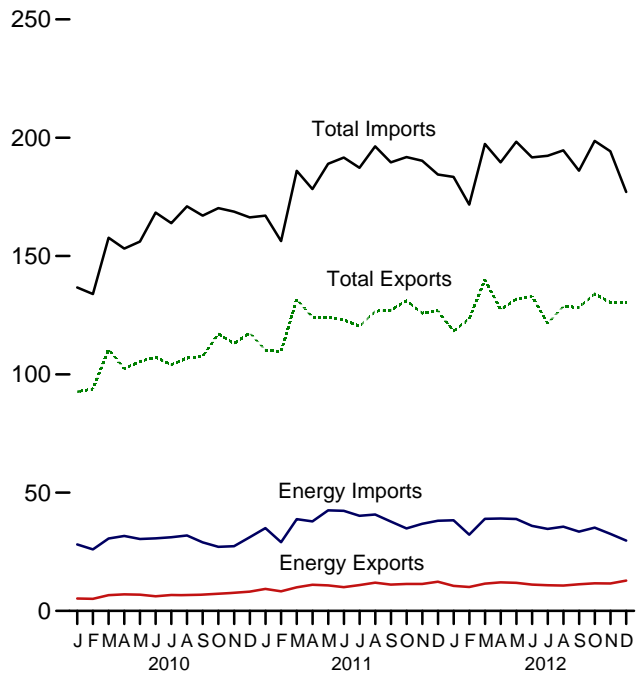
• **Natural Gas**: Tables 4.1 and A4. • **Crude Oil and Petroleum Products**: Tables 3.3b, 10.4, and A2. • **Biofuels**: Tables 10.3, 10.4 and A3. • **Electricity**: Tables 7.1 and A6.

**Figure 1.5 Merchandise Trade Value**  
(Billion Dollars<sup>a</sup>)

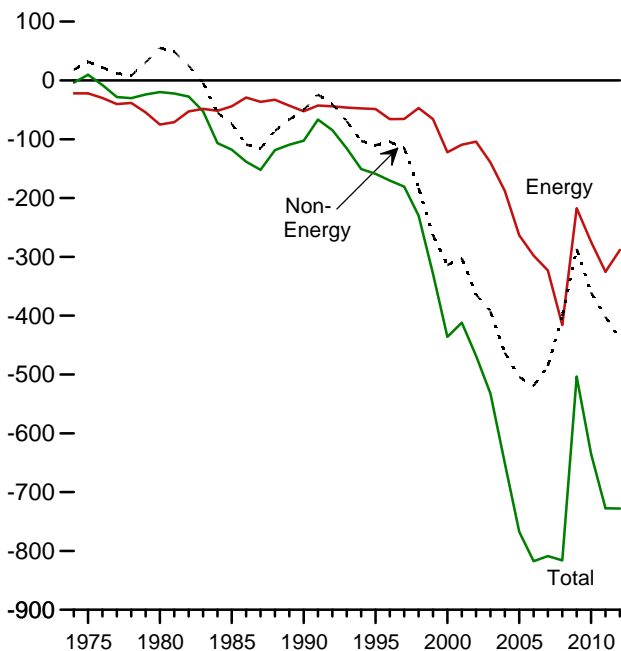
Imports and Exports, 1974-2012



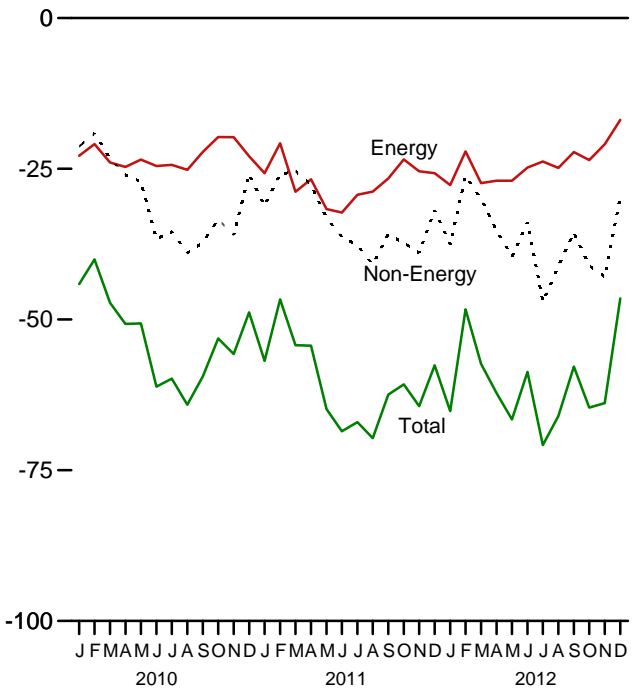
Imports and Exports, Monthly



Trade Balance, 1974-2012



Trade Balance, Monthly



<sup>a</sup> 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<sup>a</sup>)

	Petroleum <sup>b</sup>			Energy <sup>c</sup>			Non-Energy Balance	Total Merchandise		
	Exports	Imports	Balance	Exports	Imports	Balance		Exports	Imports	Balance
1974 Total .....	792	24,668	-23,876	3,444	25,454	-22,010	18,126	99,437	103,321	-3,884
1975 Total .....	907	25,197	-24,289	4,470	26,476	-22,006	31,557	108,856	99,305	9,551
1980 Total .....	2,833	78,637	-75,803	7,982	82,924	-74,942	55,246	225,566	245,262	-19,696
1985 Total .....	4,707	50,475	-45,768	9,971	53,917	-43,946	-73,765	218,815	336,526	-117,712
1990 Total .....	6,901	61,583	-54,682	12,233	64,661	-52,428	-50,068	393,592	496,088	-102,496
1995 Total .....	6,321	54,368	-48,047	10,358	59,109	-48,751	-110,050	584,742	743,543	-158,801
1996 Total .....	7,984	72,022	-64,038	12,181	78,086	-65,905	-104,309	625,075	795,289	-170,214
1997 Total .....	8,592	71,152	-62,560	12,682	78,277	-65,595	-114,927	689,182	869,704	-180,522
1998 Total .....	6,574	50,264	-43,690	10,251	57,323	-47,072	-182,686	682,138	911,896	-229,758
1999 Total .....	7,118	67,173	-60,055	9,880	75,803	-65,923	-262,898	695,797	1,024,618	-328,821
2000 Total .....	10,192	119,251	-109,059	13,179	135,367	-122,188	-313,916	781,918	1,218,022	-436,104
2001 Total .....	8,868	102,747	-93,879	12,494	121,923	-109,429	-302,470	729,100	1,140,999	-411,899
2002 Total .....	8,569	102,663	-94,094	11,541	115,748	-104,207	-364,056	693,103	1,161,366	-468,263
2003 Total .....	10,209	132,433	-122,224	13,768	153,298	-139,530	-392,820	724,771	1,257,121	-532,350
2004 Total .....	13,130	179,266	-166,136	18,642	206,660	-188,018	-462,912	818,775	1,469,704	-650,930
2005 Total .....	19,155	250,068	-230,913	26,488	289,723	-263,235	-504,242	905,978	1,673,455	-767,477
2006 Total .....	28,171	299,714	-271,543	34,711	332,500	-297,789	-519,515	1,036,635	1,853,938	-817,304
2007 Total .....	33,293	327,620	-294,327	41,725	364,987	-323,262	-485,501	1,148,199	1,956,962	-808,763
2008 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
<b>2010</b> January .....	4,083	25,234	-21,151	5,236	28,075	-22,839	-21,285	92,601	136,725	-44,124
February .....	4,003	23,666	-19,663	5,115	26,018	-20,903	-19,141	93,854	133,898	-40,044
March .....	5,348	28,549	-23,201	6,667	30,613	-23,946	-23,271	110,511	157,728	-47,217
April .....	5,680	30,016	-24,336	6,970	31,657	-24,687	-26,034	102,443	153,163	-50,721
May .....	5,484	28,733	-23,249	6,887	30,369	-23,482	-27,165	105,477	156,124	-50,647
June .....	4,798	29,011	-24,213	6,170	30,698	-24,528	-36,592	107,202	168,321	-61,120
July .....	5,505	29,218	-23,713	6,760	31,113	-24,353	-35,451	104,057	163,861	-59,804
August .....	5,346	30,130	-24,784	6,744	31,907	-25,163	-38,957	106,846	170,966	-64,120
September .....	5,482	27,479	-21,997	6,802	28,992	-22,190	-37,244	107,644	167,078	-59,434
October .....	6,084	25,556	-19,472	7,318	27,056	-19,738	-33,397	117,104	170,239	-53,135
November .....	6,272	25,982	-19,710	7,610	27,363	-19,753	-35,966	113,046	168,765	-55,719
December .....	6,694	29,892	-23,198	8,182	31,107	-22,925	-25,888	117,480	166,293	-48,813
<b>Total .....</b>	<b>64,778</b>	<b>333,465</b>	<b>-268,687</b>	<b>80,460</b>	<b>354,968</b>	<b>-274,508</b>	<b>-360,389</b>	<b>1,278,263</b>	<b>1,913,160</b>	<b>-634,897</b>
<b>2011</b> January .....	7,446	33,050	-25,604	9,275	35,010	-25,735	-31,134	110,179	167,048	-56,869
February .....	6,604	27,551	-20,947	8,291	29,062	-20,771	-25,897	109,647	156,315	-46,668
March .....	7,841	37,096	-29,255	9,958	38,763	-28,805	-25,442	131,728	185,975	-54,247
April .....	9,016	36,457	-27,441	11,059	37,803	-26,744	-27,589	123,959	178,293	-54,333
May .....	8,767	41,002	-32,235	10,795	42,470	-31,675	-33,171	124,107	188,953	-64,846
June .....	8,032	40,872	-32,840	10,039	42,305	-32,266	-36,274	123,039	191,579	-68,540
July .....	9,069	38,622	-29,553	10,902	40,224	-29,322	-37,702	120,239	187,263	-67,024
August .....	9,912	39,063	-29,151	11,940	40,732	-28,792	-40,896	126,633	196,321	-69,688
September .....	9,202	36,467	-27,265	11,141	37,741	-26,600	-35,855	127,107	189,562	-62,455
October .....	9,573	33,467	-23,894	11,410	34,857	-23,447	-37,306	131,058	191,811	-60,753
November .....	9,533	35,665	-26,132	11,401	36,821	-25,420	-38,944	125,899	190,263	-64,364
December .....	10,501	36,831	-26,330	12,353	38,083	-25,730	-31,876	126,837	184,443	-57,606
<b>Total .....</b>	<b>105,499</b>	<b>436,145</b>	<b>-330,646</b>	<b>128,564</b>	<b>453,872</b>	<b>-325,308</b>	<b>-402,084</b>	<b>1,480,432</b>	<b>2,207,824</b>	<b>-727,392</b>
<b>2012</b> January .....	8,730	37,044	-28,314	10,606	38,290	-27,684	-37,519	118,209	183,411	-65,203
February .....	8,605	31,171	-22,566	10,124	32,250	-22,126	-26,181	123,428	171,735	-48,307
March .....	9,709	37,933	-28,224	11,552	38,937	-27,385	-29,974	139,965	197,324	-57,359
April .....	10,152	38,129	-27,977	12,057	39,043	-26,986	-35,179	127,411	189,577	-62,165
May .....	10,056	37,835	-27,779	11,858	38,829	-26,971	-39,590	131,735	198,296	-66,561
June .....	9,228	35,043	-25,815	11,100	35,910	-24,810	-33,876	133,018	191,704	-58,686
July .....	9,154	33,604	-24,450	10,887	34,683	-23,796	-47,011	121,558	192,366	-70,807
August .....	9,090	34,640	-25,550	10,748	35,594	-24,846	-41,178	128,632	194,656	-66,024
September .....	9,772	32,562	-22,790	11,263	33,497	-22,234	-35,579	128,237	186,050	-57,813
October .....	10,106	34,131	-24,025	11,639	35,198	-23,559	-41,057	134,020	198,636	-64,616
November .....	10,253	31,386	-21,133	11,618	32,555	-20,937	<sup>R</sup> -42,924	<sup>R</sup> 130,374	<sup>R</sup> 194,235	<sup>R</sup> -63,861
December .....	11,194	28,524	-17,330	12,834	29,717	-16,883	-29,619	130,551	177,053	-46,502
<b>Total .....</b>	<b>116,048</b>	<b>412,002</b>	<b>-295,954</b>	<b>136,287</b>	<b>424,505</b>	<b>-288,218</b>	<b>-439,687</b>	<b>1,547,137</b>	<b>2,275,043</b>	<b>-727,905</b>

<sup>a</sup> Prices are not adjusted for inflation. See "Nominal Dollars" in Glossary.

<sup>b</sup> Crude oil, petroleum preparations, liquefied propane and butane, and other mineral fuels.

<sup>c</sup> Petroleum, coal, natural gas, and electricity.

<sup>R</sup>=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

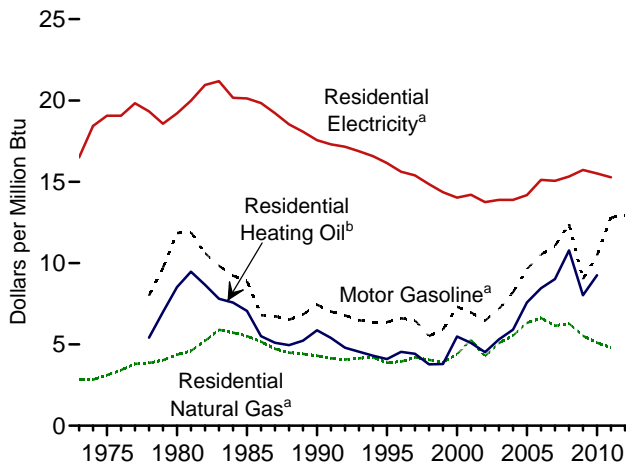
components due to independent rounding. • The U.S. import statistics reflect both government and nongovernment imports of merchandise from foreign countries into the U.S. customs territory, which comprises the 50 States, the District of Columbia, Puerto Rico, and the Virgin Islands.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#summary> for all available data beginning in 1974.

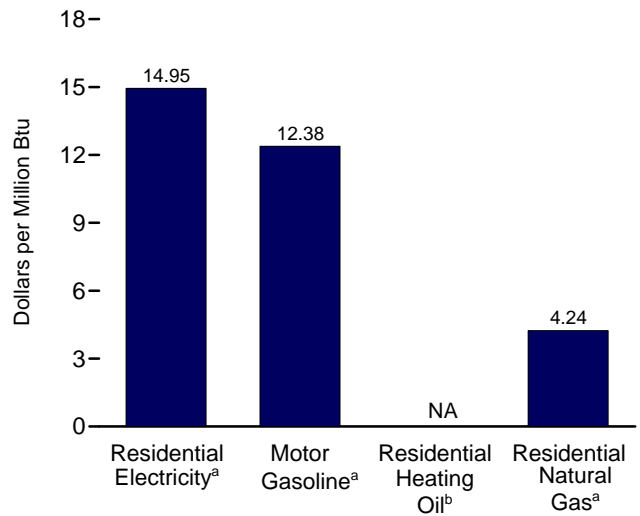
Sources: See end of section.

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

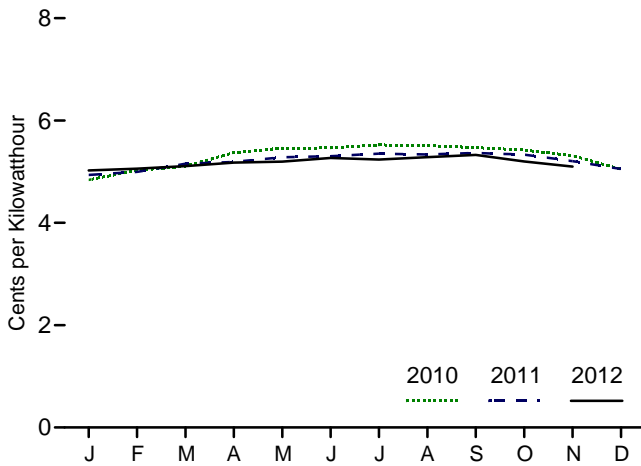
Costs, 1973-2012



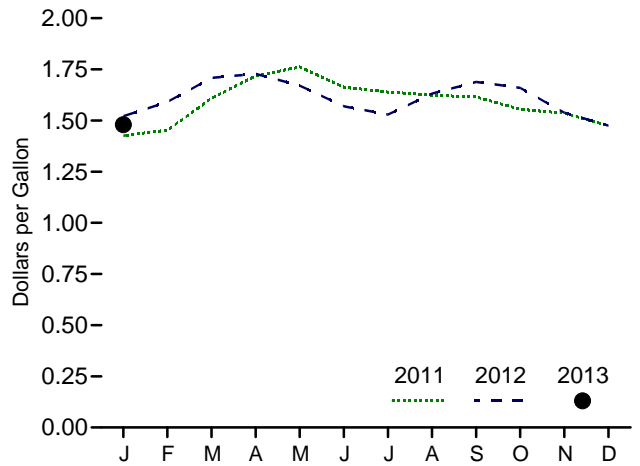
Costs, November 2012



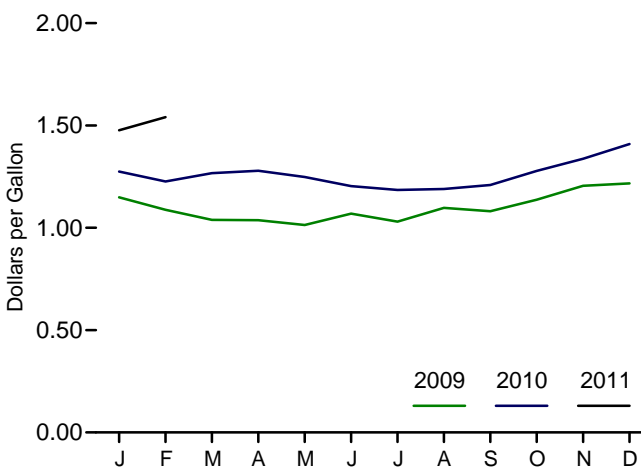
Residential Electricity,<sup>a</sup> Monthly



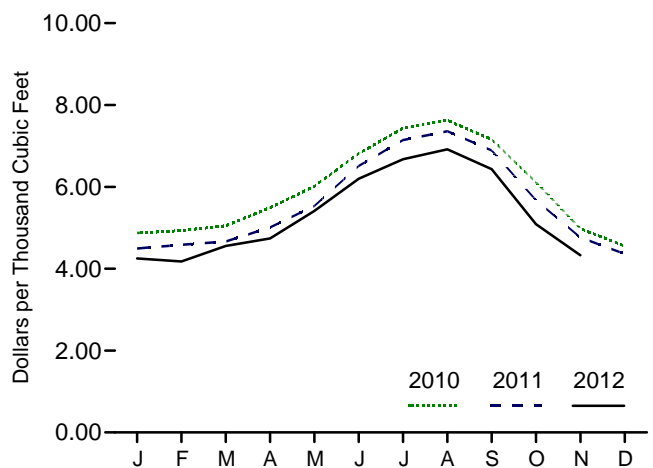
Motor Gasoline,<sup>a</sup> Monthly



Residential Heating Oil,<sup>b</sup> Monthly



Residential Natural Gas,<sup>a</sup> Monthly



<sup>a</sup> Includes taxes.  
<sup>b</sup> Excludes taxes.  
 NA=Not available.

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 <sup>a</sup>	Motor Gasoline <sup>b</sup>		Residential Heating Oil <sup>c</sup>		Residential Natural Gas <sup>b</sup>		Residential Electricity <sup>b</sup>	
	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
<b>1973 Average</b> .....	<b>44.4</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>2.91</b>	<b>2.85</b>	<b>5.6</b>	<b>16.50</b>
<b>1975 Average</b> .....	<b>53.8</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>3.18</b>	<b>3.12</b>	<b>6.5</b>	<b>19.07</b>
<b>1980 Average</b> .....	<b>82.4</b>	<b>1.482</b>	<b>11.85</b>	<b>1.182</b>	<b>8.52</b>	<b>4.47</b>	<b>4.36</b>	<b>6.6</b>	<b>19.21</b>
<b>1985 Average</b> .....	<b>107.6</b>	<b>1.112</b>	<b>8.89</b>	<b>0.979</b>	<b>7.06</b>	<b>5.69</b>	<b>5.52</b>	<b>6.87</b>	<b>20.13</b>
<b>1990 Average</b> .....	<b>130.7</b>	<b>0.931</b>	<b>7.44</b>	<b>0.813</b>	<b>5.86</b>	<b>4.44</b>	<b>4.31</b>	<b>5.99</b>	<b>17.56</b>
<b>1995 Average</b> .....	<b>152.4</b>	<b>0.791</b>	<b>6.37</b>	<b>0.569</b>	<b>4.10</b>	<b>3.98</b>	<b>3.87</b>	<b>5.51</b>	<b>16.15</b>
<b>1996 Average</b> .....	<b>156.9</b>	<b>0.821</b>	<b>6.61</b>	<b>0.630</b>	<b>4.54</b>	<b>4.04</b>	<b>3.94</b>	<b>5.33</b>	<b>15.62</b>
<b>1997 Average</b> .....	<b>160.5</b>	<b>0.804</b>	<b>6.48</b>	<b>0.613</b>	<b>4.42</b>	<b>4.32</b>	<b>4.21</b>	<b>5.25</b>	<b>15.39</b>
<b>1998 Average</b> .....	<b>163.0</b>	<b>0.684</b>	<b>5.51</b>	<b>0.523</b>	<b>3.77</b>	<b>4.18</b>	<b>4.05</b>	<b>5.07</b>	<b>14.85</b>
<b>1999 Average</b> .....	<b>166.6</b>	<b>0.733</b>	<b>5.91</b>	<b>0.526</b>	<b>3.79</b>	<b>4.02</b>	<b>3.91</b>	<b>4.90</b>	<b>14.36</b>
<b>2000 Average</b> .....	<b>172.2</b>	<b>0.908</b>	<b>7.32</b>	<b>0.761</b>	<b>5.49</b>	<b>4.51</b>	<b>4.39</b>	<b>4.79</b>	<b>14.02</b>
<b>2001 Average</b> .....	<b>177.1</b>	<b>0.864</b>	<b>6.97</b>	<b>0.706</b>	<b>5.09</b>	<b>5.44</b>	<b>5.28</b>	<b>4.84</b>	<b>14.20</b>
<b>2002 Average</b> .....	<b>179.9</b>	<b>0.801</b>	<b>6.46</b>	<b>0.628</b>	<b>4.52</b>	<b>4.39</b>	<b>4.28</b>	<b>4.69</b>	<b>13.75</b>
<b>2003 Average</b> .....	<b>184.0</b>	<b>0.890</b>	<b>7.18</b>	<b>0.736</b>	<b>5.31</b>	<b>5.23</b>	<b>5.09</b>	<b>4.74</b>	<b>13.89</b>
<b>2004 Average</b> .....	<b>188.9</b>	<b>1.018</b>	<b>8.20</b>	<b>0.819</b>	<b>5.91</b>	<b>5.69</b>	<b>5.55</b>	<b>4.74</b>	<b>13.89</b>
<b>2005 Average</b> .....	<b>195.3</b>	<b>1.197</b>	<b>9.64</b>	<b>1.051</b>	<b>7.58</b>	<b>6.50</b>	<b>6.33</b>	<b>4.84</b>	<b>14.18</b>
<b>2006 Average</b> .....	<b>201.6</b>	<b>1.307</b>	<b>10.52</b>	<b>1.173</b>	<b>8.46</b>	<b>6.81</b>	<b>6.63</b>	<b>5.16</b>	<b>15.12</b>
<b>2007 Average</b> .....	<b>207.342</b>	<b>1.374</b>	<b>11.06</b>	<b>1.250</b>	<b>9.01</b>	<b>6.31</b>	<b>6.14</b>	<b>5.14</b>	<b>15.05</b>
<b>2008 Average</b> .....	<b>215.303</b>	<b>1.541</b>	<b>12.40</b>	<b>1.495</b>	<b>10.78</b>	<b>6.45</b>	<b>6.28</b>	<b>5.23</b>	<b>15.33</b>
<b>2009 Average</b> .....	<b>214.537</b>	<b>1.119</b>	<b>9.01</b>	<b>1.112</b>	<b>8.02</b>	<b>5.66</b>	<b>5.52</b>	<b>5.37</b>	<b>15.72</b>
<b>2010 January</b> .....	<b>216.687</b>	<b>1.282</b>	<b>10.32</b>	<b>1.275</b>	<b>9.19</b>	<b>4.87</b>	<b>4.76</b>	<b>4.84</b>	<b>14.19</b>
February .....	216.741	1.250	10.06	1.226	8.84	4.93	4.82	5.02	14.73
March .....	217.631	1.300	10.46	1.267	9.13	5.05	4.94	5.10	14.96
April .....	218.009	1.333	10.73	1.278	9.22	5.49	5.37	5.37	15.74
May .....	218.178	1.336	10.75	1.248	9.00	6.01	5.88	5.46	16.00
June .....	217.965	1.277	10.28	1.203	8.68	6.82	6.66	5.46	16.01
July .....	218.011	1.277	10.27	1.185	8.55	7.44	7.27	5.52	16.19
August .....	218.312	1.280	10.31	1.190	8.58	7.63	7.46	5.51	16.15
September .....	218.439	1.261	10.15	1.209	8.72	7.16	6.99	5.47	16.03
October .....	218.711	1.300	10.46	1.278	9.21	6.11	5.98	5.42	15.89
November .....	218.803	1.325	10.66	1.337	9.64	4.98	4.87	5.31	15.66
December .....	219.179	1.383	11.13	1.409	10.16	4.55	4.45	5.05	14.79
<b>Average</b> .....	<b>218.056</b>	<b>1.301</b>	<b>10.47</b>	<b>1.283</b>	<b>9.25</b>	<b>5.22</b>	<b>5.11</b>	<b>5.29</b>	<b>15.51</b>
<b>2011 January</b> .....	<b>220.223</b>	<b>1.425</b>	<b>11.47</b>	<b>1.476</b>	<b>10.64</b>	<b>4.50</b>	<b>4.40</b>	<b>4.94</b>	<b>14.47</b>
February .....	221.309	1.453	11.69	1.540	11.11	4.58	4.48	5.00	14.65
March .....	223.467	1.608	12.95	NA	NA	4.67	4.57	5.16	15.11
April .....	224.906	1.718	13.83	NA	NA	5.01	4.90	5.19	15.21
May .....	225.964	1.762	14.18	NA	NA	5.53	5.41	5.28	15.47
June .....	225.722	1.663	13.38	NA	NA	6.51	6.37	5.30	15.54
July .....	225.922	1.639	13.19	NA	NA	7.14	6.99	5.35	15.68
August .....	226.545	1.624	13.07	NA	NA	7.36	7.20	5.34	15.64
September .....	226.889	1.615	13.00	NA	NA	6.89	6.74	5.36	15.72
October .....	226.421	1.555	12.52	NA	NA	5.68	5.55	5.34	15.64
November .....	226.230	1.536	12.36	NA	NA	4.77	4.66	5.21	15.26
December .....	225.672	1.475	11.87	NA	NA	4.36	4.27	5.05	14.81
<b>Average</b> .....	<b>224.939</b>	<b>1.590</b>	<b>12.80</b>	<b>NA</b>	<b>NA</b>	<b>4.90</b>	<b>4.80</b>	<b>5.21</b>	<b>15.27</b>
<b>2012 January</b> .....	<b>226.665</b>	<b>1.521</b>	<b>12.24</b>	<b>NA</b>	<b>NA</b>	<b>4.25</b>	<b>4.16</b>	<b>5.03</b>	<b>14.73</b>
February .....	227.663	1.591	12.81	NA	NA	4.18	4.09	5.06	14.83
March .....	229.392	1.708	13.75	NA	NA	4.56	4.46	5.11	14.97
April .....	230.085	1.728	13.91	NA	NA	4.74	4.64	5.18	15.17
May .....	229.815	1.670	13.45	NA	NA	5.41	5.30	5.20	15.23
June .....	229.478	1.570	12.63	NA	NA	6.20	6.06	5.27	15.44
July .....	229.104	1.529	12.30	NA	NA	6.67	6.53	5.24	15.35
August .....	230.379	1.632	13.13	NA	NA	6.92	6.77	5.28	15.48
September .....	231.407	1.689	13.59	NA	NA	6.44	6.30	5.33	15.62
October .....	231.317	1.660	13.36	NA	NA	<sup>R</sup> 5.09	<sup>R</sup> 4.98	5.20	15.24
November .....	230.221	1.539	12.38	NA	NA	<sup>R</sup> 4.33	<sup>R</sup> 4.24	<sup>R</sup> 5.10	<sup>R</sup> 14.95
December .....	229.601	1.475	11.87	NA	NA	NA	NA	NA	NA
<b>Average</b> .....	<b>229.594</b>	<b>1.609</b>	<b>12.95</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>
<b>2013 January</b> .....	<b>230.280</b>	<b>1.480</b>	<b>11.91</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>

<sup>a</sup> Data are U.S. city averages for all items, and are not seasonally adjusted.

<sup>b</sup> Includes taxes.

<sup>c</sup> Excludes taxes.

R=Revised. NA=Not available.

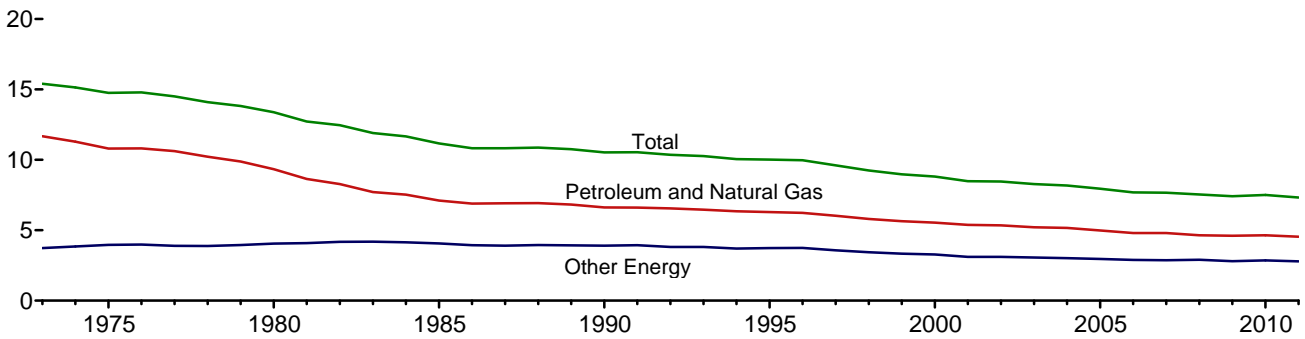
Notes: • See "Real Dollars" in Glossary. • Fuel costs are calculated by using the Urban Consumer Price Index (CPI) developed by the Bureau of Labor Statistics. • Annual averages may not equal average of months due to independent rounding. • Geographic coverage is the 50 States and the District of

Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#summary> for all available data beginning in 1973.

Sources: • **Fuel Prices:** Tables 9.4 (All Types), 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, 1973-2011**  
(Thousand Btu per Chained (2005) Dollar)



Note: See "Real Dollars" in Glossary.  
Web Page: <http://www.eia.gov/totalenergy/data/monthly/#summary>.  
Source: Table 1.7.

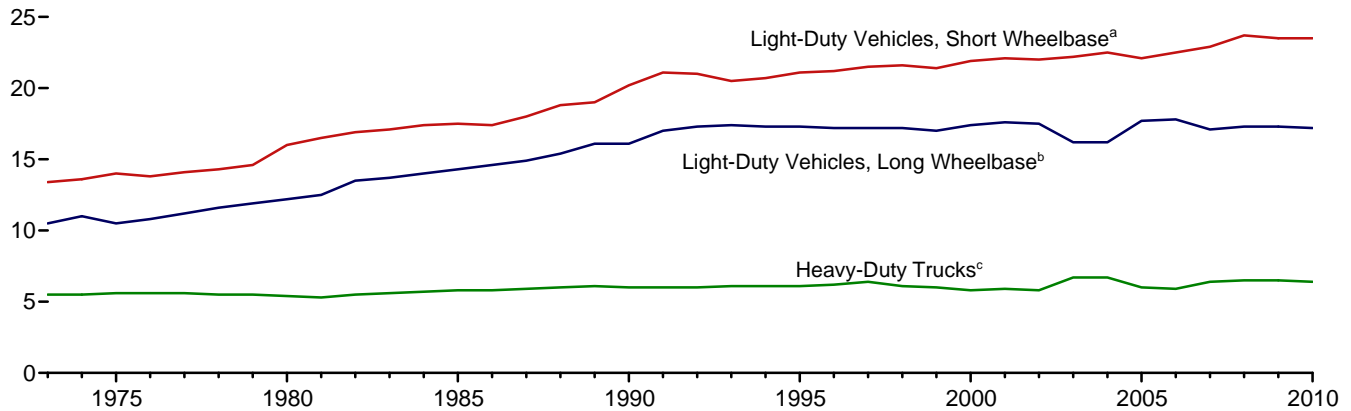
**Table 1.7 Primary Energy Consumption per Real Dollar of Gross Domestic Product**

	Energy Consumption			Gross Domestic Product (GDP)	Energy Consumption per Real Dollar of GDP		
	Petroleum and Natural Gas	Other Energy <sup>a</sup>	Total		Petroleum and Natural Gas	Other Energy <sup>a</sup>	Total
	Quadrillion Btu				Billion Chained (2005) Dollars	Thousand Btu per Chained (2005) Dollar	
1973 Year .....	57.350	18.334	75.684	4,912.8	11.67	3.73	15.41
1974 Year .....	55.186	18.776	73.962	4,885.7	11.30	3.84	15.14
1975 Year .....	52.680	19.284	71.965	4,875.4	10.81	3.96	14.76
1976 Year .....	55.523	20.452	75.975	5,136.9	10.81	3.98	14.79
1977 Year .....	57.054	20.907	77.961	5,373.1	10.62	3.89	14.51
1978 Year .....	57.963	21.987	79.950	5,672.8	10.22	3.88	14.09
1979 Year .....	57.788	23.070	80.859	5,850.1	9.88	3.94	13.82
1980 Year .....	54.440	23.627	78.067	5,834.0	9.33	4.05	13.38
1981 Year .....	51.680	24.426	76.106	5,982.1	8.64	4.08	12.72
1982 Year .....	48.588	24.511	73.099	5,865.9	8.28	4.18	12.46
1983 Year .....	47.273	25.698	72.971	6,130.9	7.71	4.19	11.90
1984 Year .....	49.447	27.185	76.632	6,571.5	7.52	4.14	11.66
1985 Year .....	48.628	27.764	76.392	6,843.4	7.11	4.06	11.16
1986 Year .....	48.790	27.857	76.647	7,080.5	6.89	3.93	10.83
1987 Year .....	50.504	28.551	79.054	7,307.0	6.91	3.91	10.82
1988 Year .....	52.671	30.038	82.709	7,607.4	6.92	3.95	10.87
1989 Year .....	53.811	30.975	84.786	7,879.2	6.83	3.93	10.76
1990 Year .....	53.155	31.330	84.485	8,027.1	6.62	3.90	10.52
1991 Year .....	52.879	31.559	84.438	8,008.3	6.60	3.94	10.54
1992 Year .....	54.239	31.544	85.783	8,280.0	6.55	3.81	10.36
1993 Year .....	54.973	32.450	87.424	8,516.2	6.46	3.81	10.27
1994 Year .....	56.289	32.803	89.091	8,863.1	6.35	3.70	10.05
1995 Year .....	57.110	33.920	91.029	9,086.0	6.29	3.73	10.02
1996 Year .....	58.760	35.262	94.022	9,425.8	6.23	3.74	9.97
1997 Year .....	59.382	35.221	94.602	9,845.9	6.03	3.58	9.61
1998 Year .....	59.646	35.372	95.018	10,274.7	5.81	3.44	9.25
1999 Year .....	60.747	35.905	96.652	10,770.7	5.64	3.33	8.97
2000 Year .....	62.086	36.729	98.814	11,216.4	5.54	3.27	8.81
2001 Year .....	60.958	35.210	96.168	11,337.5	5.38	3.11	8.48
2002 Year .....	61.734	35.911	97.645	11,543.1	5.35	3.11	8.46
2003 Year .....	61.642	36.301	97.943	11,836.4	5.21	3.07	8.27
2004 Year .....	63.215	36.945	100.160	12,246.9	5.16	3.02	8.18
2005 Year .....	62.953	37.328	100.282	12,623.0	4.99	2.96	7.94
2006 Year .....	62.194	37.435	99.629	12,958.5	4.80	2.89	7.69
2007 Year .....	63.437	37.859	101.296	13,206.4	4.80	2.87	7.67
2008 Year .....	61.123	38.152	99.275	13,161.9	4.64	2.90	7.54
2009 Year .....	58.819	35.740	94.559	12,757.9	4.61	2.80	7.41
2010 Year .....	60.584	37.398	97.982	13,063.0	4.64	2.86	7.50
2011 Year .....	60.325	<sup>R</sup> 37.142	<sup>R</sup> 97.467	13,299.1	4.54	2.79	7.33

<sup>a</sup> Coal, coal coke net imports, nuclear electric power, renewable energy, and electricity net imports.  
R=Revised.  
Notes: • See "Primary Energy Consumption" and "Real Dollars" in Glossary.  
• Totals may not equal sum of components due to independent rounding.  
• Geographic coverage is the 50 States and the District of

Columbia.  
Web Page: <http://www.eia.gov/totalenergy/data/monthly/#summary>.  
Sources: • **Energy Consumption:** Table 1.3. • **Gross Domestic Product:** U.S. Department of Commerce, Bureau of Economic Analysis, National Income and Product Accounts (January 30, 2012), Table 1.1.6.

**Figure 1.8 Motor Vehicle Fuel Economy, 1973-2010**  
(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 <sup>a</sup>			Light-Duty Vehicles, Long Wheelbase <sup>b</sup>			Heavy-Duty Trucks <sup>c</sup>			All Motor Vehicles <sup>d</sup>		
	Mileage (miles per vehicle)	Fuel Consumption (gallons per vehicle)	Fuel Economy (miles per gallon)	Mileage (miles per vehicle)	Fuel Consumption (gallons per vehicle)	Fuel Economy (miles per gallon)	Mileage (miles per vehicle)	Fuel Consumption (gallons per vehicle)	Fuel Economy (miles per gallon)	Mileage (miles per vehicle)	Fuel Consumption (gallons per vehicle)	Fuel Economy (miles per gallon)
1973	9,884	737	13.4	9,779	931	10.5	15,370	2,775	5.5	10,099	850	11.9
1974	9,221	677	13.6	9,452	862	11.0	14,995	2,708	5.5	9,493	788	12.0
1975	9,309	665	14.0	9,829	934	10.5	15,167	2,722	5.6	9,627	790	12.2
1976	9,418	681	13.8	10,127	934	10.8	15,438	2,764	5.6	9,774	806	12.1
1977	9,517	676	14.1	10,607	947	11.2	16,700	3,002	5.6	9,978	814	12.3
1978	9,500	665	14.3	10,968	948	11.6	18,045	3,263	5.5	10,077	816	12.4
1979	9,062	620	14.6	10,802	905	11.9	18,502	3,380	5.5	9,722	776	12.5
1980	8,813	551	16.0	10,437	854	12.2	18,736	3,447	5.4	9,458	712	13.3
1981	8,873	538	16.5	10,244	819	12.5	19,016	3,565	5.3	9,477	697	13.6
1982	9,050	535	16.9	10,276	762	13.5	19,931	3,647	5.5	9,644	686	14.1
1983	9,118	534	17.1	10,497	767	13.7	21,083	3,769	5.6	9,760	686	14.2
1984	9,248	530	17.4	11,151	797	14.0	22,550	3,967	5.7	10,017	691	14.5
1985	9,419	538	17.5	10,506	735	14.3	20,597	3,570	5.8	10,020	685	14.6
1986	9,464	543	17.4	10,764	738	14.6	22,143	3,821	5.8	10,143	692	14.7
1987	9,720	539	18.0	11,114	744	14.9	23,349	3,937	5.9	10,453	694	15.1
1988	9,972	531	18.8	11,465	745	15.4	22,485	3,736	6.0	10,721	688	15.6
1989	10,157	533	19.0	11,676	724	16.1	22,926	3,776	6.1	10,932	688	15.9
1990	10,504	520	20.2	11,902	738	16.1	23,603	3,953	6.0	11,107	677	16.4
1991	10,571	501	21.1	12,245	721	17.0	24,229	4,047	6.0	11,294	669	16.9
1992	10,857	517	21.0	12,381	717	17.3	25,373	4,210	6.0	11,558	683	16.9
1993	10,804	527	20.5	12,430	714	17.4	26,262	4,309	6.1	11,595	693	16.7
1994	10,992	531	20.7	12,156	701	17.3	25,838	4,202	6.1	11,683	698	16.7
1995	11,203	530	21.1	12,018	694	17.3	26,514	4,315	6.1	11,793	700	16.8
1996	11,330	534	21.2	11,811	685	17.2	26,092	4,221	6.2	11,813	700	16.9
1997	11,581	539	21.5	12,115	703	17.2	27,032	4,218	6.4	12,107	711	17.0
1998	11,754	544	21.6	12,173	707	17.2	25,397	4,135	6.1	12,211	721	16.9
1999	11,848	553	21.4	11,957	701	17.0	26,014	4,352	6.0	12,206	732	16.7
2000	11,976	547	21.9	11,672	669	17.4	25,617	4,391	5.8	12,164	720	16.9
2001	11,831	534	22.1	11,204	636	17.6	26,602	4,477	5.9	11,887	695	17.1
2002	12,202	555	22.0	11,364	650	17.5	27,071	4,642	5.8	12,171	719	16.9
2003	12,325	556	22.2	11,287	697	16.2	28,093	4,215	6.7	12,208	718	17.0
2004	12,460	553	22.5	11,184	690	16.2	27,023	4,057	6.7	12,200	714	17.1
2005	12,510	567	22.1	10,920	617	17.7	26,235	4,385	6.0	12,082	706	17.1
2006	12,485	554	22.5	10,920	612	17.8	25,231	4,304	5.9	12,017	698	17.2
2007	<sup>a</sup> 10,710	<sup>a</sup> 468	<sup>a</sup> 22.9	<sup>b</sup> 14,970	<sup>b</sup> 877	<sup>b</sup> 17.1	<sup>c</sup> 28,290	<sup>c</sup> 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 <sup>P</sup>	10,649	453	23.5	15,463	898	17.2	26,609	4,174	6.4	11,853	678	17.5

<sup>a</sup> Through 2006, data are for passenger cars (and, through 1989, for motorcycles). Beginning in 2007, data are for passenger cars, light trucks, vans, and sport utility vehicles with a wheelbase equal to or less than 121 inches.

<sup>b</sup> Through 2006, data are for vans, pickup trucks, sport utility vehicles, and a small number of trucks with 2 axles and 4 tires, such as step vans. Beginning in 2007, data are for large passenger cars, vans, pickup trucks, and sport utility vehicles with a wheelbase larger than 121 inches.

<sup>c</sup> Through 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.

<sup>d</sup> Includes buses and motorcycles, which are not shown separately.

P=Preliminary.

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

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

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:** • **1973-1994**—Federal Highway Administration (FHWA), *Highway Statistics Summary to 1995*, Table VM-201A. • **1995 forward**—FHWA, *Highway Statistics*, annual reports, Table VM-1.

**Table 1.9 Heating Degree-Days by Census Division**

Census Divisions	January					Cumulative July through January				
	Normal <sup>a</sup>	2012	2013	Percent Change		Normal <sup>a</sup>	2012	2013	Percent Change	
				Normal to 2013	2012 to 2013				Normal to 2013	2012 to 2013
<b>New England</b> Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont .....	1,246	1,069	1,151	-8	8	3,708	3,045	3,364	-9	10
<b>Middle Atlantic</b> New Jersey, New York, Pennsylvania .....	1,158	993	1,042	-10	5	3,349	2,774	3,021	-10	9
<b>East North Central</b> Illinois, Indiana, Michigan, Ohio, Wisconsin .....	1,302	1,078	1,164	-11	8	3,774	3,203	3,491	-7	9
<b>West North Central</b> Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota .....	1,390	1,112	1,256	-10	13	4,085	3,467	3,787	-7	9
<b>South Atlantic</b> Delaware, Florida, Georgia, Maryland and the District of Columbia, North Carolina, South Carolina, Virginia, West Virginia .....	643	519	493	-23	-5	1,726	1,437	1,518	-12	6
<b>East South Central</b> Alabama, Kentucky, Mississippi, Tennessee .....	820	608	666	-19	10	2,230	1,882	2,004	-10	6
<b>West South Central</b> Arkansas, Louisiana, Oklahoma, Texas .....	593	408	488	-18	20	1,498	1,257	1,257	-16	0
<b>Mountain</b> Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming .....	951	810	1,023	8	26	3,098	2,805	2,832	-9	1
<b>Pacific<sup>b</sup></b> California, Oregon, Washington .....	564	486	607	8	25	1,817	1,708	1,704	-6	(s)
<b>U.S. Average<sup>b</sup></b> .....	<b>917</b>	<b>752</b>	<b>827</b>	<b>-10</b>	<b>10</b>	<b>2,656</b>	<b>2,269</b>	<b>2,412</b>	<b>-9</b>	<b>6</b>

<sup>a</sup> "Normal" is based on calculations of data from 1971 through 2000.

<sup>b</sup> Excludes Alaska and Hawaii.

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

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	January				
	Normal <sup>a</sup>	2012	2013	Percent Change	
				Normal to 2013	2012 to 2013
<b>New England</b> Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont .....	0	0	0	NM	NM
<b>Middle Atlantic</b> New Jersey, New York, Pennsylvania .....	0	0	0	NM	NM
<b>East North Central</b> Illinois, Indiana, Michigan, Ohio, Wisconsin .....	0	0	0	NM	NM
<b>West North Central</b> Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota .....	0	0	0	NM	NM
<b>South Atlantic</b> Delaware, Florida, Georgia, Maryland and the District of Columbia, North Carolina, South Carolina, Virginia, West Virginia .....	34	24	41	NM	NM
<b>East South Central</b> Alabama, Kentucky, Mississippi, Tennessee .....	8	0	4	NM	NM
<b>West South Central</b> Arkansas, Louisiana, Oklahoma, Texas .....	14	10	17	NM	NM
<b>Mountain</b> Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming .....	1	0	0	NM	NM
<b>Pacific<sup>b</sup></b> California, Oregon, Washington .....	2	0	0	NM	NM
<b>U.S. Average<sup>b</sup></b> .....	<b>9</b>	<b>6</b>	<b>10</b>	<b>NM</b>	<b>NM</b>

<sup>a</sup> "Normal" is based on calculations of data from 1971 through 2000.

<sup>b</sup> 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 prior to 1981, are on a free alongside ship (f.a.s.) basis.

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

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

### Table 1.5 Sources

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

#### Petroleum Exports

1974–1987: “U.S. Exports,” FT-410, December issues.  
1988 and 1989: “Report on U.S. Merchandise Trade,” Final Revisions.  
1990–1992: “U.S. Merchandise Trade,” Final Report.  
1993–2011: “U.S. International Trade in Goods and Services,” Annual Revision.

2012: “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.  
1994–2011: “U.S. International Trade in Goods and Services,” Annual Revision.  
2012: “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.  
1993–2011: “U.S. International Trade in Goods and Services,” Annual Revision.  
2012: “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

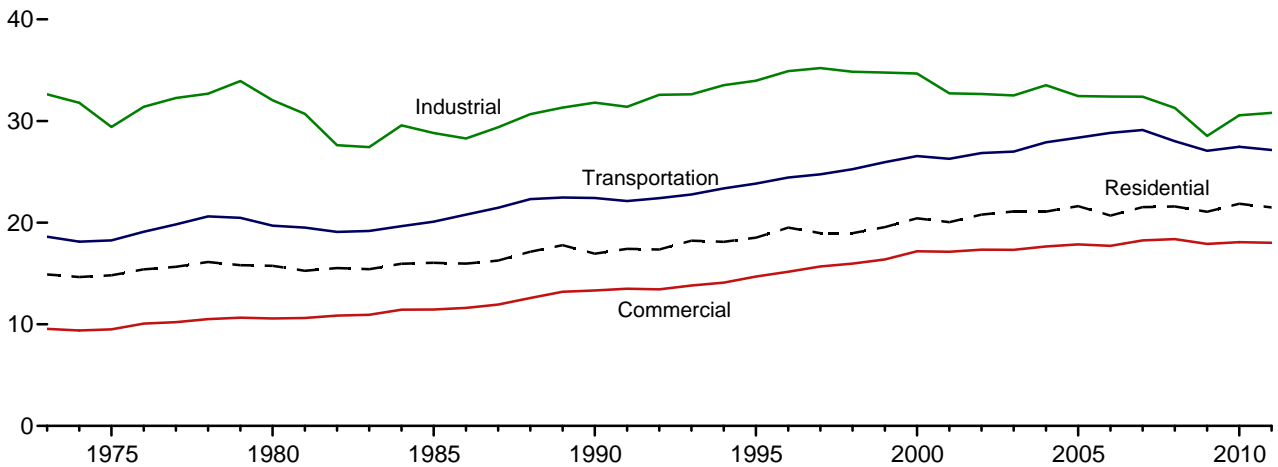
1974–1987: U.S. merchandise trade press releases and database printouts for adjustments.  
1988: “Report on U.S. Merchandise Trade, 1988 Final Revisions,” August 18, 1989.  
1989: “Report on U.S. Merchandise Trade, 1989 Revisions,” July 10, 1990.  
1990: “U.S. Merchandise Trade, 1990 Final Report,” May 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.  
1992–2011: “U.S. International Trade in Goods and Services,” Annual Revision.  
2012: “U.S. International Trade in Goods and Services,” FT-900, monthly.

## **2. Energy Consumption by Sector**

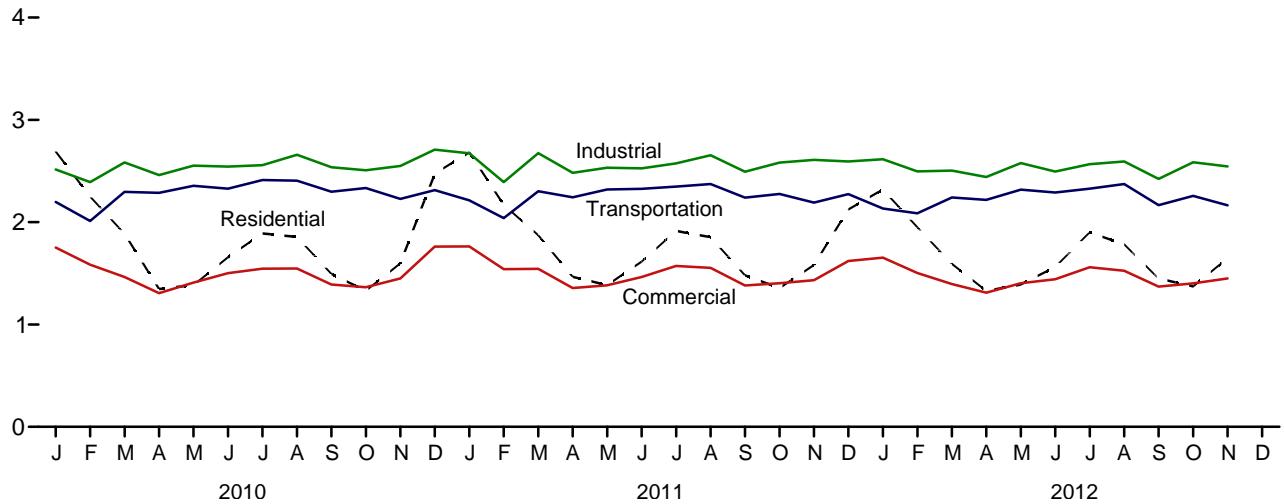
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**Figure 2.1 Energy Consumption by Sector**  
(Quadrillion Btu)

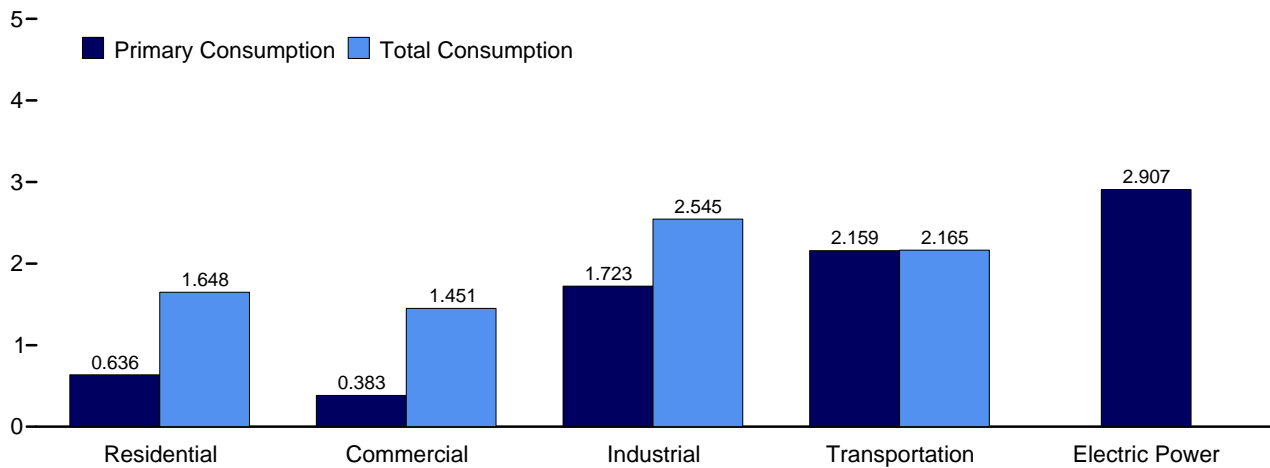
Total Consumption by End-Use Sector, 1973-2011



Total Consumption by End-Use Sector, Monthly



By Sector, November 2012



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 <sup>c,d</sup>	Balancing Item <sup>g</sup>	Primary Total <sup>h</sup>
	Residential		Commercial <sup>a</sup>		Industrial <sup>b</sup>		Transportation				
	Primary <sup>e</sup>	Total <sup>f</sup>	Primary <sup>e</sup>	Total <sup>f</sup>	Primary <sup>e</sup>	Total <sup>f</sup>	Primary <sup>e</sup>	Total <sup>f</sup>			
<b>1973 Total</b> .....	8,225	14,897	4,423	9,543	24,720	32,623	18,577	18,613	19,731	7	75,684
<b>1975 Total</b> .....	7,990	14,813	4,059	9,492	21,434	29,413	18,210	18,245	20,270	1	71,965
<b>1980 Total</b> .....	7,439	15,753	4,105	10,578	22,595	32,039	19,659	19,697	24,269	-1	78,067
<b>1985 Total</b> .....	7,148	16,041	3,732	11,451	19,443	28,816	20,041	20,088	26,032	-4	76,392
<b>1990 Total</b> .....	6,557	16,945	3,896	13,320	21,180	31,810	22,366	22,420	30,495	-9	84,485
<b>1995 Total</b> .....	6,936	18,519	4,101	14,690	22,719	33,971	23,791	23,846	33,479	3	91,029
<b>1996 Total</b> .....	7,467	19,504	4,273	15,172	23,410	34,904	24,383	24,437	34,485	4	94,022
<b>1997 Total</b> .....	7,033	18,965	4,295	15,681	23,686	35,200	24,695	24,750	34,886	6	94,602
<b>1998 Total</b> .....	6,413	18,955	4,005	15,968	23,177	34,843	25,201	25,256	36,225	-3	95,018
<b>1999 Total</b> .....	6,775	19,557	4,053	16,376	22,950	34,764	25,891	25,949	36,976	6	96,652
<b>2000 Total</b> .....	7,159	20,425	4,278	17,175	22,824	34,664	26,489	26,548	38,062	2	98,814
<b>2001 Total</b> .....	6,868	20,042	4,084	17,137	21,794	32,720	26,213	26,275	37,215	-6	96,168
<b>2002 Total</b> .....	6,912	20,791	4,132	17,345	21,799	32,662	26,781	26,842	38,016	5	97,645
<b>2003 Total</b> .....	7,211	21,097	4,283	17,331	21,502	32,522	26,920	26,994	38,028	-1	97,943
<b>2004 Total</b> .....	6,993	21,092	4,232	17,659	22,412	33,519	27,817	27,895	38,712	-6	100,160
<b>2005 Total</b> .....	6,909	21,626	4,051	17,857	21,411	32,446	28,272	28,353	39,638	(s)	100,282
<b>2006 Total</b> .....	6,168	20,688	3,747	17,711	21,536	32,401	28,751	28,830	39,428	(s)	99,629
<b>2007 Total</b> .....	6,598	21,531	3,922	18,255	21,370	32,394	29,029	29,117	40,377	-1	101,296
<b>2008 Total</b> .....	6,817	21,596	4,073	18,381	20,480	31,290	27,925	28,008	39,978	(s)	99,275
<b>2009 Total</b> .....	6,618	21,063	4,062	17,900	18,813	28,525	26,989	27,071	38,077	(s)	94,559
<b>2010 January</b> .....	1,141	2,690	617	1,752	1,723	2,516	2,190	2,198	3,484	4	9,160
February .....	984	2,249	548	1,585	1,627	2,391	2,005	2,012	3,073	1	8,238
March .....	736	1,886	419	1,465	1,778	2,584	2,290	2,297	3,008	-1	8,231
April .....	439	1,347	277	1,307	1,649	2,460	2,280	2,286	2,755	-2	7,397
May .....	328	1,385	226	1,410	1,638	2,553	2,349	2,356	3,163	-1	7,704
June .....	267	1,659	198	1,501	1,634	2,543	2,321	2,328	3,611	2	8,034
July .....	240	1,889	182	1,546	1,644	2,558	2,405	2,412	3,934	4	8,409
August .....	232	1,855	186	1,547	1,732	2,659	2,400	2,406	3,917	3	8,470
September .....	237	1,494	189	1,391	1,696	2,537	2,292	2,298	3,306	(s)	7,719
October .....	342	1,331	256	1,364	1,669	2,508	2,327	2,334	2,942	-1	7,535
November .....	599	1,597	364	1,451	1,698	2,550	2,222	2,228	2,944	-1	7,825
December .....	1,053	2,475	579	1,761	1,831	2,709	2,307	2,314	3,488	1	9,260
<b>Total</b> .....	<b>6,598</b>	<b>21,856</b>	<b>4,040</b>	<b>18,080</b>	<b>20,322</b>	<b>30,569</b>	<b>27,388</b>	<b>27,469</b>	<b>39,627</b>	<b>8</b>	<b>97,982</b>
<b>2011 January</b> .....	1,174	2,683	636	1,762	1,840	2,674	2,207	2,214	3,477	3	9,337
February .....	953	2,169	531	1,541	1,619	2,392	2,034	2,040	3,006	(s)	8,143
March .....	770	1,872	449	1,545	1,811	2,675	2,296	2,303	3,069	-2	8,393
April .....	481	1,466	299	1,356	1,637	2,483	2,236	2,243	2,895	-1	7,546
May .....	330	1,385	221	1,384	1,645	2,532	2,313	2,320	3,111	-1	7,620
June .....	264	1,614	198	1,464	1,627	2,526	2,319	2,326	3,523	2	7,934
July .....	241	1,915	188	1,573	1,632	2,575	2,341	2,348	4,008	6	8,417
August .....	252	1,853	205	1,553	1,728	2,655	2,366	2,373	3,883	5	8,439
September .....	264	1,480	212	1,381	1,651	2,493	2,234	2,240	3,234	(s)	7,594
October .....	383	1,356	286	1,404	1,716	2,583	2,270	2,276	R 2,963	-2	7,617
November .....	595	1,582	368	1,434	1,753	2,610	2,185	2,192	2,916	-2	7,816
December .....	886	2,125	504	1,621	1,742	2,594	2,267	2,274	3,215	-1	8,612
<b>Total</b> .....	<b>6,591</b>	<b>21,503</b>	<b>4,097</b>	<b>18,016</b>	<b>20,404</b>	<b>30,793</b>	<b>27,067</b>	<b>27,148</b>	<b>39,301</b>	<b>7</b>	<b>R 97,467</b>
<b>2012 January</b> .....	1,008	2,320	561	1,654	1,797	2,616	2,127	2,134	3,230	(s)	8,723
February .....	848	1,950	486	1,504	1,700	2,496	2,080	2,087	2,922	-2	8,035
March .....	574	1,593	348	1,395	1,673	2,504	2,235	2,242	2,903	-5	7,729
April .....	424	1,329	278	1,311	1,616	2,442	2,213	2,219	2,770	-5	7,296
May .....	309	1,391	219	1,404	1,671	2,578	2,312	2,319	3,181	-2	7,689
June .....	263	1,563	199	R 1,442	1,615	2,495	2,284	2,291	3,429	1	R 7,792
July .....	250	1,901	192	1,560	1,641	2,567	2,320	2,327	3,951	5	8,360
August .....	259	1,784	210	1,526	1,691	2,594	2,366	2,373	3,750	3	8,280
September .....	259	1,449	207	1,370	1,608	2,423	2,160	2,167	3,175	1	7,410
October .....	R 387	R 1,373	R 280	R 1,402	R 1,744	R 2,586	2,251	2,258	2,956	-2	R 7,616
November .....	636	1,648	383	1,451	1,723	2,545	2,159	2,165	2,907	2	7,811
<b>11-Month Total</b> .....	<b>5,219</b>	<b>18,302</b>	<b>3,363</b>	<b>16,019</b>	<b>18,480</b>	<b>27,845</b>	<b>24,510</b>	<b>24,581</b>	<b>35,176</b>	<b>-4</b>	<b>86,742</b>
<b>2011 11-Month Total</b> .....	<b>5,707</b>	<b>19,377</b>	<b>3,594</b>	<b>16,397</b>	<b>18,661</b>	<b>28,198</b>	<b>24,800</b>	<b>24,874</b>	<b>36,085</b>	<b>9</b>	<b>88,855</b>
<b>2010 11-Month Total</b> .....	<b>5,546</b>	<b>19,382</b>	<b>3,461</b>	<b>16,319</b>	<b>18,490</b>	<b>27,859</b>	<b>25,080</b>	<b>25,155</b>	<b>36,138</b>	<b>7</b>	<b>88,722</b>

<sup>a</sup> Commercial sector, including commercial combined-heat-and-power (CHP) and commercial electricity-only plants.

<sup>b</sup> Industrial sector, including industrial combined-heat-and-power (CHP) and industrial electricity-only plants.

<sup>c</sup> 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.

<sup>d</sup> Through 1988, data are for electric utilities only. Beginning in 1989, data are for electric utilities and independent power producers.

<sup>e</sup> See "Primary Energy Consumption" in Glossary.

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

<sup>g</sup> 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.

<sup>h</sup> Primary energy consumption total. See Table 1.3.

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

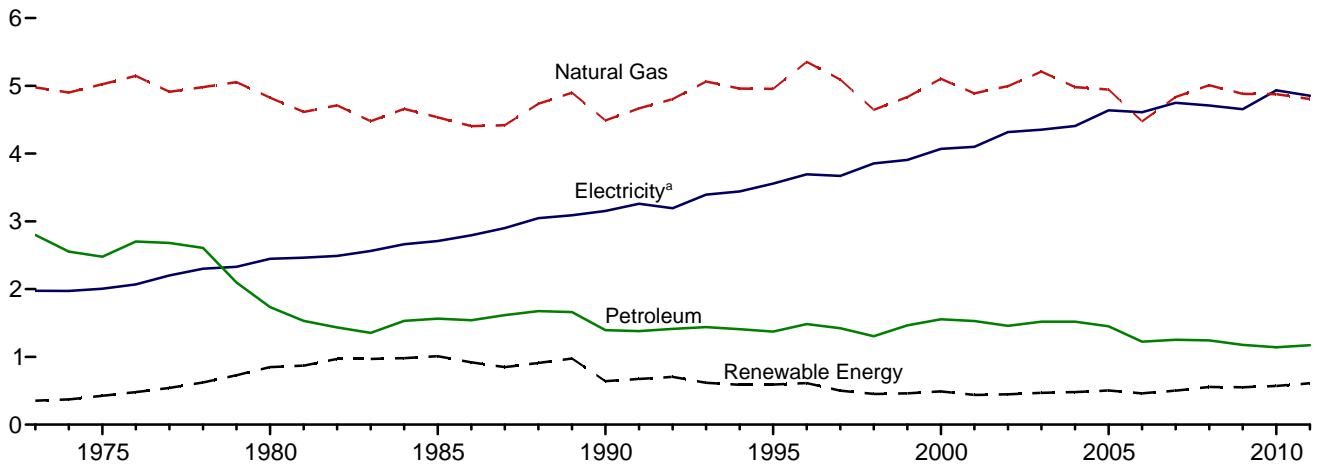
Notes: • See Note, "Classification of Power Plants Into Energy-Use Sectors," at end of Section 7. • See Note 1, "Energy Consumption Data and Surveys," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#consumption> for all available data beginning in 1973.

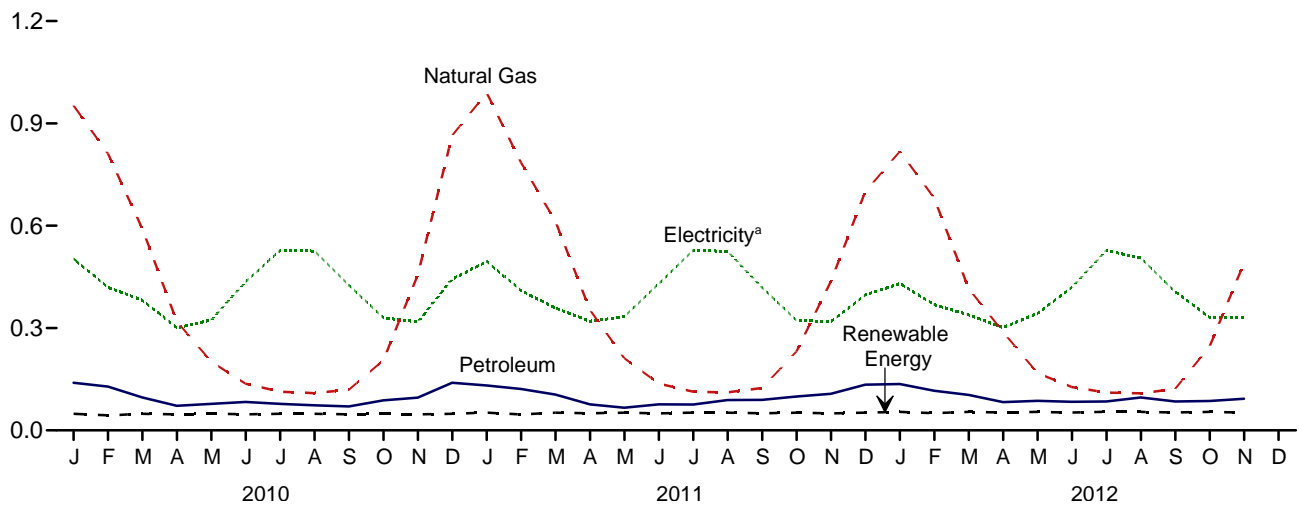
Sources: Tables 1.3 and 2.2-2.6.

**Figure 2.2 Residential Sector Energy Consumption**  
(Quadrillion Btu)

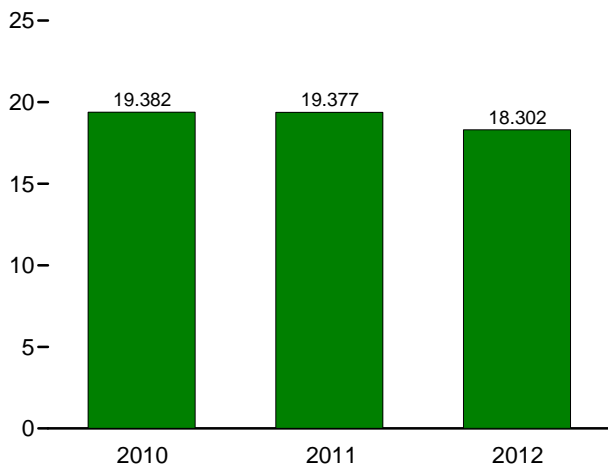
By Major Source, 1973-2011



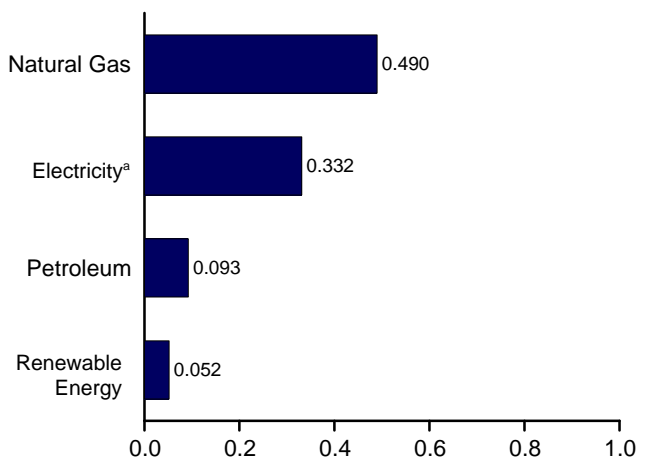
By Major Source, Monthly



Total, January-November



By Major Source, November 2012



<sup>a</sup> 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 <sup>a</sup>									Electricity Retail Sales <sup>d</sup>	Electrical System Energy Losses <sup>e</sup>	Total
	Fossil Fuels				Renewable Energy <sup>b</sup>				Total Primary			
	Coal	Natural Gas <sup>c</sup>	Petroleum	Total	Geo-thermal	Solar/PV	Bio-mass	Total				
<b>1973 Total</b> .....	94	4,977	2,800	7,871	NA	NA	354	354	8,225	1,976	4,696	14,897
<b>1975 Total</b> .....	63	5,023	2,479	7,564	NA	NA	425	425	7,990	2,007	4,817	14,813
<b>1980 Total</b> .....	31	4,825	1,734	6,589	NA	NA	850	850	7,439	2,448	5,866	15,753
<b>1985 Total</b> .....	39	4,534	1,565	6,138	NA	NA	1,010	1,010	7,148	2,709	6,184	16,041
<b>1990 Total</b> .....	31	4,491	1,394	5,916	6	56	580	641	6,557	3,153	7,235	16,945
<b>1995 Total</b> .....	17	4,954	1,374	6,345	7	64	520	591	6,936	3,557	8,026	18,519
<b>1996 Total</b> .....	17	5,354	1,484	6,854	7	65	540	612	7,467	3,694	8,344	19,504
<b>1997 Total</b> .....	16	5,093	1,422	6,531	8	64	430	502	7,033	3,671	8,261	18,965
<b>1998 Total</b> .....	12	4,646	1,304	5,962	8	64	380	452	6,413	3,856	8,686	18,955
<b>1999 Total</b> .....	14	4,835	1,465	6,314	9	63	390	461	6,775	3,906	8,875	19,557
<b>2000 Total</b> .....	11	5,105	1,554	6,670	9	61	420	489	7,159	4,069	9,197	20,425
<b>2001 Total</b> .....	12	4,889	1,529	6,430	9	59	370	438	6,868	4,100	9,074	20,042
<b>2002 Total</b> .....	12	4,995	1,457	6,464	10	57	380	448	6,912	4,317	9,562	20,791
<b>2003 Total</b> .....	12	5,209	1,519	6,741	13	57	400	470	7,211	4,353	9,534	21,097
<b>2004 Total</b> .....	11	4,981	1,520	6,513	14	57	410	481	6,993	4,408	9,690	21,092
<b>2005 Total</b> .....	8	4,946	1,451	6,406	16	58	430	504	6,909	4,638	10,079	21,626
<b>2006 Total</b> .....	6	4,476	1,224	5,706	18	63	380	462	6,168	4,611	9,909	20,688
<b>2007 Total</b> .....	8	4,835	1,254	6,097	22	70	410	502	6,598	4,750	10,182	21,531
<b>2008 Total</b> .....	8	5,010	1,243	6,261	26	80	450	557	6,817	4,708	10,071	21,596
<b>2009 Total</b> .....	7	4,883	1,176	6,067	33	89	430	552	6,618	4,656	9,789	21,063
<b>2010</b> January .....	1	952	140	1,093	3	10	36	48	1,141	503	1,045	2,690
February .....	1	811	128	940	3	9	32	44	984	419	846	2,249
March .....	1	591	96	688	3	10	36	48	736	381	768	1,886
April .....	(s)	319	72	392	3	9	35	47	439	300	608	1,347
May .....	(s)	201	78	279	3	10	36	48	328	324	734	1,385
June .....	(s)	137	83	221	3	9	35	47	267	435	956	1,659
July .....	(s)	113	78	191	3	10	36	48	240	528	1,121	1,889
August .....	(s)	109	74	183	3	10	36	48	232	526	1,098	1,855
September .....	(s)	120	70	190	3	9	35	47	237	425	832	1,494
October .....	1	205	88	294	3	10	36	48	342	330	658	1,331
November .....	1	456	96	552	3	9	35	47	599	318	680	1,597
December .....	1	865	140	1,005	3	10	36	48	1,053	444	978	2,475
<b>Total</b> .....	<b>7</b>	<b>4,878</b>	<b>1,142</b>	<b>6,027</b>	<b>37</b>	<b>114</b>	<b>420</b>	<b>571</b>	<b>6,598</b>	<b>4,933</b>	<b>10,326</b>	<b>21,856</b>
<b>2011</b> January .....	1	989	132	1,122	3	12	37	52	1,174	495	1,015	2,683
February .....	1	785	121	907	3	11	33	47	953	410	806	2,169
March .....	1	613	105	718	3	12	37	52	770	358	745	1,872
April .....	(s)	354	76	430	3	12	35	50	481	320	666	1,466
May .....	(s)	211	67	278	3	12	37	52	330	333	722	1,385
June .....	(s)	137	76	214	3	12	35	50	264	430	920	1,614
July .....	(s)	113	76	190	3	12	37	52	241	528	1,145	1,915
August .....	(s)	111	89	200	3	12	37	52	252	525	1,077	1,853
September .....	(s)	124	89	214	3	12	35	50	264	419	798	1,480
October .....	(s)	232	99	331	3	12	37	52	383	323	650	1,356
November .....	(s)	437	107	545	3	12	35	50	595	318	670	1,582
December .....	(s)	699	134	834	3	12	37	52	886	397	842	2,125
<b>Total</b> .....	<b>5</b>	<b>4,804</b>	<b>1,171</b>	<b>5,981</b>	<b>40</b>	<b>140</b>	<b>430</b>	<b>610</b>	<b>6,591</b>	<b>4,855</b>	<b>10,057</b>	<b>21,503</b>
<b>2012</b> January .....	(s)	818	136	954	3	14	36	54	1,008	431	881	2,320
February .....	(s)	681	116	797	3	13	34	51	848	368	734	1,950
March .....	(s)	416	104	520	3	14	36	54	574	338	680	1,593
April .....	(s)	289	83	372	3	14	35	52	424	301	603	1,329
May .....	(s)	168	87	255	3	14	36	54	309	343	739	1,391
June .....	(s)	127	84	211	3	14	35	52	263	420	880	1,563
July .....	(s)	111	85	196	3	14	36	54	250	528	1,123	1,901
August .....	(s)	109	96	205	3	14	36	54	259	505	1,020	1,784
September .....	(s)	122	85	206	3	14	35	52	259	407	784	1,449
October .....	(s)	<sup>R</sup> 246	86	<sup>R</sup> 333	3	14	36	54	<sup>R</sup> 387	330	656	<sup>R</sup> 1,373
November .....	1	490	93	584	3	14	35	52	636	332	680	1,648
<b>11-Month Total</b> ...	<b>4</b>	<b>3,576</b>	<b>1,054</b>	<b>4,634</b>	<b>36</b>	<b>155</b>	<b>394</b>	<b>585</b>	<b>5,219</b>	<b>4,302</b>	<b>8,781</b>	<b>18,302</b>
<b>2011 11-Month Total</b> ...	<b>5</b>	<b>4,106</b>	<b>1,037</b>	<b>5,149</b>	<b>36</b>	<b>129</b>	<b>393</b>	<b>558</b>	<b>5,707</b>	<b>4,458</b>	<b>9,213</b>	<b>19,377</b>
<b>2010 11-Month Total</b> ...	<b>6</b>	<b>4,015</b>	<b>1,002</b>	<b>5,023</b>	<b>34</b>	<b>104</b>	<b>384</b>	<b>522</b>	<b>5,546</b>	<b>4,489</b>	<b>9,347</b>	<b>19,382</b>

<sup>a</sup> See "Primary Energy Consumption" in Glossary.

<sup>b</sup> Data are estimates. See Table 10.2a for notes on series components.

<sup>c</sup> Natural gas only; excludes the estimated portion of supplemental gaseous fuels. See Note 3, "Supplemental Gaseous Fuels," at end of Section 4.

<sup>d</sup> Electricity retail sales to ultimate customers reported by electric utilities and, beginning in 1996, other energy service providers.

<sup>e</sup> Total losses are calculated as the primary energy consumed by the electric power sector minus the energy content of electricity retail sales. Total losses are allocated to the end-use sectors in proportion to each sector's share of total

electricity retail sales. See Note 2, "Electrical System Energy Losses," at end of section.

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

Notes: • See Note 1, "Energy Consumption Data and Surveys," at end of section. • Totals may not equal sum of components due to independent rounding.

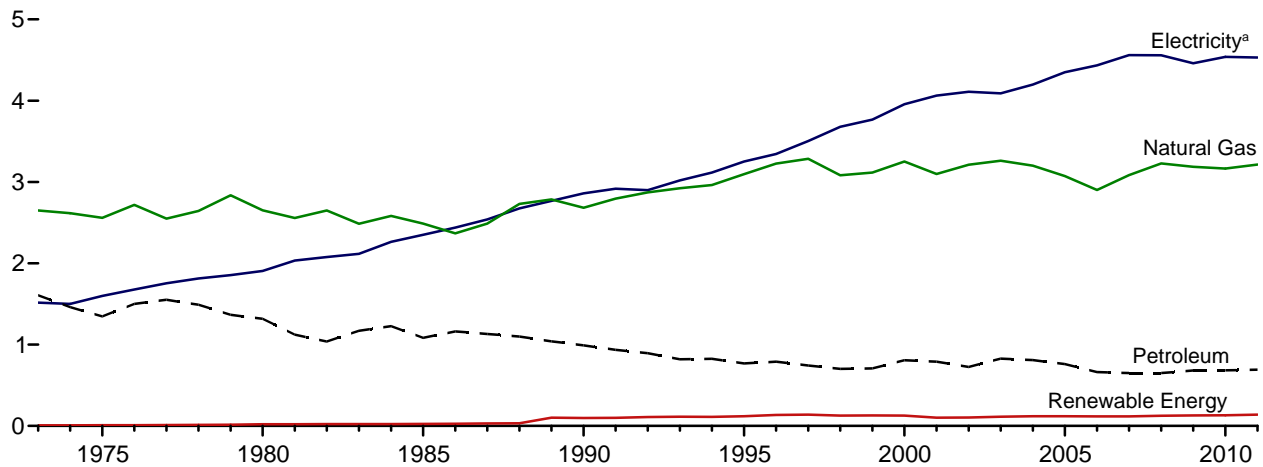
• Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#consumption> for all available data beginning in 1973.

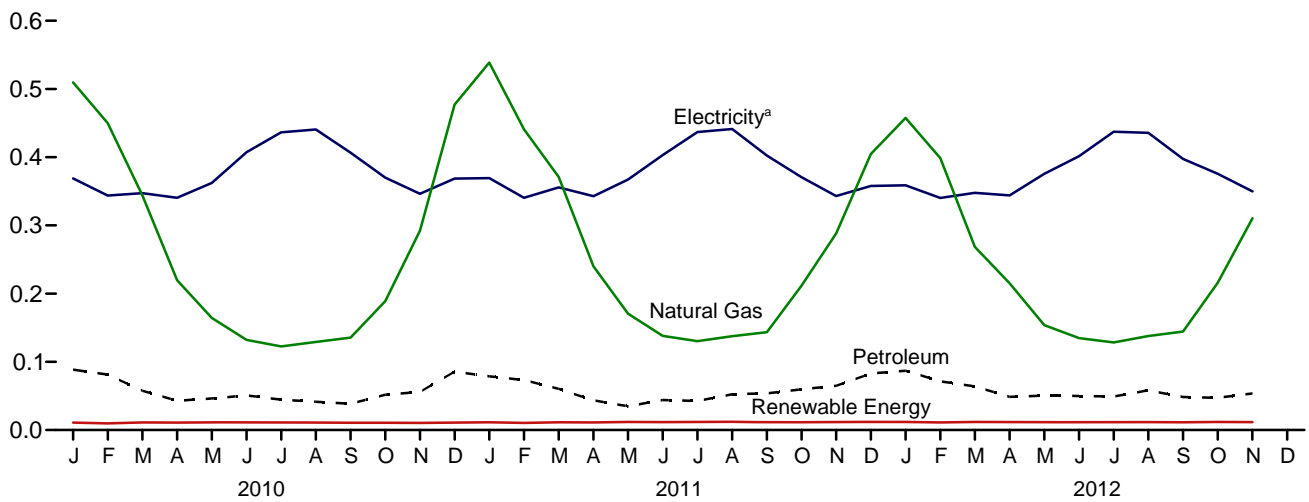
Sources: Tables 2.6, 3.8a, 4.3, 6.2, 7.6, 10.2a, A4, A5, and A6.

**Figure 2.3 Commercial Sector Energy Consumption**  
(Quadrillion Btu)

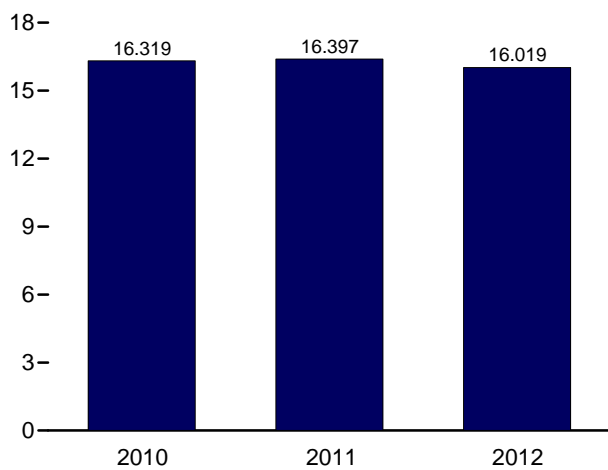
By Major Source, 1973-2011



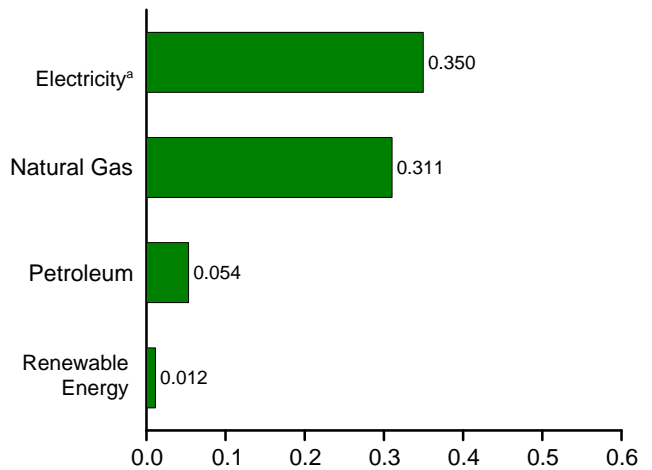
By Major Source, Monthly



Total, January-November



By Major Source, November 2012



<sup>a</sup> 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 <sup>a</sup>											Elec- tricity Retail Sales <sup>f</sup>	Electrical System Energy Losses <sup>g</sup>	Total
	Fossil Fuels				Renewable Energy <sup>b</sup>									
	Coal	Natural Gas <sup>c</sup>	Petro- leum <sup>d</sup>	Total	Hydro- electric Power <sup>e</sup>	Geo- thermal	Solar/ PV	Wind	Bio- mass	Total	Total Primary			
<b>1973 Total</b> .....	160	2,649	1,607	4,416	NA	NA	NA	NA	7	7	4,423	1,517	3,604	9,543
<b>1975 Total</b> .....	147	2,558	1,346	4,051	NA	NA	NA	NA	8	8	4,059	1,598	3,835	9,492
<b>1980 Total</b> .....	115	2,651	1,318	4,084	NA	NA	NA	NA	21	21	4,105	1,906	4,567	10,578
<b>1985 Total</b> .....	137	2,488	1,083	3,708	NA	NA	NA	NA	24	24	3,732	2,351	5,368	11,451
<b>1990 Total</b> .....	124	2,682	991	3,798	1	3	-	-	94	98	3,896	2,860	6,564	13,320
<b>1995 Total</b> .....	117	3,096	769	3,982	1	5	-	-	113	118	4,101	3,252	7,338	14,690
<b>1996 Total</b> .....	122	3,226	790	4,138	1	5	-	-	129	135	4,273	3,344	7,555	15,172
<b>1997 Total</b> .....	129	3,285	743	4,157	1	6	-	-	131	138	4,295	3,503	7,883	15,681
<b>1998 Total</b> .....	93	3,083	702	3,878	1	7	-	-	118	127	4,005	3,678	8,285	15,968
<b>1999 Total</b> .....	103	3,115	707	3,925	1	7	-	-	121	129	4,053	3,766	8,557	16,376
<b>2000 Total</b> .....	92	3,252	807	4,150	1	8	-	-	119	128	4,278	3,956	8,942	17,175
<b>2001 Total</b> .....	97	3,097	790	3,984	1	8	-	-	92	101	4,084	4,062	8,990	17,137
<b>2002 Total</b> .....	90	3,212	726	4,028	(s)	9	-	-	95	104	4,132	4,110	9,104	17,345
<b>2003 Total</b> .....	82	3,261	827	4,170	1	11	-	-	101	113	4,283	4,090	8,958	17,331
<b>2004 Total</b> .....	103	3,201	809	4,113	1	12	-	-	105	118	4,232	4,198	9,229	17,659
<b>2005 Total</b> .....	97	3,073	761	3,932	1	14	-	-	105	120	4,051	4,351	9,455	17,857
<b>2006 Total</b> .....	65	2,902	663	3,629	1	14	-	-	103	118	3,747	4,435	9,529	17,711
<b>2007 Total</b> .....	70	3,085	649	3,805	1	14	-	-	103	118	3,922	4,560	9,773	18,255
<b>2008 Total</b> .....	69	3,228	651	3,948	1	15	(s)	-	109	125	4,073	4,558	9,749	18,381
<b>2009 Total</b> .....	64	3,187	682	3,933	1	17	(s)	(s)	112	129	4,062	4,460	9,378	17,900
<b>2010 January</b> .....	8	510	89	606	(s)	2	(s)	(s)	9	11	617	369	766	1,752
February .....	7	450	81	538	(s)	1	(s)	(s)	8	10	548	344	694	1,585
March .....	6	344	58	408	(s)	2	(s)	(s)	9	11	419	347	699	1,465
April .....	4	220	43	266	(s)	2	(s)	(s)	9	11	277	340	689	1,307
May .....	4	164	46	214	(s)	2	(s)	(s)	10	12	226	362	822	1,410
June .....	4	132	51	187	(s)	2	(s)	(s)	9	11	198	407	896	1,501
July .....	4	123	44	171	(s)	2	(s)	(s)	9	11	182	436	927	1,546
August .....	4	129	41	175	(s)	2	(s)	(s)	10	11	186	441	920	1,547
September .....	4	136	39	178	(s)	2	(s)	(s)	9	11	189	406	795	1,391
October .....	5	189	52	245	(s)	2	(s)	(s)	9	11	256	370	738	1,364
November .....	5	292	56	353	(s)	2	(s)	(s)	9	10	364	346	741	1,451
December .....	6	477	85	569	(s)	2	(s)	(s)	9	11	579	369	813	1,761
<b>Total</b> .....	61	3,165	685	3,910	1	19	(s)	(s)	111	130	4,040	4,539	9,501	18,080
<b>2011 January</b> .....	7	539	79	625	(s)	2	(s)	(s)	10	11	636	369	757	1,762
February .....	6	441	73	521	(s)	2	(s)	(s)	9	10	531	340	670	1,541
March .....	6	371	60	438	(s)	2	(s)	(s)	10	11	449	356	740	1,545
April .....	4	240	43	287	(s)	2	(s)	(s)	9	11	299	343	714	1,356
May .....	4	171	35	210	(s)	2	(s)	(s)	10	12	221	367	795	1,384
June .....	4	138	44	186	(s)	2	(s)	(s)	10	12	198	403	863	1,464
July .....	4	130	42	176	(s)	2	(s)	(s)	10	12	188	437	948	1,573
August .....	3	138	52	193	(s)	2	(s)	(s)	10	12	205	441	906	1,553
September .....	3	143	54	200	(s)	2	(s)	(s)	10	11	212	402	767	1,381
October .....	4	212	60	275	(s)	2	(s)	(s)	10	12	286	371	747	1,404
November .....	4	288	65	357	(s)	2	(s)	(s)	10	12	368	343	722	1,434
December .....	4	405	83	492	(s)	2	(s)	(s)	10	12	504	358	759	1,621
<b>Total</b> .....	54	3,214	691	3,960	(s)	20	1	(s)	117	138	4,097	4,531	9,387	18,016
<b>2012 January</b> .....	5	458	87	549	(s)	2	(s)	(s)	10	12	561	359	734	1,654
February .....	4	399	71	474	(s)	2	(s)	(s)	10	11	486	340	678	1,504
March .....	4	268	64	336	(s)	2	(s)	(s)	10	12	348	348	699	1,395
April .....	3	215	49	267	(s)	2	(s)	(s)	10	11	278	344	689	1,311
May .....	3	154	51	207	(s)	2	(s)	(s)	10	12	219	376	810	1,404
June .....	3	135	50	187	(s)	2	(s)	(s)	9	11	199	401	842	1,442
July .....	3	128	49	180	(s)	2	(s)	(s)	10	12	192	437	931	1,560
August .....	3	138	58	199	(s)	2	(s)	(s)	10	12	210	436	880	1,526
September .....	2	144	48	195	(s)	2	(s)	(s)	10	11	207	397	766	1,370
October .....	R 5	R 216	47	R 268	(s)	2	(s)	(s)	10	12	R 280	376	747	R 1,402
November .....	8	311	54	372	(s)	2	(s)	(s)	10	12	383	350	718	1,451
<b>11-Month Total</b> ...	41	2,565	628	3,235	(s)	18	1	1	108	128	3,363	4,164	8,493	16,019
<b>2011 11-Month Total</b> ...	49	2,810	608	3,468	(s)	18	1	(s)	107	126	3,594	4,174	8,629	16,397
<b>2010 11-Month Total</b> ...	54	2,688	599	3,342	1	17	(s)	(s)	102	120	3,461	4,170	8,688	16,319

<sup>a</sup> See "Primary Energy Consumption" in Glossary.

<sup>b</sup> Most data are estimates. See Table 10.2a for notes on series components and estimation.

<sup>c</sup> Natural gas only; excludes the estimated portion of supplemental gaseous fuels. See Note 3, "Supplemental Gaseous Fuels," at end of Section 4.

<sup>d</sup> Does not include biofuels that have been blended with petroleum—biofuels are included in "Biomass."

<sup>e</sup> Conventional hydroelectric power.

<sup>f</sup> Electricity retail sales to ultimate customers reported by electric utilities and, beginning in 1996, other energy service providers.

<sup>g</sup> Total losses are calculated as the primary energy consumed by the electric power sector minus the energy content of electricity retail sales. Total losses are allocated to the end-use sectors in proportion to each sector's share of total

electricity retail sales. See Note 2, "Electrical System Energy Losses," at end of section.

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

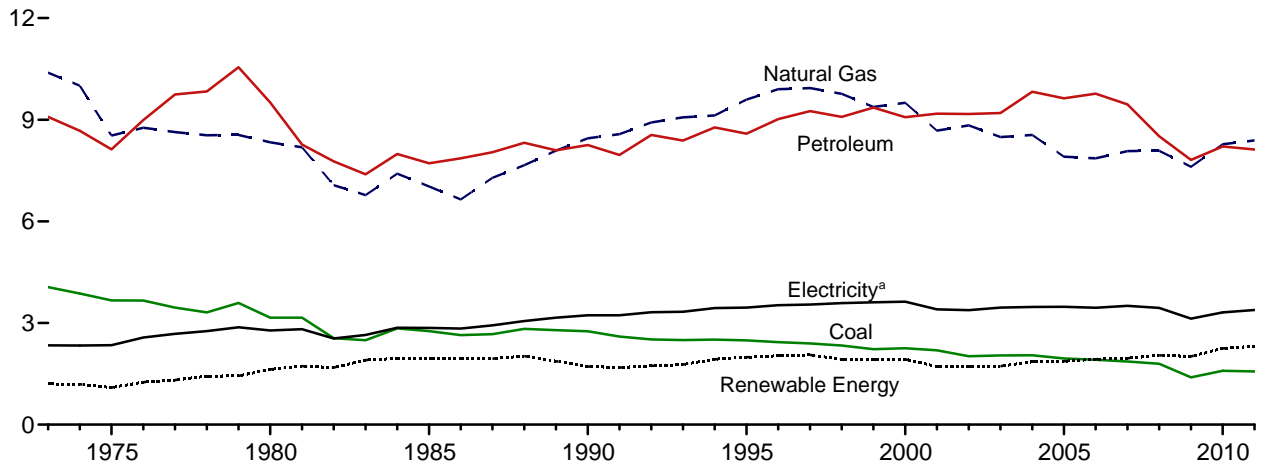
Notes: • The commercial sector includes commercial combined-heat-and-power (CHP) and commercial electricity-only plants. See Note, "Classification of Power Plants Into Energy-Use Sectors," at end of Section 7. • See Note 1, "Energy Consumption Data and Surveys," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#consumption> for all available data beginning in 1973.

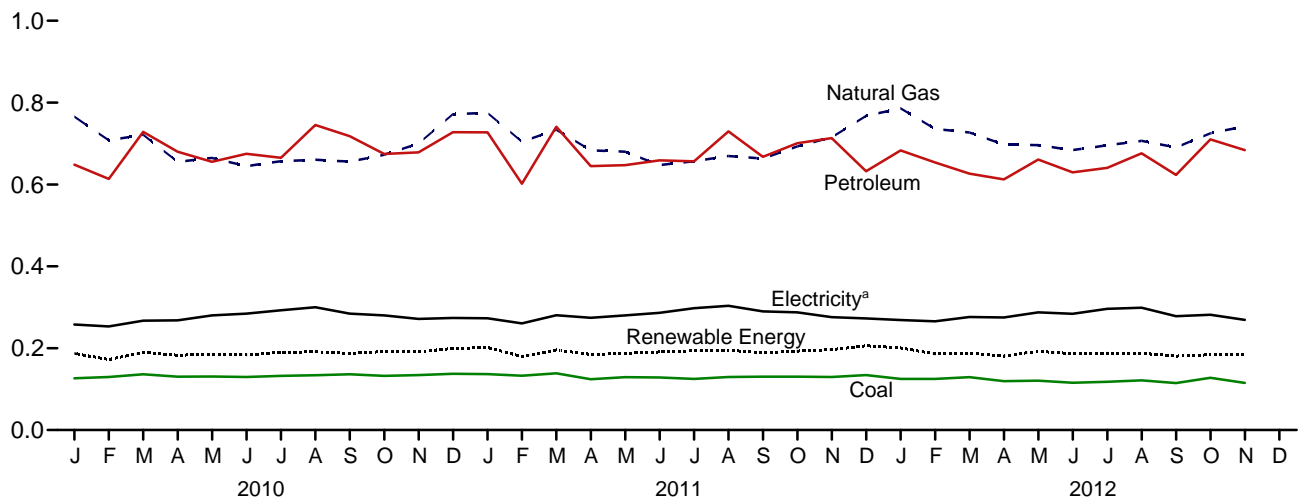
Sources: Tables 2.6, 3.8a, 4.3, 6.2, 7.6, 10.2a, A4, A5, and A6.

**Figure 2.4 Industrial Sector Energy Consumption**  
(Quadrillion Btu)

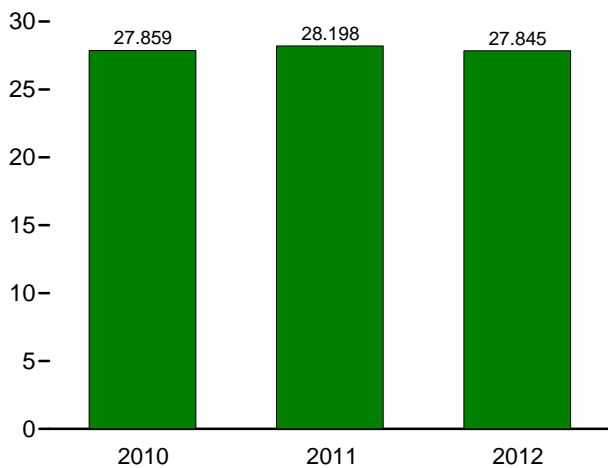
By Major Source, 1973-2011



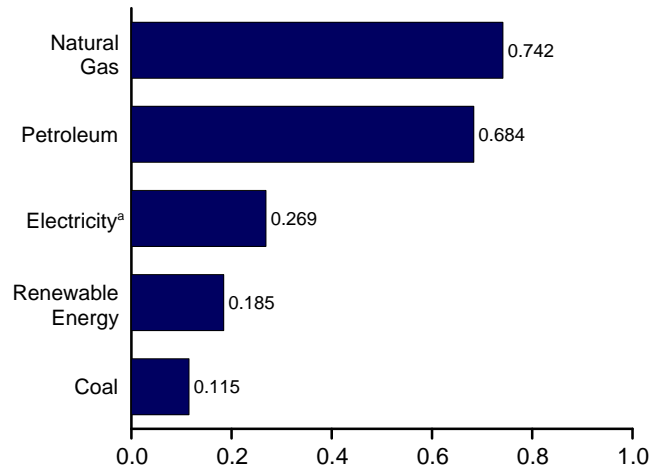
By Major Source, Monthly



Total, January-November



By Major Source, November 2012



<sup>a</sup> 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 <sup>a</sup>										Total Primary	Elec- tricity Retail Sales <sup>g</sup>	Electrical System Energy Losses <sup>h</sup>	Total <sup>e</sup>
	Fossil Fuels				Renewable Energy <sup>d</sup>									
	Coal	Natural Gas <sup>c</sup>	Petro- leum <sup>d</sup>	Total <sup>e</sup>	Hydro- electric Power <sup>f</sup>	Geo- thermal	Solar/ PV	Wind	Bio- mass	Total				
1973 Total	4,057	10,388	9,083	23,521	35	NA	NA	NA	1,165	1,200	24,720	2,341	5,562	32,623
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
1996 Total	2,434	9,901	9,019	21,377	61	3	—	—	1,969	2,033	23,410	3,527	7,968	34,904
1997 Total	2,395	9,933	9,255	21,629	58	3	—	—	1,996	2,057	23,686	3,542	7,972	35,200
1998 Total	2,335	9,763	9,082	21,248	55	3	—	—	1,872	1,929	23,177	3,587	8,079	34,843
1999 Total	2,227	9,375	9,356	21,016	49	4	—	—	1,882	1,934	22,950	3,611	8,203	34,764
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	9,197	19,777	43	3	—	—	1,679	1,725	21,502	3,454	7,565	32,522
2004 Total	2,047	8,550	9,825	20,559	33	4	—	—	1,817	1,853	22,412	3,473	7,634	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	7,415	32,401
2007 Total	1,865	8,074	9,451	19,414	16	5	—	—	1,936	1,956	21,370	3,507	7,517	32,394
2008 Total	1,796	8,083	8,511	18,431	17	5	—	—	2,028	2,049	20,480	3,444	7,365	31,290
2009 Total	1,396	7,609	7,816	16,797	18	4	—	—	1,994	2,016	18,813	3,130	6,582	28,525
2010 January	126	766	648	1,536	2	(s)	(s)	—	185	187	1,723	258	535	2,516
February	130	708	614	1,455	2	(s)	(s)	—	170	172	1,627	253	511	2,391
March	136	722	728	1,588	2	(s)	(s)	—	188	190	1,778	267	538	2,584
April	130	655	680	1,466	2	(s)	(s)	—	181	183	1,649	268	543	2,460
May	131	665	655	1,453	2	(s)	(s)	—	183	185	1,638	280	635	2,553
June	130	645	675	1,450	1	(s)	(s)	—	182	183	1,634	284	625	2,543
July	132	657	665	1,455	1	(s)	(s)	—	188	190	1,644	292	621	2,558
August	134	660	745	1,541	1	(s)	(s)	—	190	191	1,732	300	626	2,659
September	136	656	718	1,509	1	(s)	(s)	—	185	187	1,696	284	557	2,537
October	132	672	675	1,478	1	(s)	(s)	—	190	192	1,669	280	559	2,508
November	134	700	679	1,507	1	(s)	(s)	—	190	191	1,698	272	581	2,550
December	138	772	728	1,632	1	(s)	(s)	—	198	199	1,831	274	604	2,709
Total	1,590	8,278	8,210	18,072	16	4	(s)	(s)	2,230	2,250	20,322	3,313	6,934	30,569
2011 January	137	775	727	1,639	1	(s)	(s)	(s)	200	202	1,840	273	560	2,674
February	133	705	602	1,440	2	(s)	(s)	(s)	178	180	1,619	260	512	2,392
March	139	734	741	1,615	2	(s)	(s)	(s)	193	196	1,811	280	583	2,675
April	124	683	645	1,452	2	(s)	(s)	(s)	183	185	1,637	274	571	2,483
May	129	680	647	1,458	2	(s)	(s)	(s)	185	187	1,645	280	607	2,532
June	128	647	659	1,436	1	(s)	(s)	(s)	189	191	1,627	286	613	2,526
July	125	657	657	1,438	1	(s)	(s)	(s)	192	194	1,632	298	646	2,575
August	130	669	730	1,533	1	(s)	(s)	(s)	193	195	1,728	304	623	2,655
September	130	663	668	1,462	1	(s)	(s)	(s)	188	189	1,651	290	552	2,493
October	130	693	701	1,523	1	(s)	(s)	(s)	191	193	1,716	288	579	2,583
November	130	715	713	1,556	1	(s)	(s)	(s)	195	197	1,753	276	581	2,610
December	134	768	632	1,537	2	(s)	(s)	(s)	204	206	1,742	273	579	2,594
Total	1,569	8,389	8,121	18,090	17	4	(s)	(s)	2,291	2,313	20,404	3,382	7,007	30,793
2012 January	125	786	683	1,596	2	(s)	(s)	(s)	199	201	1,797	269	550	2,616
February	125	736	654	1,515	2	(s)	(s)	(s)	184	186	1,700	266	530	2,496
March	129	727	626	1,485	2	(s)	(s)	(s)	185	187	1,673	276	555	2,504
April	119	698	613	1,435	2	(s)	(s)	(s)	179	181	1,616	275	551	2,442
May	121	696	661	1,478	2	(s)	(s)	(s)	190	192	1,671	288	620	2,578
June	115	684	630	1,429	1	(s)	(s)	(s)	185	186	1,615	284	596	2,495
July	118	695	640	1,453	1	(s)	(s)	(s)	186	188	1,641	296	630	2,567
August	121	R 707	676	1,504	1	(s)	(s)	(s)	186	187	1,691	299	604	2,594
September	115	691	623	1,427	1	(s)	(s)	(s)	179	181	1,608	278	536	2,423
October	R 128	725	R 710	R 1,560	1	(s)	(s)	(s)	183	184	R 1,744	282	560	R 2,586
November	115	742	684	1,538	2	(s)	(s)	(s)	182	185	1,723	269	552	2,545
11-Month Total	1,331	7,886	7,200	16,422	16	4	(s)	(s)	2,038	2,058	18,480	3,082	6,284	27,845
2011 11-Month Total	1,435	7,621	7,489	16,553	16	4	(s)	(s)	2,087	2,107	18,661	3,110	6,428	28,198
2010 11-Month Total	1,452	7,505	7,482	16,439	15	4	(s)	(s)	2,032	2,051	18,490	3,039	6,331	27,859

<sup>a</sup> See "Primary Energy Consumption" in Glossary.

<sup>b</sup> Most data are estimates. See Table 10.2b for notes on series components and estimation.

<sup>c</sup> Natural gas only; excludes the estimated portion of supplemental gaseous fuels. See Note 3, "Supplemental Gaseous Fuels," at end of Section 4.

<sup>d</sup> Does not include biofuels that have been blended with petroleum—biofuels are included in "Biomass."

<sup>e</sup> Includes coal coke net imports, which are not separately displayed. See Tables 1.4a and 1.4b.

<sup>f</sup> Conventional hydroelectric power.

<sup>g</sup> Electricity retail sales to ultimate customers reported by electric utilities and, beginning in 1996, other energy service providers.

<sup>h</sup> Total losses are calculated as the primary energy consumed by the electric power sector minus the energy content of electricity retail sales. Total losses are

allocated to the end-use sectors in proportion to each sector's share of total electricity retail sales. See Note 2, "Electrical System Energy Losses," at end of section.

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

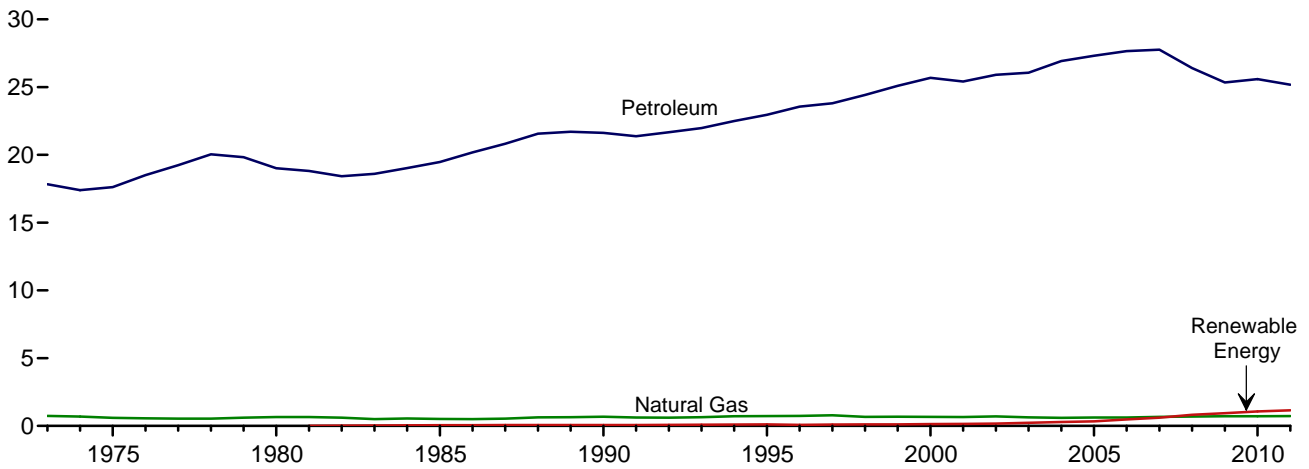
Notes: • The industrial sector includes industrial combined-heat-and-power (CHP) and industrial electricity-only plants. See Note, "Classification of Power Plants Into Energy-Use Sectors," at end of Section 7. • See Note 1, "Energy Consumption Data and Surveys," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#consumption> for all available data beginning in 1973.

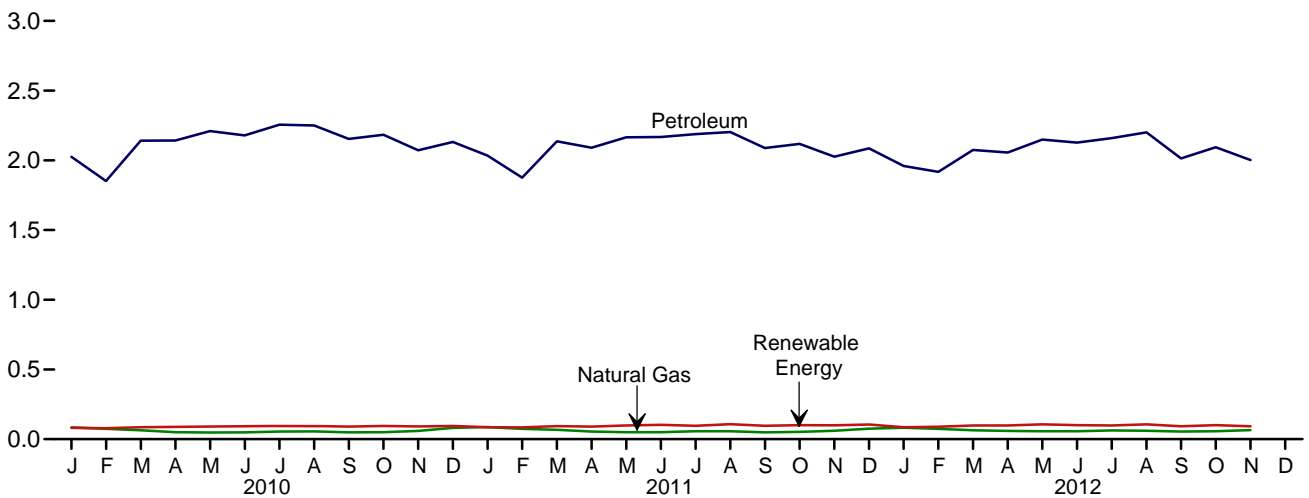
Sources: Tables 1.4a, 1.4b, 2.6, 3.8b, 4.3, 6.2, 7.6, 10.2b, A4, A5, and A6.

**Figure 2.5 Transportation Sector Energy Consumption**  
(Quadrillion Btu)

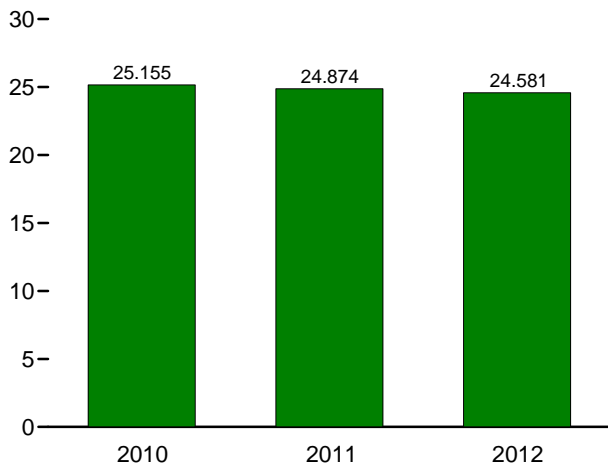
By Major Source, 1973-2011



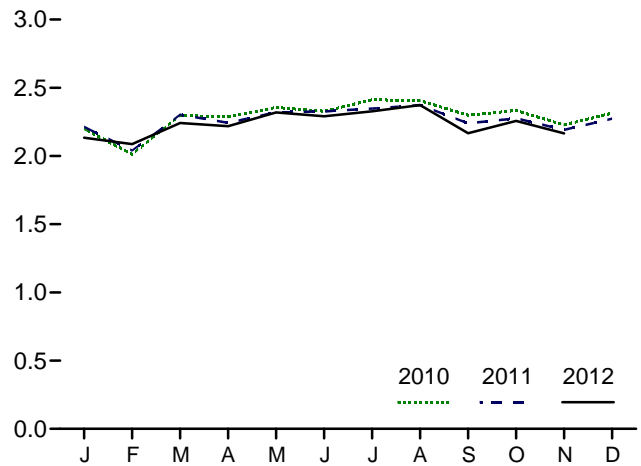
By Major Source, Monthly



Total, January-November



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 <sup>a</sup>						Electricity Retail Sales <sup>e</sup>	Electrical System Energy Losses <sup>f</sup>	Total
	Fossil Fuels				Renewable Energy <sup>b</sup>	Total Primary			
	Coal	Natural Gas <sup>c</sup>	Petroleum <sup>d</sup>	Total	Biomass				
<b>1973 Total</b> .....	3	743	17,832	18,577	NA	18,577	11	25	18,613
<b>1975 Total</b> .....	1	595	17,615	18,210	NA	18,210	10	24	18,245
<b>1980 Total</b> .....	(9)	650	19,009	19,659	NA	19,659	11	27	19,697
<b>1985 Total</b> .....	(9)	519	19,472	19,992	50	20,041	14	32	20,088
<b>1990 Total</b> .....	(9)	680	21,626	22,306	60	22,366	16	37	22,420
<b>1995 Total</b> .....	(9)	724	22,955	23,679	112	23,791	17	38	23,846
<b>1996 Total</b> .....	(9)	737	23,565	24,302	81	24,383	17	38	24,437
<b>1997 Total</b> .....	(9)	780	23,813	24,593	102	24,695	17	38	24,750
<b>1998 Total</b> .....	(9)	666	24,422	25,088	113	25,201	17	38	25,256
<b>1999 Total</b> .....	(9)	675	25,098	25,774	118	25,891	17	40	25,949
<b>2000 Total</b> .....	(9)	672	25,682	26,354	135	26,489	18	42	26,548
<b>2001 Total</b> .....	(9)	658	25,412	26,070	142	26,213	20	43	26,275
<b>2002 Total</b> .....	(9)	699	25,913	26,612	170	26,781	19	42	26,842
<b>2003 Total</b> .....	(9)	627	26,063	26,690	230	26,920	23	51	26,994
<b>2004 Total</b> .....	(9)	602	26,925	27,527	290	27,817	25	54	27,895
<b>2005 Total</b> .....	(9)	624	27,309	27,933	339	28,272	26	56	28,353
<b>2006 Total</b> .....	(9)	625	27,651	28,276	475	28,751	25	54	28,830
<b>2007 Total</b> .....	(9)	663	27,763	28,427	602	29,029	28	60	29,117
<b>2008 Total</b> .....	(9)	692	26,407	27,099	826	27,925	26	56	28,008
<b>2009 Total</b> .....	(9)	715	25,339	26,054	935	26,989	27	56	27,071
<b>2010</b>									
January .....	(9)	84	2,025	2,110	81	2,190	2	5	2,198
February .....	(9)	74	1,851	1,926	79	2,005	2	5	2,012
March .....	(9)	64	2,141	2,205	85	2,290	2	5	2,297
April .....	(9)	50	2,142	2,193	87	2,280	2	4	2,286
May .....	(9)	48	2,209	2,257	92	2,349	2	5	2,356
June .....	(9)	49	2,179	2,228	93	2,321	2	5	2,328
July .....	(9)	54	2,256	2,310	94	2,405	2	5	2,412
August .....	(9)	56	2,250	2,306	94	2,400	2	4	2,406
September .....	(9)	49	2,153	2,202	90	2,292	2	4	2,298
October .....	(9)	49	2,184	2,233	94	2,327	2	4	2,334
November .....	(9)	59	2,072	2,131	91	2,222	2	4	2,228
December .....	(9)	81	2,132	2,213	94	2,307	2	5	2,314
<b>Total</b> .....	(9)	<b>719</b>	<b>25,595</b>	<b>26,314</b>	<b>1,074</b>	<b>27,388</b>	<b>26</b>	<b>55</b>	<b>27,469</b>
<b>2011</b>									
January .....	(9)	87	2,034	2,121	86	2,207	2	5	2,214
February .....	(9)	74	1,876	1,950	84	2,034	2	4	2,040
March .....	(9)	67	2,136	2,203	93	2,296	2	5	2,303
April .....	(9)	55	2,091	2,146	90	2,236	2	4	2,243
May .....	(9)	50	2,165	2,215	98	2,313	2	5	2,320
June .....	(9)	50	2,167	2,217	102	2,319	2	5	2,326
July .....	(9)	56	2,188	2,245	96	2,341	2	5	2,348
August .....	(9)	56	2,203	2,259	107	2,366	2	4	2,373
September .....	(9)	49	2,088	2,137	96	2,234	2	4	2,240
October .....	(9)	52	2,118	2,170	100	2,270	2	4	2,276
November .....	(9)	60	2,026	2,086	99	2,185	2	4	2,192
December .....	(9)	76	2,086	2,162	105	2,267	2	5	2,274
<b>Total</b> .....	(9)	<b>732</b>	<b>25,179</b>	<b>25,910</b>	<b>1,157</b>	<b>27,067</b>	<b>26</b>	<b>54</b>	<b>27,148</b>
<b>2012</b>									
January .....	(9)	82	1,960	2,042	86	2,127	2	5	2,134
February .....	(9)	74	1,917	1,991	89	2,080	2	4	2,087
March .....	(9)	64	2,074	2,138	98	2,235	2	4	2,242
April .....	(9)	59	2,056	2,115	98	2,213	2	4	2,219
May .....	(9)	56	2,149	2,206	107	2,312	2	4	2,319
June .....	(9)	56	2,127	2,184	101	2,284	2	4	2,291
July .....	(9)	62	2,160	2,222	98	2,320	2	5	2,327
August .....	(9)	60	2,200	2,260	106	2,366	2	4	2,373
September .....	(9)	54	2,014	2,068	92	2,160	2	4	2,167
October .....	(9)	57	2,094	2,151	101	2,251	2	4	2,258
November .....	(9)	64	2,002	2,067	93	2,159	2	4	2,165
<b>11-Month Total</b> ...	(9)	<b>689</b>	<b>22,752</b>	<b>23,442</b>	<b>1,068</b>	<b>24,510</b>	<b>23</b>	<b>48</b>	<b>24,581</b>
<b>2011 11-Month Total</b> ...	(9)	<b>656</b>	<b>23,093</b>	<b>23,749</b>	<b>1,052</b>	<b>24,800</b>	<b>24</b>	<b>49</b>	<b>24,874</b>
<b>2010 11-Month Total</b> ...	(9)	<b>638</b>	<b>23,463</b>	<b>24,101</b>	<b>980</b>	<b>25,080</b>	<b>24</b>	<b>50</b>	<b>25,155</b>

<sup>a</sup> See "Primary Energy Consumption" in Glossary.

<sup>b</sup> Data are estimates. See Table 10.2b for notes on series components.

<sup>c</sup> Natural gas only; does not include supplemental gaseous fuels. See Note 3, "Supplemental Gaseous Fuels," at end of Section 4.

<sup>d</sup> Does not include biofuels that have been blended with petroleum—biofuels are included in "Biomass."

<sup>e</sup> Electricity retail sales to ultimate customers reported by electric utilities and, beginning in 1996, other energy service providers.

<sup>f</sup> Total losses are calculated as the primary energy consumed by the electric power sector minus the energy content of electricity retail sales. Total losses are allocated to the end-use sectors in proportion to each sector's share of total

electricity retail sales. See Note 2, "Electrical System Energy Losses," at end of section.

<sup>g</sup> Beginning in 1978, the small amounts of coal consumed for transportation are reported as industrial sector consumption.

NA=Not available.

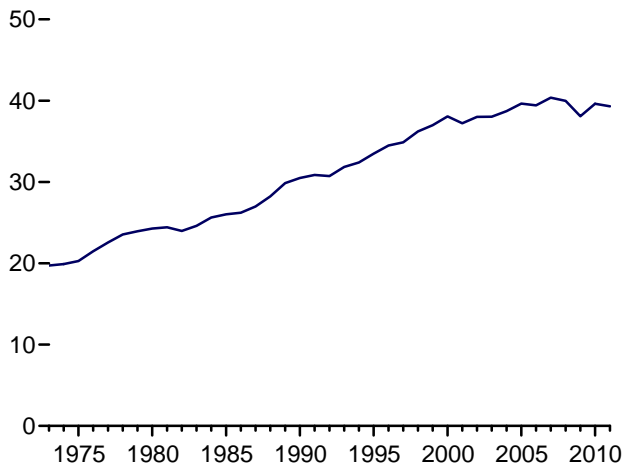
Notes: • See Note 1, "Energy Consumption Data and Surveys," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#consumption> for all available data beginning in 1973.

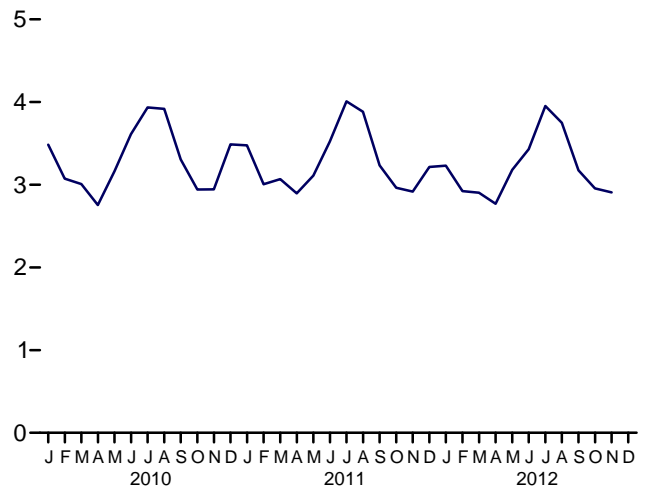
Sources: Tables 2.6, 3.8c, 4.3, 6.2, 7.6, 10.2b, A4, A5, and A6.

**Figure 2.6 Electric Power Sector Energy Consumption**  
(Quadrillion Btu)

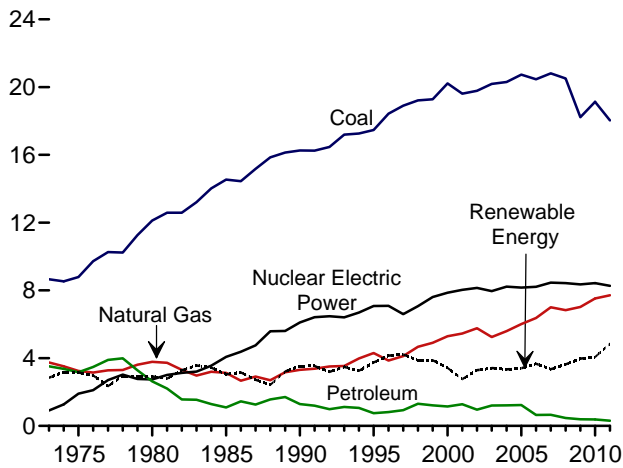
Total, 1973-2011



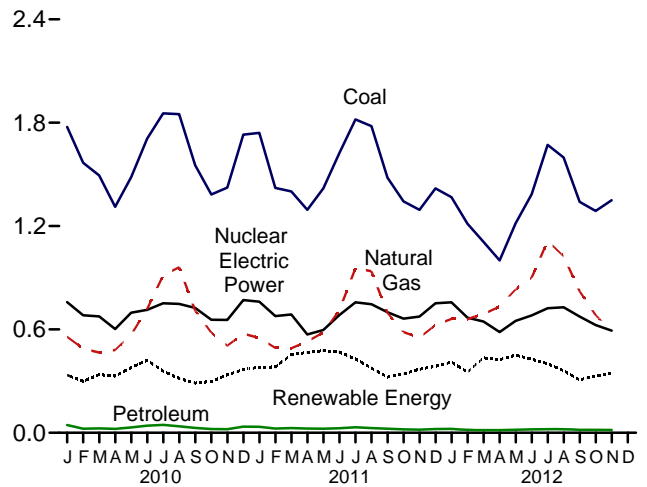
Total, Monthly



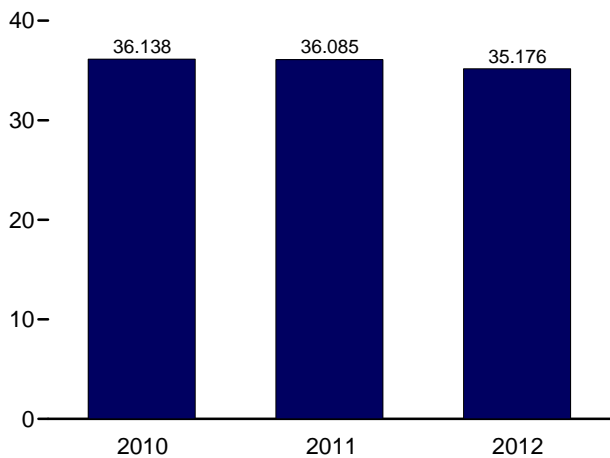
By Major Source, 1973-2011



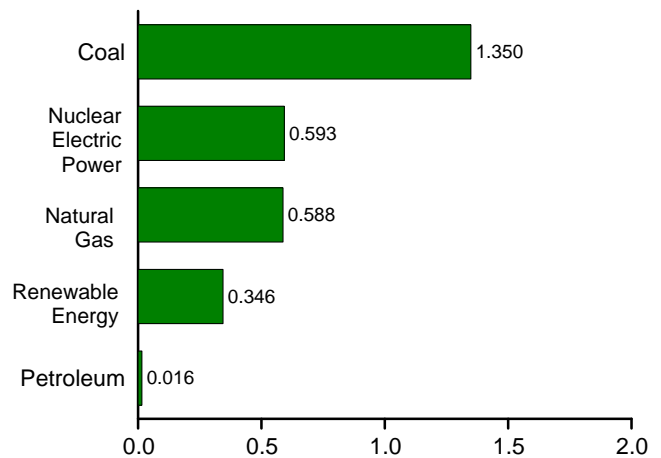
By Major Source, Monthly



Total, January-November



By Major Source, November 2012



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 <sup>a</sup>												Elec- tricity Net Imports	Total Primary
	Fossil Fuels				Nuclear Electric Power	Renewable Energy <sup>b</sup>								
	Coal	Natural Gas <sup>c</sup>	Petro- leum	Total		Hydro- electric Power <sup>d</sup>	Geo- thermal	Solar/ PV	Wind	Bio- mass	Total			
<b>1973 Total</b> .....	8,658	3,748	3,515	15,921	910	2,827	20	NA	NA	3	2,851	49	19,731	
<b>1975 Total</b> .....	8,786	3,240	3,166	15,191	1,900	3,122	34	NA	NA	2	3,158	21	20,270	
<b>1980 Total</b> .....	12,123	3,778	2,634	18,534	2,739	2,867	53	NA	NA	4	2,925	71	24,269	
<b>1985 Total</b> .....	14,542	3,135	1,090	18,767	4,076	2,937	97	(s)	(s)	14	3,049	140	26,032	
<b>1990 Total<sup>e</sup></b> .....	16,261	3,309	1,289	20,859	6,104	3,014	161	4	29	317	3,524	8	30,495	
<b>1995 Total</b> .....	17,466	4,302	755	22,523	7,075	3,149	138	5	33	422	3,747	134	33,479	
<b>1996 Total</b> .....	18,429	3,862	817	23,109	7,087	3,528	148	5	33	438	4,153	137	34,485	
<b>1997 Total</b> .....	18,905	4,126	927	23,957	6,597	3,581	150	5	34	446	4,216	116	34,886	
<b>1998 Total</b> .....	19,216	4,675	1,306	25,197	7,068	3,241	151	5	31	444	3,872	88	36,225	
<b>1999 Total</b> .....	19,279	4,902	1,211	25,393	7,610	3,218	152	5	46	453	3,874	99	36,976	
<b>2000 Total</b> .....	20,220	5,293	1,144	26,658	7,862	2,768	144	5	57	453	3,427	115	38,062	
<b>2001 Total</b> .....	19,614	5,458	1,277	26,348	8,029	2,209	142	6	70	337	2,763	75	37,215	
<b>2002 Total</b> .....	19,783	5,767	961	26,511	8,145	2,650	147	6	105	380	3,288	72	38,016	
<b>2003 Total</b> .....	20,185	5,246	1,205	26,636	7,959	2,749	146	5	113	397	3,411	22	38,028	
<b>2004 Total</b> .....	20,305	5,595	1,212	27,112	8,222	2,655	148	6	142	388	3,339	39	38,712	
<b>2005 Total</b> .....	20,737	6,015	1,235	27,986	8,161	2,670	147	6	178	406	3,406	85	39,638	
<b>2006 Total</b> .....	20,462	6,375	648	27,485	8,215	2,839	145	5	264	412	3,665	63	39,428	
<b>2007 Total</b> .....	20,808	7,005	657	28,470	8,455	2,430	145	6	341	423	3,345	107	40,377	
<b>2008 Total</b> .....	20,513	6,829	468	27,810	8,427	2,494	146	9	546	435	3,630	112	39,978	
<b>2009 Total</b> .....	18,225	7,022	390	25,638	8,356	2,650	146	9	721	441	3,967	116	38,077	
<b>2010 January</b> .....	1,775	557	45	2,377	758	217	13	(s)	67	39	335	14	3,484	
February .....	1,568	489	23	2,080	682	199	11	(s)	53	36	300	12	3,073	
March .....	1,494	466	25	1,984	676	202	13	1	84	39	338	10	3,008	
April .....	1,312	480	23	1,815	602	184	12	1	95	36	329	9	2,755	
May .....	1,483	570	31	2,084	697	243	13	1	85	36	378	5	3,163	
June .....	1,708	719	41	2,468	714	290	12	2	79	39	421	9	3,611	
July .....	1,855	914	46	2,815	752	238	12	2	66	40	358	10	3,934	
August .....	1,849	961	37	2,847	748	195	13	2	65	41	315	6	3,917	
September .....	1,554	709	28	2,291	725	168	12	1	69	38	288	2	3,306	
October .....	1,383	581	22	1,986	656	171	12	1	77	37	298	1	2,942	
November .....	1,423	506	21	1,950	655	190	12	1	95	39	337	3	2,944	
December .....	1,731	575	36	2,341	770	225	13	(s)	88	41	367	9	3,488	
<b>Total</b> .....	19,133	7,528	378	27,039	8,434	2,521	148	12	923	459	4,064	89	39,627	
<b>2011 January</b> .....	1,741	550	35	2,326	761	247	13	(s)	83	37	381	9	3,477	
February .....	1,421	493	24	1,938	678	233	12	1	102	35	382	8	3,006	
March .....	1,401	491	28	1,920	687	301	13	1	102	36	453	8	3,069	
April .....	1,294	531	24	1,849	571	301	12	2	121	32	467	7	2,895	
May .....	1,418	582	24	2,024	597	315	13	2	114	34	477	12	3,111	
June .....	1,623	712	26	2,361	683	311	12	2	107	37	469	11	3,523	
July .....	1,819	955	32	2,806	757	303	12	2	73	39	429	16	4,008	
August .....	1,780	938	27	2,745	746	249	12	2	73	39	376	16	3,883	
September .....	1,481	696	24	2,201	700	207	12	2	67	37	323	10	3,234	
October .....	1,343	585	20	1,949	663	191	12	1	102	36	343	10	3,296 <sup>R</sup>	
November .....	1,294	552	18	1,864	675	199	12	1	121	36	369	8	2,916	
December .....	1,419	625	22	2,066	752	229	13	1	103	39	385	12	3,215	
<b>Total</b> .....	18,035	7,712	303	26,050	8,269	3,085	149	17	1,167	437	4,855	127	39,301	
<b>2012 January</b> .....	1,368	660	23	2,051	757	225	14	1	134	37	410	11	3,230	
February .....	1,214	660	18	1,892	668	196	13	1	108	34	353	9	2,922	
March .....	1,108	689	15	1,812	646	249	14	2	135	35	435	10	2,903	
April .....	1,001	733	15	1,748	585	252	13	3	124	31	424	13	2,770	
May .....	1,216	832	17	2,065	650	276	14	5	122	35	451	15	3,181	
June .....	1,385	901	20	2,306	682	257	13	5	116	36	428	14	3,429	
July .....	1,672	1,113	23	2,808	723	259	14	5	85	38	401	19	3,951	
August .....	1,598	1,025	19	2,643	728	224	13	4	80	38	360	19	3,750	
September .....	1,341	821	17	2,179	675	170	13	4	84	36	307	14	3,175	
October .....	1,287	684	17	1,988	625	156	14	4	122	35	330	12	2,956	
November .....	1,350	588	16	1,955	593	181	14	3	112	36	346	13	2,907	
<b>11-Month Total</b> .....	14,540	8,707	201	23,448	7,333	2,445	149	38	1,223	391	4,245	150	35,176	
<b>2011 11-Month Total</b> .....	16,616	7,086	281	23,983	7,517	2,856	136	16	1,064	398	4,469	116	36,085	
<b>2010 11-Month Total</b> .....	17,403	6,951	343	24,697	7,664	2,297	136	11	835	419	3,697	80	36,138	

<sup>a</sup> See "Primary Energy Consumption" in Glossary.

<sup>b</sup> See Table 10.2c for notes on series components.

<sup>c</sup> Natural gas only; excludes the estimated portion of supplemental gaseous fuels. See Note 3, "Supplemental Gaseous Fuels," at end of Section 4.

<sup>d</sup> Conventional hydroelectric power.

<sup>e</sup> Through 1988, data are for electric utilities only. Beginning in 1989, data are for electric utilities and independent power producers.

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

Notes: • Data are for fuels consumed to produce electricity and useful thermal

output. • The electric power sector comprises electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public. • See Note 1, "Energy Consumption Data and Surveys," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#consumption> for all available data beginning in 1973.

Sources: Tables 3.8c, 4.3, 6.2, 7.1, 7.2b, 10.2c, A4, A5, and A6.

## Energy Consumption by Sector

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

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

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

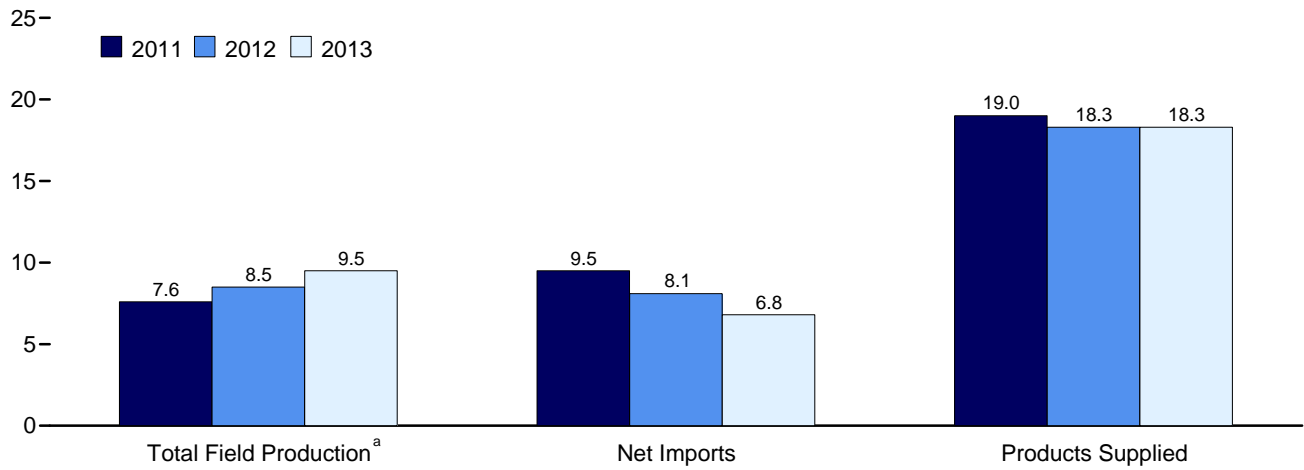
**Note 2. Electrical System Energy Losses.** Electrical system energy losses are calculated as the difference between total primary consumption by the electric power sector (see Table 2.6) and the total energy content of electricity retail sales (see Tables 7.6 and A6). Most of these losses occur at steam-electric power plants (conventional and nuclear) in the conversion of heat energy into mechanical energy to turn electric generators. The loss is a thermodynamically necessary feature of the steam-electric cycle. Part of the energy input-to-output losses is a result of inputting fossil energy equivalent inputs for hydroelectric and other energy sources, since there is no generally accepted practice for measuring those thermal conversion rates. In addition to conversion losses, other losses include power plant use of electricity, transmission and distribution of electricity from power plants to end-use consumers (also called "line losses"), and unaccounted for electricity. Total losses are allocated to the end-use sectors in proportion to each sector's share of total electricity sales. Overall, about two thirds of total energy input is lost in conversion. Currently, of electricity generated, approximately 5 percent is lost in plant use and 7 percent is lost in transmission and distribution.

## **3. Petroleum**

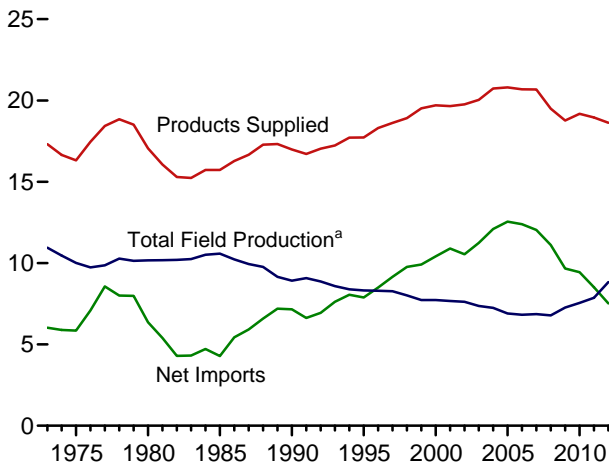
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**Figure 3.1 Petroleum Overview**  
(Million Barrels per Day)

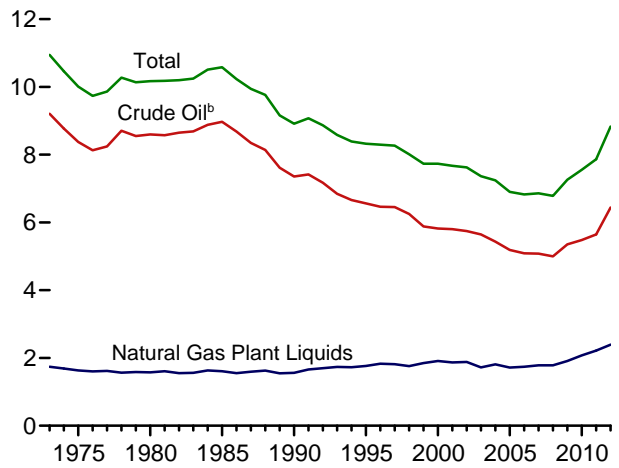
Overview, January



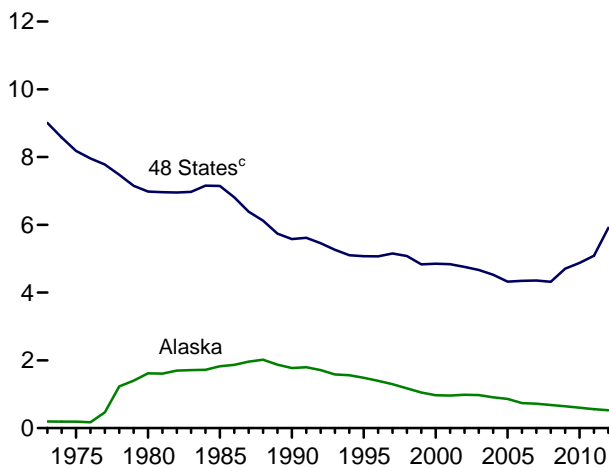
Overview, 1973-2012



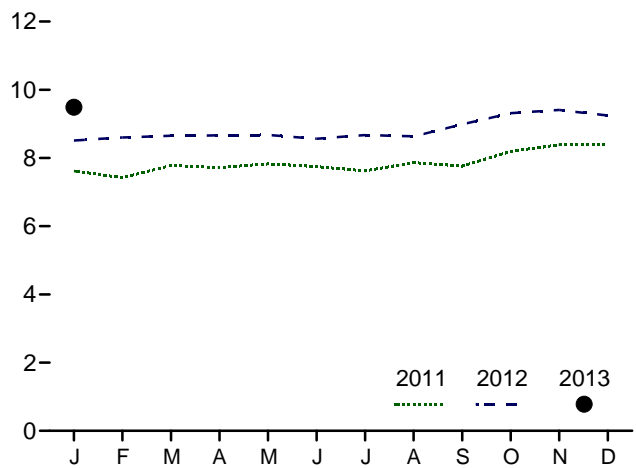
Total Field Production, 1973-2012



Crude Oil<sup>b</sup> Field Production, 1973-2012



Total Field Production,<sup>a</sup> Monthly



<sup>a</sup> Crude oil, including lease condensate, and natural gas plant liquids field production.

<sup>b</sup> Includes lease condensate.

<sup>c</sup> United States excluding Alaska and Hawaii.

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

Source: Table 3.1.

**Table 3.1 Petroleum Overview**  
(Thousand Barrels per Day)

	Field Production <sup>a</sup>					Renewable Fuels and Oxygenates <sup>g</sup>	Processing Gain <sup>h</sup>	Trade			Stock Change <sup>k</sup>	Adjustments <sup>c,l</sup>	Petroleum Products Supplied
	Crude Oil <sup>b,c</sup>			NGPL <sup>e,f</sup>	Total <sup>c</sup>			Im-ports <sup>i</sup>	Ex-ports <sup>i</sup>	Net Imports <sup>i</sup>			
	48 States <sup>d</sup>	Alaska	Total										
1973 Average	9,010	198	9,208	1,738	10,946	NA	453	6,256	231	6,025	135	18	17,308
1975 Average	8,183	191	8,375	1,633	10,007	NA	460	6,056	209	5,846	32	41	16,322
1980 Average	6,980	1,617	8,597	1,573	10,170	NA	597	6,909	544	6,365	140	64	17,056
1985 Average	7,146	1,825	8,971	1,609	10,581	NA	557	5,067	781	4,286	-103	200	15,726
1990 Average	5,582	1,773	7,355	1,559	8,914	NA	683	8,018	857	7,161	107	338	16,988
1995 Average	5,076	1,484	6,560	1,762	8,322	NA	774	8,835	949	7,886	-246	496	17,725
1996 Average	5,071	1,393	6,465	1,830	8,295	NA	837	9,478	981	8,498	-151	528	18,309
1997 Average	5,156	1,296	6,452	1,817	8,269	NA	850	10,162	1,003	9,158	143	487	18,620
1998 Average	5,077	1,175	6,252	1,759	8,011	NA	886	10,708	945	9,764	239	495	18,917
1999 Average	4,832	1,050	5,881	1,850	7,731	NA	886	10,852	940	9,912	-422	567	19,519
2000 Average	4,851	970	5,822	1,911	7,733	NA	948	11,459	1,040	10,419	-69	532	19,701
2001 Average	4,839	963	5,801	1,868	7,670	NA	903	11,871	971	10,900	325	501	19,649
2002 Average	4,759	985	5,744	1,880	7,624	NA	957	11,530	984	10,546	-105	529	19,761
2003 Average	4,670	974	5,644	1,719	7,363	NA	974	12,264	1,027	11,238	56	514	20,034
2004 Average	4,527	908	5,435	1,809	7,244	NA	1,051	13,145	1,048	12,097	209	548	20,731
2005 Average	4,322	864	5,186	1,717	6,903	NA	989	13,714	1,165	12,549	145	506	20,802
2006 Average	4,348	741	5,089	1,739	6,827	NA	994	13,707	1,317	12,390	60	536	20,687
2007 Average	4,355	722	5,077	1,783	6,860	NA	996	13,468	1,433	12,036	-148	641	20,680
2008 Average	4,318	683	5,000	1,784	6,784	NA	993	12,915	1,802	11,114	195	802	19,498
2009 Average	4,708	645	5,353	1,910	7,263	746	979	11,691	2,024	9,667	109	226	18,771
2010 January	4,758	640	5,399	2,017	7,416	846	961	11,300	1,897	9,404	309	334	18,652
February	4,911	635	5,546	2,043	7,589	874	1,060	11,230	2,034	9,197	-46	85	18,850
March	4,867	646	5,513	2,076	7,589	895	1,064	11,621	2,149	9,472	77	156	19,099
April	4,738	640	5,377	2,061	7,438	878	1,028	12,526	2,432	10,093	762	368	19,044
May	4,827	571	5,398	2,091	7,489	893	1,069	12,141	2,399	9,742	661	334	18,866
June	4,849	534	5,384	2,046	7,430	905	1,085	12,444	2,304	10,140	373	350	19,537
July	4,769	545	5,313	1,994	7,307	906	1,109	12,675	2,516	10,159	440	279	19,319
August	4,906	538	5,445	2,071	7,515	911	1,123	12,356	2,410	9,946	214	380	19,662
September	4,994	614	5,608	2,104	7,712	915	1,062	11,823	2,345	9,478	-23	249	19,438
October	4,978	618	5,596	2,125	7,721	924	1,012	11,142	2,480	8,662	-451	203	18,974
November	4,952	606	5,558	2,136	7,694	967	1,051	11,096	2,598	8,498	-667	100	18,977
December	4,982	632	5,614	2,124	7,739	961	1,187	11,132	2,644	8,488	-1,068	279	19,722
Average	4,877	601	5,479	2,074	7,553	907	1,068	11,793	2,353	9,441	49	261	19,180
2011 January	R 5,038	464	R 5,501	2,114	R 7,616	982	1,019	12,248	2,750	9,497	484	R 363	18,993
February	R 4,802	611	R 5,413	2,009	R 7,422	972	954	10,738	2,634	8,104	-1,033	R 389	18,873
March	R 4,975	611	R 5,586	2,195	R 7,781	1,002	1,019	11,850	2,733	9,117	-139	R 271	19,329
April	R 4,929	606	R 5,535	2,186	R 7,722	996	1,013	11,808	3,071	8,736	105	R 289	18,650
May	R 5,013	582	R 5,595	2,234	R 7,829	992	1,085	11,866	2,735	9,131	884	R 326	18,479
June	R 5,008	553	R 5,561	2,188	R 7,749	1,015	1,106	11,877	2,716	9,161	59	R 281	19,253
July	R 4,962	453	R 5,415	2,206	R 7,621	1,004	1,122	11,757	3,053	8,704	231	R 557	18,778
August	R 5,112	526	R 5,638	2,227	R 7,866	1,027	1,133	11,227	3,002	8,224	-644	R 520	19,415
September	R 5,007	585	R 5,592	2,171	R 7,762	1,011	1,123	11,270	3,174	8,095	-492	R 408	18,892
October	R 5,316	566	R 5,882	2,313	R 8,195	1,023	1,084	11,053	3,107	7,946	-371	R 226	18,844
November	R 5,421	593	R 6,014	2,373	R 8,387	1,076	1,113	11,217	3,159	8,059	23	R 468	19,080
December	R 5,430	592	R 6,022	2,358	R 8,380	1,085	1,134	11,064	3,667	7,397	-646	R 160	18,803
Average	R 5,087	561	R 5,648	2,216	R 7,864	1,016	1,076	11,504	2,986	8,518	-121	R 354	18,949
2012 January	RE 5,543	E 593	RE 6,135	2,376	RE 8,511	1,021	1,053	10,944	2,839	8,104	655	R 245	18,280
February	RE 5,633	E 582	RE 6,215	2,388	RE 8,603	1,012	1,068	10,464	2,980	7,484	-228	R 365	18,760
March	RE 5,711	E 567	RE 6,278	2,375	RE 8,653	994	1,023	10,610	3,064	7,547	409	R 404	18,213
April	RE 5,727	E 553	RE 6,280	2,382	RE 8,662	1,001	1,047	10,634	3,263	7,370	-18	R 231	18,330
May	RE 5,755	E 546	RE 6,301	2,376	RE 8,677	1,018	1,089	11,132	3,194	7,939	524	R 509	18,707
June	RE 5,735	E 493	RE 6,228	2,335	RE 8,563	1,004	1,099	11,393	3,209	8,184	493	R 559	18,915
July	RE 5,936	E 415	RE 6,351	2,323	RE 8,674	929	1,060	10,748	3,211	7,537	33	R 434	18,601
August	RE 5,862	E 404	RE 6,267	2,367	RE 8,634	957	1,102	10,898	3,017	7,881	-272	R 381	19,226
September	RE 6,026	E 502	RE 6,528	2,458	RE 8,986	924	1,047	10,533	3,150	7,383	582	R 414	18,173
October	RE 6,284	E 547	RE 6,831	2,485	RE 9,316	913	998	10,088	3,255	6,833	-278	R 384	18,722
November	RE 6,339	E 553	RE 6,893	R 2,516	RE 9,408	R 928	R 1,118	R 10,103	R 3,404	R 6,698	R -40	R 410	R 18,604
December	RE 6,380	E 554	RE 6,934	E 2,308	RE 9,242	E 921	E 1,112	E 10,235	E 2,920	E 7,315	E 76	E 451	E 18,965
Average	RE 5,912	E 526	RE 6,437	RE 2,390	RE 8,828	RE 968	RE 1,068	RE 10,649	RE 3,125	RE 7,524	RE 162	RE 399	RE 18,625
2013 January	E 6,458	E 547	E 7,005	E 2,482	E 9,487	E 855	E 1,048	E 9,869	E 3,044	E 6,825	E 271	E 333	E 18,277

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

<sup>b</sup> Includes lease condensate.

<sup>c</sup> Data for crude oil production, total field production, and adjustments are revised monthly going back as far as the data year of the U.S. Energy Information Administration's (EIA) last published *Petroleum Supply Annual (PSA)*—these revisions are released at the same time as EIA's *Petroleum Supply Monthly*. Once a year, data for these series are revised going back as far as 10 years—these revisions are released at the same time as the PSA.

<sup>d</sup> United States excluding Alaska and Hawaii.

<sup>e</sup> Natural gas plant liquids.

<sup>f</sup> See Note 6, "Petroleum Data Discrepancies," at end of section.

<sup>g</sup> Renewable fuels and oxygenate plant net production.

<sup>h</sup> Refinery and blender net production minus refinery and blender net inputs. See Table 3.2.

<sup>i</sup> Includes Strategic Petroleum Reserve imports. See Table 3.3b.

<sup>j</sup> Net imports equal imports minus exports.

<sup>k</sup> A negative value indicates a decrease in stocks and a positive value indicates an increase. The current month stock change estimate is based on the change from the previous month's estimate, rather than the stocks values shown in Table 3.4. Includes crude oil stocks in the Strategic Petroleum Reserve, but excludes distillate fuel oil stocks in the Northeast Heating Oil Reserve. See Table 3.4. Also see Note 4, "Petroleum New Stock Basis," at end of section.

<sup>l</sup> An adjustment for crude oil, hydrogen, oxygenates, renewable fuels, other hydrocarbons, motor gasoline blending components, finished motor gasoline, and distillate fuel oil. See EIA, *Petroleum Supply Monthly*, Appendix B, "PSM Explanatory Notes," for further information.

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

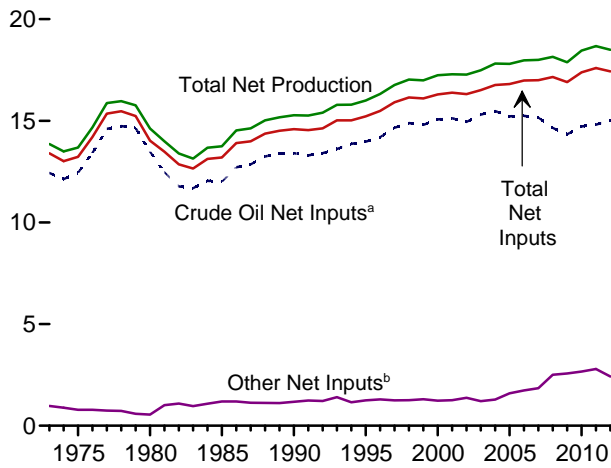
Notes: • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Pages: • For all available data beginning in 1973, see <http://www.eia.gov/totalenergy/data/monthly/#petroleum>. • For related information, see <http://www.eia.gov/petroleum/>.

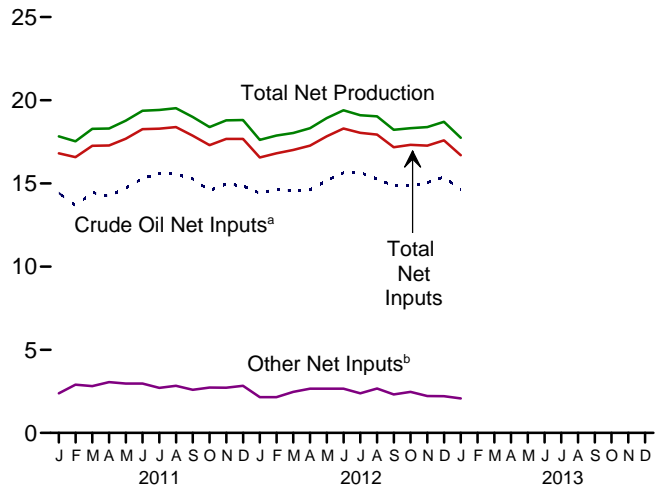
Sources: See end of section.

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

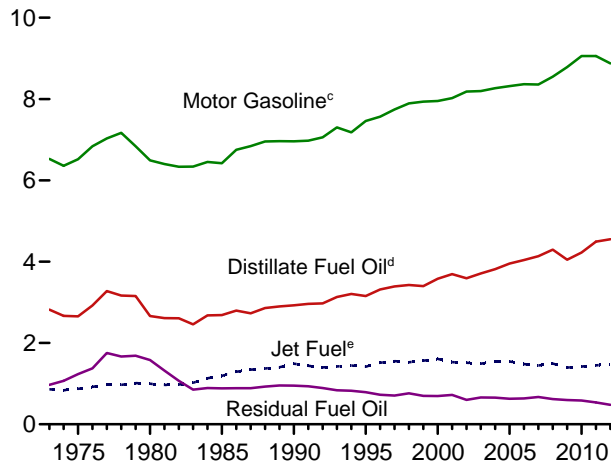
Net Inputs and Net Production, 1973-2012



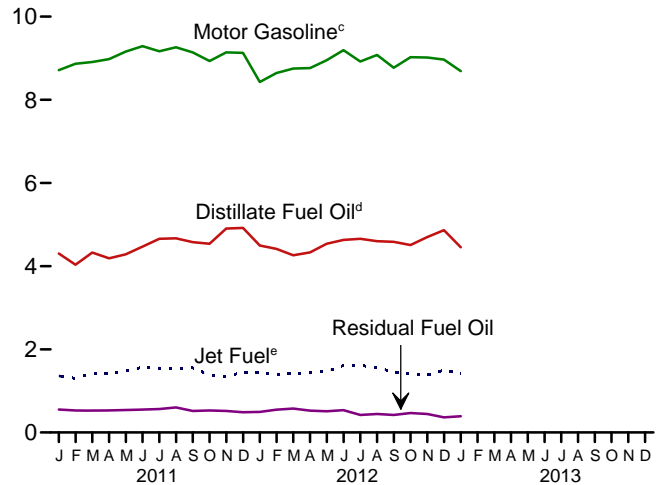
Net Inputs and Net Production, Monthly



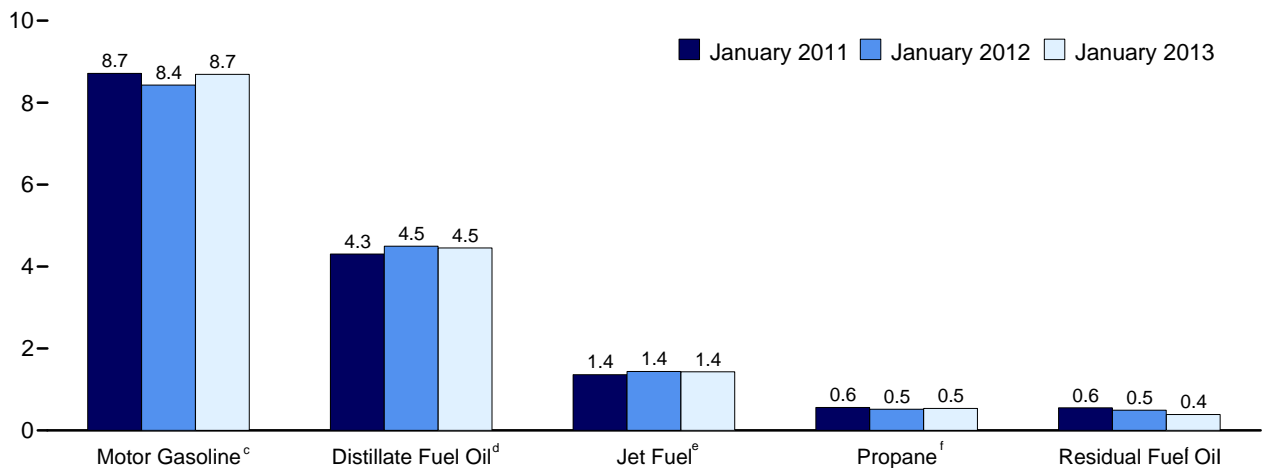
Net Production, Selected Products, 1973-2012



Net Production, Selected Products, Monthly



Net Production, Selected Products



<sup>a</sup> Includes lease condensate.

<sup>b</sup> Natural gas plant liquids and other liquids.

<sup>c</sup> Beginning in 1993, includes fuel ethanol blended into motor gasoline.

<sup>d</sup> Beginning in 2009, includes renewable diesel fuel (including biodiesel) blended into distillate fuel oil.

<sup>e</sup> Beginning in 2005, includes kerosene-type jet fuel only.

<sup>f</sup> Includes propylene.

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

Source: Table 3.2.



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

	Refinery and Blender Net Inputs <sup>a</sup>				Refinery and Blender Net Production <sup>b</sup>							
	Crude Oil <sup>d</sup>	NGL <sup>e</sup>	Other Liquids <sup>f</sup>	Total	Distillate Fuel Oil <sup>g</sup>	Jet Fuel <sup>h</sup>	LPG <sup>c</sup>		Motor Gasoline <sup>i</sup>	Residual Fuel Oil	Other Products <sup>k</sup>	Total
							Propane <sup>l</sup>	Total				
<b>1973 Average</b> .....	12,431	815	155	13,401	2,820	859	271	375	6,527	971	2,301	13,854
<b>1975 Average</b> .....	12,442	710	72	13,225	2,653	871	234	311	6,518	1,235	2,097	13,685
<b>1980 Average</b> .....	13,481	462	81	14,025	2,661	999	269	330	6,492	1,580	2,559	14,622
<b>1985 Average</b> .....	12,002	509	681	13,192	2,686	1,189	295	391	6,419	882	2,183	13,750
<b>1990 Average</b> .....	13,409	467	713	14,589	2,925	1,488	404	499	6,959	950	2,452	15,272
<b>1995 Average</b> .....	13,973	471	775	15,220	3,155	1,416	503	654	7,459	788	2,522	15,994
<b>1996 Average</b> .....	14,195	450	843	15,487	3,316	1,515	520	662	7,565	726	2,541	16,324
<b>1997 Average</b> .....	14,662	416	832	15,909	3,392	1,554	565	691	7,743	708	2,671	16,759
<b>1998 Average</b> .....	14,889	403	853	16,144	3,424	1,526	550	674	7,892	762	2,753	17,030
<b>1999 Average</b> .....	14,804	372	927	16,103	3,399	1,565	569	684	7,934	698	2,709	16,989
<b>2000 Average</b> .....	15,067	380	849	16,295	3,580	1,606	583	705	7,951	696	2,705	17,243
<b>2001 Average</b> .....	15,128	429	825	16,382	3,695	1,530	556	667	8,022	721	2,651	17,285
<b>2002 Average</b> .....	14,947	429	941	16,316	3,592	1,514	572	671	8,183	601	2,712	17,273
<b>2003 Average</b> .....	15,304	419	791	16,513	3,707	1,488	570	658	8,194	660	2,780	17,487
<b>2004 Average</b> .....	15,475	422	866	16,762	3,814	1,547	584	645	8,265	655	2,887	17,814
<b>2005 Average</b> .....	15,220	441	1,149	16,811	3,954	1,546	540	573	8,318	628	2,782	17,900
<b>2006 Average</b> .....	15,242	501	1,238	16,981	4,040	1,481	543	627	8,364	635	2,827	17,975
<b>2007 Average</b> .....	15,156	505	1,337	16,999	4,133	1,448	562	655	8,358	673	2,728	17,994
<b>2008 Average</b> .....	14,648	485	2,019	17,153	4,294	1,493	519	630	8,548	620	2,561	18,146
<b>2009 Average</b> .....	14,336	485	2,082	16,904	4,048	1,396	537	623	8,786	598	2,431	17,882
<b>2010</b>												
January .....	13,666	503	1,501	15,670	3,551	1,338	531	480	8,348	633	2,281	16,631
February .....	13,950	402	1,654	16,005	3,658	1,340	562	540	8,510	632	2,385	17,065
March .....	14,314	413	2,166	16,893	3,835	1,379	575	726	8,913	581	2,523	17,957
April .....	15,131	374	2,135	17,640	4,156	1,470	585	850	9,062	598	2,531	18,668
May .....	15,215	399	2,348	17,963	4,375	1,449	571	857	9,113	615	2,622	19,031
June .....	15,382	397	2,349	18,127	4,408	1,495	572	870	9,211	559	2,670	19,212
July .....	15,519	384	2,595	18,498	4,425	1,542	574	860	9,500	576	2,704	19,607
August .....	15,110	390	2,607	18,107	4,404	1,463	552	778	9,426	554	2,605	19,230
September .....	14,740	443	2,294	17,477	4,341	1,404	551	614	9,143	588	2,449	18,539
October .....	14,000	504	2,517	17,021	4,315	1,317	526	501	9,049	528	2,323	18,033
November .....	14,637	531	2,223	17,391	4,503	1,394	543	390	9,134	564	2,457	18,442
December .....	14,976	563	2,185	17,724	4,670	1,417	572	430	9,252	595	2,547	18,911
<b>Average</b> .....	<b>14,724</b>	<b>442</b>	<b>2,219</b>	<b>17,385</b>	<b>4,223</b>	<b>1,418</b>	<b>560</b>	<b>659</b>	<b>9,059</b>	<b>585</b>	<b>2,509</b>	<b>18,452</b>
<b>2011</b>												
January .....	14,423	549	1,835	16,807	4,303	1,362	561	431	8,714	552	2,464	17,826
February .....	13,676	515	2,388	16,579	4,033	1,298	512	472	8,866	529	2,335	17,533
March .....	14,451	460	2,350	17,261	4,326	1,431	528	636	8,908	526	2,454	18,280
April .....	14,231	448	2,606	17,285	4,189	1,422	542	781	8,978	534	2,394	18,298
May .....	14,718	432	2,535	17,685	4,283	1,479	563	815	9,157	538	2,496	18,770
June .....	15,294	444	2,522	18,260	4,471	1,568	567	847	9,289	553	2,638	19,366
July .....	15,589	417	2,288	18,294	4,656	1,550	557	820	9,166	563	2,661	19,416
August .....	15,556	437	2,396	18,388	4,668	1,543	553	791	9,264	604	2,652	19,522
September .....	15,275	494	2,100	17,870	4,576	1,553	569	603	9,140	516	2,605	18,993
October .....	14,570	524	2,205	17,298	4,539	1,378	540	480	8,932	530	2,525	18,382
November .....	14,960	599	2,118	17,677	4,902	1,341	564	377	9,141	516	2,513	18,790
December .....	14,842	566	2,270	17,678	4,919	1,449	566	368	9,128	486	2,462	18,812
<b>Average</b> .....	<b>14,806</b>	<b>490</b>	<b>2,300</b>	<b>17,596</b>	<b>4,492</b>	<b>1,449</b>	<b>552</b>	<b>619</b>	<b>9,058</b>	<b>537</b>	<b>2,518</b>	<b>18,673</b>
<b>2012</b>												
January .....	14,415	513	1,633	16,561	4,498	1,437	518	414	8,427	495	2,343	17,613
February .....	14,659	531	1,618	16,809	4,416	1,401	532	492	8,645	547	2,375	17,876
March .....	14,545	445	2,022	17,012	4,262	1,412	545	685	8,753	577	2,347	18,035
April .....	14,614	443	2,215	17,272	4,330	1,433	558	833	8,763	525	2,436	18,319
May .....	15,177	429	2,228	17,833	4,537	1,468	569	856	8,952	509	2,601	18,922
June .....	15,632	442	2,222	18,297	4,632	1,609	585	841	9,193	538	2,582	19,396
July .....	15,656	435	1,944	18,036	4,659	1,611	565	841	9,921	420	2,644	19,034
August .....	15,259	435	2,239	17,932	4,599	1,559	543	777	9,079	443	2,577	19,096
September .....	14,863	522	1,794	17,179	4,584	1,450	522	553	8,770	420	2,450	18,226
October .....	14,854	620	1,846	17,320	4,509	1,418	543	476	9,026	467	2,421	18,318
November .....	R 15,054	R 624	R 1,591	R 17,269	R 4,702	R 1,378	R 550	R 366	R 9,016	R 445	R 2,480	R 18,387
December .....	F 15,389	F 610	RE 1,594	RF 17,593	E 4,865	E 1,497	RE 610	F 377	E 8,966	E 362	RE 2,638	RE 18,705
<b>Average</b> .....	<b>RE 15,011</b>	<b>RE 504</b>	<b>RE 1,913</b>	<b>RE 17,429</b>	<b>RE 4,550</b>	<b>RE 1,473</b>	<b>RE 553</b>	<b>E 626</b>	<b>RE 8,876</b>	<b>RE 479</b>	<b>RE 2,492</b>	<b>RE 18,496</b>
<b>2013</b>												
January .....	E 14,623	F 551	E 1,523	F 16,697	E 4,453	E 1,431	E 539	F 425	E 8,689	E 390	E 2,357	E 17,745

<sup>a</sup> See "Refinery and Blender Net Inputs," in Glossary.

<sup>b</sup> See "Refinery and Blender Net Production," in Glossary.

<sup>c</sup> Liquefied petroleum gases.

<sup>d</sup> Includes lease condensate.

<sup>e</sup> Natural gas plant liquids (liquefied petroleum gases and pentanes plus).

<sup>f</sup> Unfinished oils (net), other hydrocarbons, and hydrogen. Beginning in 1981, also includes aviation and motor gasoline blending components (net). Beginning in 1993, also includes oxygenates (net), including fuel ethanol. Beginning in 2009, also includes renewable diesel fuel (including biodiesel).

<sup>g</sup> Beginning in 2009, includes renewable diesel fuel (including biodiesel) blended into distillate fuel oil.

<sup>h</sup> Through 2004, includes kerosene-type and naphtha-type jet fuel. Beginning in 2005, includes kerosene-type jet fuel only; naphtha-type jet fuel is included in "Other Products."

<sup>i</sup> Includes propylene.

<sup>j</sup> Finished motor gasoline. Beginning in 1993, also includes fuel ethanol blended into motor gasoline.

<sup>k</sup> Asphalt and road oil, finished aviation gasoline, kerosene, lubricants, petrochemical feedstocks, petroleum coke, special naphthas, still gas, waxes, and miscellaneous products. Beginning in 2005, also includes naphtha-type jet fuel.

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

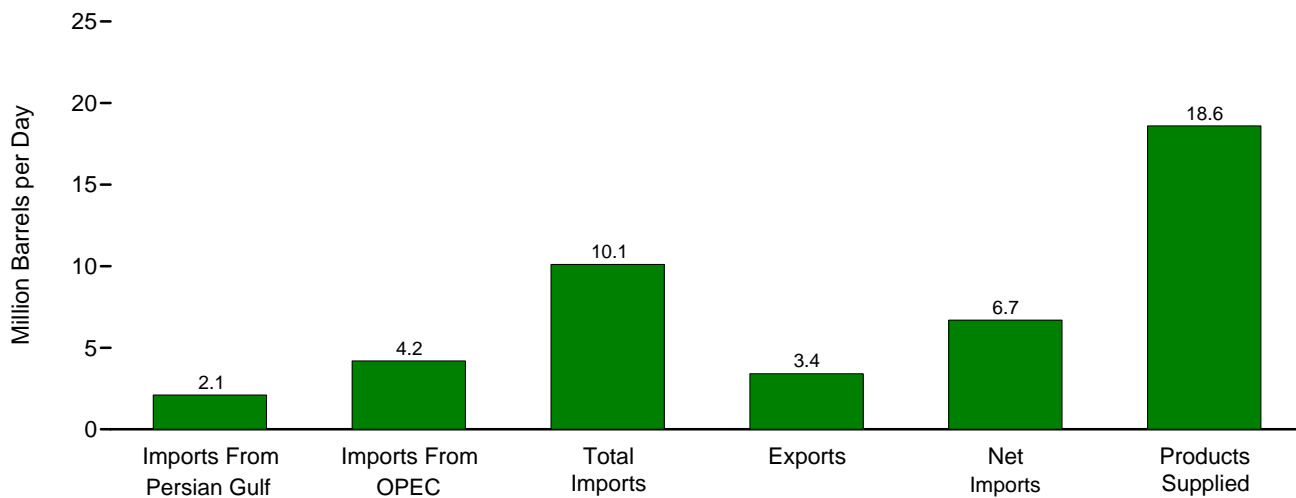
Notes: • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Pages: • For all available data beginning in 1973, see <http://www.eia.gov/totalenergy/data/monthly/#petroleum>. • For related information, see <http://www.eia.gov/petroleum/>.

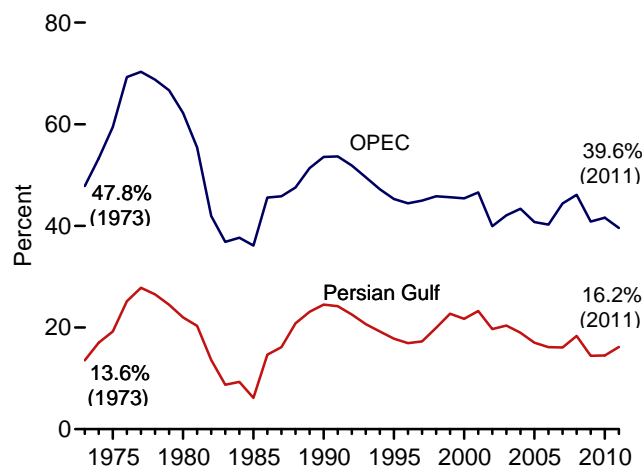
Sources: • 1973-1975: Bureau of Mines, Mineral Industry Surveys, *Petroleum Statement, Annual*, annual reports. • 1976-1980: U.S. Energy Information Administration (EIA), *Energy Data Reports, Petroleum Statement, Annual*, annual reports. • 1981-2011: EIA, *Petroleum Supply Monthly*, monthly reports; and, for the current two months, *Weekly Petroleum Status Report* data system, Short-Term Integrated Forecasting System, and *Monthly Energy Review* data system calculations.

### Figure 3.3a Petroleum Trade: Overview

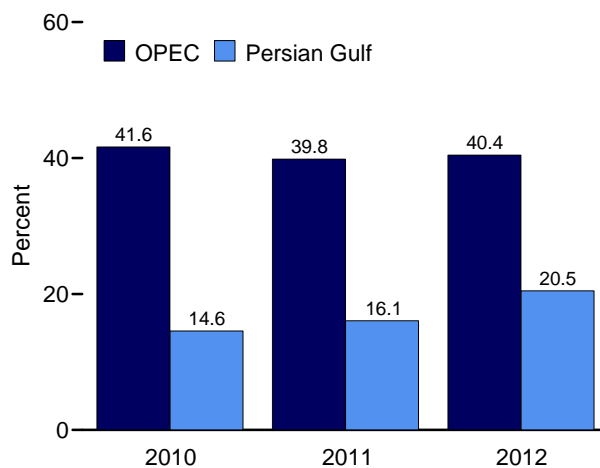
Overview, November 2012



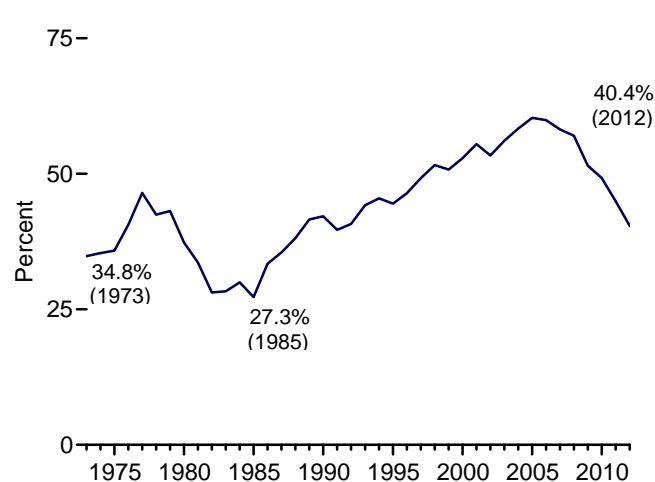
Imports From OPEC and Persian Gulf as Share of Total Imports, 1973-2011



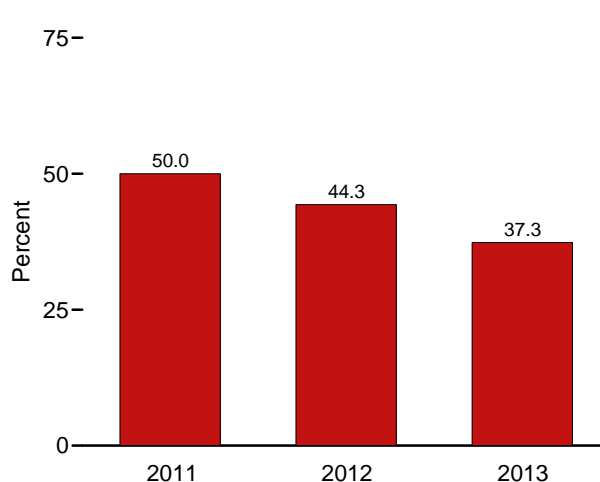
Imports From OPEC and Persian Gulf as Share of Total Imports, January-November



Net Imports as Share of Products Supplied, 1973-2012



Net Imports as Share of Products Supplied, January



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 <sup>a</sup>	Imports From OPEC <sup>b</sup>	Imports	Exports	Net Imports	Products Supplied	As Share of Products Supplied				As Share of Total Imports	
							Imports From Persian Gulf <sup>a</sup>	Imports From OPEC <sup>b</sup>	Imports	Net Imports	Imports From Persian Gulf <sup>a</sup>	Imports From OPEC <sup>b</sup>
							Thousand Barrels per Day					
<b>1973 Average</b> .....	848	2,993	6,256	231	6,025	17,308	4.9	17.3	36.1	34.8	13.6	47.8
<b>1975 Average</b> .....	1,165	3,601	6,056	209	5,846	16,322	7.1	22.1	37.1	35.8	19.2	59.5
<b>1980 Average</b> .....	1,519	4,300	6,909	544	6,365	17,056	8.9	25.2	40.5	37.3	22.0	62.2
<b>1985 Average</b> .....	311	1,830	5,067	781	4,286	15,726	2.0	11.6	32.2	27.3	6.1	36.1
<b>1990 Average</b> .....	1,966	4,296	8,018	857	7,161	16,988	11.6	25.3	47.2	42.2	24.5	53.6
<b>1995 Average</b> .....	1,573	4,002	8,835	949	7,886	17,725	8.9	22.6	49.8	44.5	17.8	45.3
<b>1996 Average</b> .....	1,604	4,211	9,478	981	8,498	18,309	8.8	23.0	51.8	46.4	16.9	44.4
<b>1997 Average</b> .....	1,755	4,569	10,162	1,003	9,158	18,620	9.4	24.5	54.6	49.2	17.3	45.0
<b>1998 Average</b> .....	2,136	4,905	10,708	945	9,764	18,917	11.3	25.9	56.6	51.6	19.9	45.8
<b>1999 Average</b> .....	2,464	4,953	10,852	940	9,912	19,519	12.6	25.4	55.6	50.8	22.7	45.6
<b>2000 Average</b> .....	2,488	5,203	11,459	1,040	10,419	19,701	12.6	26.4	58.2	52.9	21.7	45.4
<b>2001 Average</b> .....	2,761	5,528	11,871	971	10,900	19,649	14.1	28.1	60.4	55.5	23.3	46.6
<b>2002 Average</b> .....	2,269	4,605	11,530	984	10,546	19,761	11.5	23.3	58.3	53.4	19.7	39.9
<b>2003 Average</b> .....	2,501	5,162	12,264	1,027	11,238	20,034	12.5	25.8	61.2	56.1	20.4	42.1
<b>2004 Average</b> .....	2,493	5,701	13,145	1,048	12,097	20,731	12.0	27.5	63.4	58.4	19.0	43.4
<b>2005 Average</b> .....	2,334	5,587	13,714	1,165	12,549	20,802	11.2	26.9	65.9	60.3	17.0	40.7
<b>2006 Average</b> .....	2,211	5,517	13,707	1,317	12,390	20,687	10.7	26.7	66.3	59.9	16.1	40.2
<b>2007 Average</b> .....	2,163	5,980	13,468	1,433	12,036	20,680	10.5	28.9	65.1	58.2	16.1	44.4
<b>2008 Average</b> .....	2,370	5,954	12,915	1,802	11,114	19,498	12.2	30.5	66.2	57.0	18.4	46.1
<b>2009 Average</b> .....	1,689	4,776	11,691	2,024	9,667	18,771	9.0	25.4	62.3	51.5	14.4	40.9
<b>2010</b>												
January .....	1,563	4,554	11,300	1,897	9,404	18,652	8.4	24.4	60.6	50.4	13.8	40.3
February .....	1,666	4,659	11,230	2,034	9,197	18,850	8.8	24.7	59.6	48.8	14.8	41.5
March .....	1,842	5,084	11,621	2,149	9,472	19,099	9.6	26.6	60.8	49.6	15.9	43.7
April .....	2,026	5,376	12,526	2,432	10,093	19,044	10.6	28.2	65.8	53.0	16.2	42.9
May .....	1,724	5,055	12,141	2,399	9,742	18,866	9.1	26.8	64.4	51.6	14.2	41.6
June .....	1,972	5,297	12,444	2,304	10,140	19,537	10.1	27.1	63.7	51.9	15.8	42.6
July .....	1,679	5,178	12,675	2,516	10,159	19,319	8.7	26.8	65.6	52.6	13.2	40.8
August .....	1,663	5,117	12,356	2,410	9,946	19,662	8.5	26.0	62.8	50.6	13.5	41.4
September .....	1,698	5,111	11,823	2,345	9,478	19,438	8.7	26.3	60.8	48.8	14.4	43.2
October .....	1,490	4,305	11,142	2,480	8,662	18,974	7.9	22.7	58.7	45.7	13.4	38.6
November .....	1,662	4,525	11,096	2,598	8,498	18,977	8.8	23.8	58.5	44.8	15.0	40.8
December .....	1,564	4,614	11,132	2,644	8,488	19,722	7.9	23.4	56.4	43.0	14.0	41.4
<b>Average</b> .....	<b>1,711</b>	<b>4,906</b>	<b>11,793</b>	<b>2,353</b>	<b>9,441</b>	<b>19,180</b>	<b>8.9</b>	<b>25.6</b>	<b>61.5</b>	<b>49.2</b>	<b>14.5</b>	<b>41.6</b>
<b>2011</b>												
January .....	1,681	4,909	12,248	2,750	9,497	18,993	8.8	25.8	64.5	50.0	13.7	40.1
February .....	1,495	4,530	10,738	2,634	8,104	18,873	7.9	24.0	56.9	42.9	13.9	42.2
March .....	1,667	4,638	11,850	2,733	9,117	19,329	8.6	24.0	61.3	47.2	14.1	39.1
April .....	1,704	4,548	11,808	3,071	8,736	18,650	9.1	24.4	63.3	46.8	14.4	38.5
May .....	1,844	4,619	11,866	2,735	9,131	18,479	10.0	25.0	64.2	49.4	15.5	38.9
June .....	2,033	4,894	11,877	2,716	9,161	19,253	10.6	25.4	61.7	47.6	17.1	41.2
July .....	2,167	4,939	11,757	3,053	8,704	18,778	11.5	26.3	62.6	46.4	18.4	42.0
August .....	1,910	4,656	11,227	3,002	8,224	19,415	9.8	24.0	57.8	42.4	17.0	41.5
September .....	2,039	4,326	11,270	3,174	8,095	18,892	10.8	22.9	59.7	42.9	18.1	38.4
October .....	1,904	4,296	11,053	3,107	7,946	18,844	10.1	22.8	58.7	42.2	17.2	38.9
November .....	1,944	4,206	11,217	3,159	8,059	19,080	10.2	22.0	58.8	42.2	17.3	37.5
December .....	1,921	4,093	11,064	3,667	7,397	18,803	10.2	21.8	58.8	39.3	17.4	37.0
<b>Average</b> .....	<b>1,861</b>	<b>4,555</b>	<b>11,504</b>	<b>2,986</b>	<b>8,518</b>	<b>18,949</b>	<b>9.8</b>	<b>24.0</b>	<b>60.7</b>	<b>44.9</b>	<b>16.2</b>	<b>39.6</b>
<b>2012</b>												
January .....	2,208	4,203	10,944	2,839	8,104	18,280	12.1	23.0	59.9	44.3	20.2	38.4
February .....	1,948	3,986	10,464	2,980	7,484	18,760	10.4	21.2	55.8	39.9	18.6	38.1
March .....	2,222	4,314	10,610	3,064	7,547	18,213	12.2	23.7	58.3	41.4	20.9	40.7
April .....	2,228	4,394	10,634	3,263	7,370	18,330	12.2	24.0	58.0	40.2	21.0	41.3
May .....	2,560	4,672	11,132	3,194	7,939	18,707	13.7	25.0	59.5	42.4	23.0	42.0
June .....	2,376	4,618	11,393	3,209	8,184	18,915	12.6	24.4	60.2	43.3	20.9	40.5
July .....	2,131	4,331	10,748	3,211	7,537	18,601	11.5	23.3	57.8	40.5	19.8	40.3
August .....	2,071	4,344	10,898	3,017	7,881	19,226	10.8	22.6	56.7	41.0	19.0	39.9
September .....	2,071	4,268	10,533	3,150	7,383	18,173	11.4	23.5	58.0	40.6	19.7	40.5
October .....	2,141	4,186	10,088	3,255	6,833	18,722	11.4	22.4	53.9	36.5	21.2	41.5
November .....	<sup>R</sup> 2,103	<sup>R</sup> 4,195	<sup>R</sup> 10,103	<sup>R</sup> 3,404	<sup>R</sup> 6,698	<sup>R</sup> 18,604	<sup>R</sup> 11.3	<sup>R</sup> 22.5	<sup>R</sup> 54.3	<sup>R</sup> 36.0	<sup>R</sup> 20.8	<sup>R</sup> 41.5
December .....	NA	NA	<sup>E</sup> 10,235	<sup>E</sup> 2,920	<sup>E</sup> 7,315	<sup>E</sup> 18,965	NA	NA	<sup>E</sup> 54.0	<sup>E</sup> 38.6	NA	NA
<b>Average</b> .....	<b>NA</b>	<b>NA</b>	<b><sup>RE</sup> 10,649</b>	<b><sup>RE</sup> 3,125</b>	<b><sup>RE</sup> 7,524</b>	<b><sup>RE</sup> 18,625</b>	<b>NA</b>	<b>NA</b>	<b><sup>RE</sup> 57.2</b>	<b><sup>RE</sup> 40.4</b>	<b>NA</b>	<b>NA</b>
<b>2013</b>												
January .....	NA	NA	<sup>E</sup> 9,869	<sup>E</sup> 3,044	<sup>E</sup> 6,825	<sup>E</sup> 18,277	NA	NA	<sup>E</sup> 54.0	<sup>E</sup> 37.3	NA	NA

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

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

<sup>R</sup>=Revised, <sup>E</sup>=Estimate, NA=Not available.

Notes: • Readers of this table may be interested in a feature article, "Measuring Dependence on Imported Oil," that was published in the August 1995 *Monthly Energy Review*. See [http://www.eia.gov/totalenergy/data/monthly/pdf/historical/imported\\_oil.pdf](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

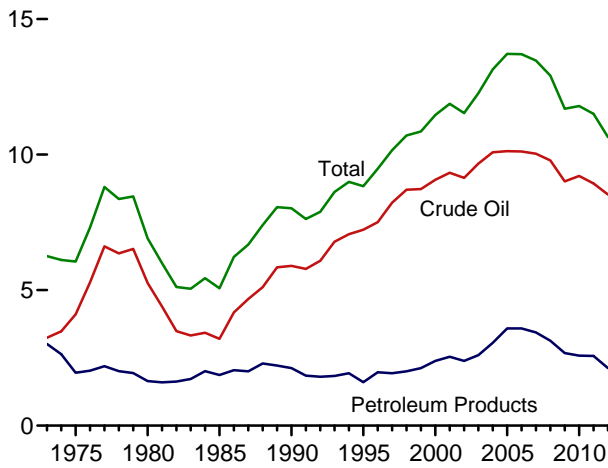
District of Columbia. U.S. exports include shipments to U.S. territories, and imports include receipts from U.S. territories.

Web Pages: • For all available data beginning in 1973, see <http://www.eia.gov/totalenergy/data/monthly/#petroleum>. • For related information, see <http://www.eia.gov/petroleum/>.

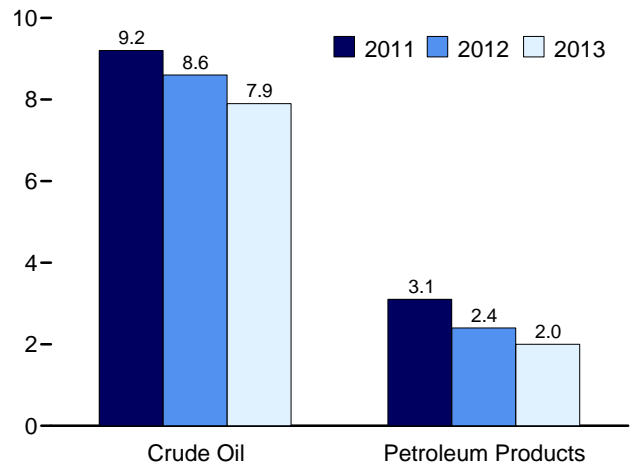
Sources: • **1973-1975:** Bureau of Mines, Mineral Industry Surveys, *Petroleum Statement, Annual*, annual reports. • **1976-1980:** U.S. Energy Information Administration (EIA), Energy Data Reports, *Petroleum Statement, Annual*, annual reports. • **1981-2011:** EIA, *Petroleum Supply Annual*, annual reports. • **2012 and 2013:** 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)

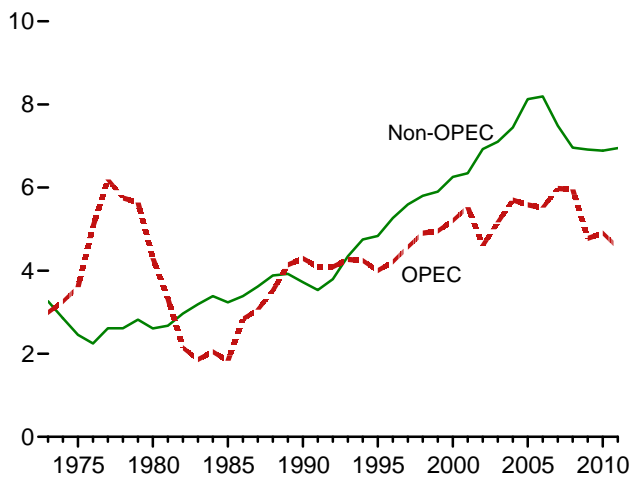
Overview, 1973-2012



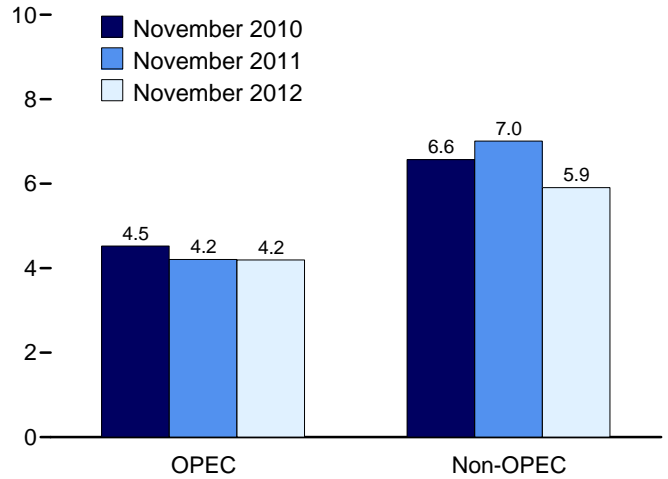
Crude Oil and Petroleum Products, January



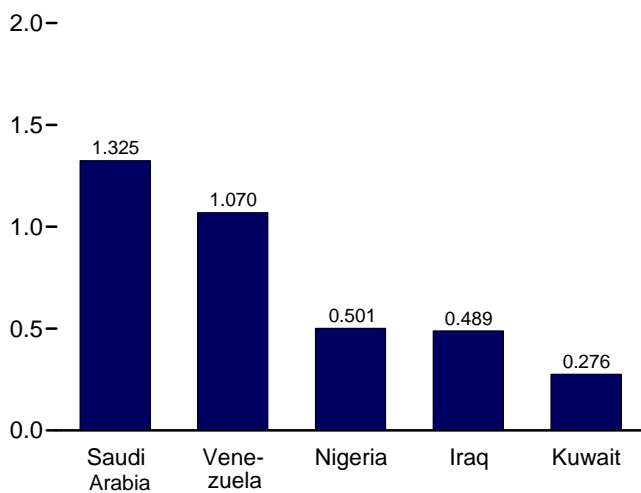
OPEC and Non-OPEC, 1973-2011



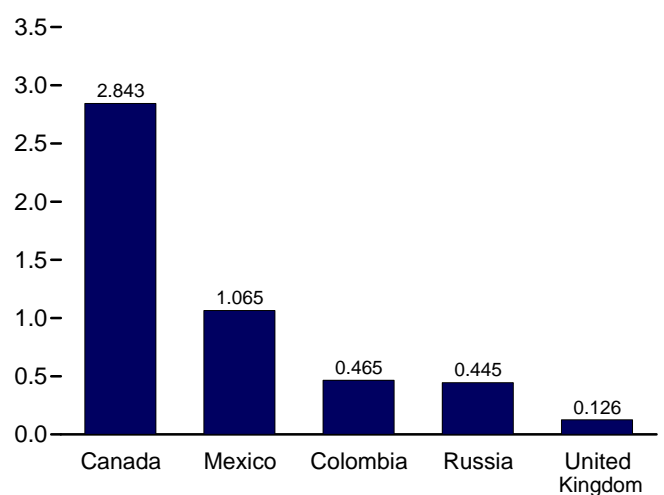
OPEC and Non-OPEC



From Selected OPEC Countries, November 2012



From Selected Non-OPEC Countries, November 2012



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 <sup>a</sup>		Distillate Fuel Oil	Jet Fuel <sup>e</sup>	LPG <sup>b</sup>		Motor Gasoline <sup>g</sup>	Residual Fuel Oil	Other <sup>h</sup>	Total	Crude Oil <sup>a</sup>	Petroleum Products	Total
	SPR <sup>c,d</sup>	Total			Propane <sup>f</sup>	Total							
1973 Average	--	3,244	392	212	71	132	134	1,853	290	6,256	2	229	231
1975 Average	--	4,105	155	133	60	112	184	1,223	144	6,056	6	204	209
1980 Average	44	5,263	142	80	69	216	140	939	130	6,909	287	258	544
1985 Average	118	3,201	200	39	67	187	381	510	550	5,067	204	577	781
1990 Average	27	5,894	278	108	115	188	342	504	705	8,018	109	748	857
1995 Average	--	7,230	193	106	102	146	265	187	708	8,835	95	855	949
1996 Average	--	7,508	230	111	119	166	336	248	879	9,478	110	871	981
1997 Average	--	8,225	228	91	113	169	309	194	945	10,162	108	896	1,003
1998 Average	--	8,706	210	124	137	194	311	275	888	10,708	110	835	945
1999 Average	8	8,731	250	128	122	182	382	237	943	10,852	118	822	940
2000 Average	8	9,071	295	162	161	215	427	352	938	11,459	50	990	1,040
2001 Average	11	9,328	344	148	145	206	454	295	1,095	11,871	20	951	971
2002 Average	16	9,140	267	107	145	183	498	249	1,085	11,530	9	975	984
2003 Average	--	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 January	--	8,492	462	131	192	225	179	376	1,435	11,300	33	1,864	1,897
February	--	8,761	293	75	217	242	196	382	1,282	11,230	58	1,976	2,034
March	--	9,341	179	79	137	155	120	376	1,370	11,621	45	2,104	2,149
April	--	9,726	220	88	79	102	178	480	1,732	12,526	37	2,396	2,432
May	--	9,655	189	81	82	108	107	404	1,599	12,141	36	2,363	2,399
June	--	9,927	237	114	73	113	163	283	1,607	12,444	31	2,273	2,304
July	--	9,932	170	113	56	104	114	400	1,841	12,675	69	2,447	2,516
August	--	9,543	246	103	62	107	129	330	1,899	12,356	36	2,374	2,410
September	--	9,229	189	122	85	124	130	367	1,662	11,823	61	2,283	2,345
October	--	8,540	163	94	131	165	86	337	1,758	11,142	23	2,457	2,480
November	--	8,699	178	101	132	165	117	345	1,491	11,096	32	2,567	2,598
December	--	8,695	219	73	214	231	99	315	1,501	11,132	40	2,604	2,644
Average	--	9,213	228	98	121	153	134	366	1,600	11,793	42	2,311	2,353
2011 January	--	9,183	337	65	235	290	102	411	1,860	12,248	72	2,678	2,750
February	--	8,184	206	68	220	266	119	364	1,532	10,738	30	2,604	2,634
March	--	9,183	190	65	205	260	135	378	1,639	11,850	36	2,696	2,733
April	--	8,839	191	80	141	177	138	424	1,959	11,808	41	3,031	3,071
May	--	9,059	170	91	118	160	137	306	1,942	11,866	37	2,698	2,735
June	--	9,235	127	82	115	160	130	353	1,789	11,877	36	2,680	2,716
July	--	9,276	157	95	115	157	92	246	1,733	11,757	73	2,980	3,053
August	--	8,936	148	66	123	167	106	231	1,573	11,227	34	2,969	3,002
September	--	8,914	179	58	141	176	99	277	1,567	11,270	35	3,139	3,174
October	--	8,907	128	61	129	166	66	286	1,440	11,053	51	3,057	3,107
November	--	8,724	138	72	152	191	74	341	1,677	11,217	64	3,094	3,159
December	--	8,711	175	21	210	258	60	330	1,509	11,064	53	3,614	3,667
Average	--	8,935	179	69	158	202	105	328	1,686	11,504	47	2,939	2,986
2012 January	--	8,572	156	6	145	168	99	305	1,637	10,944	56	2,783	2,839
February	--	8,558	142	41	125	155	46	226	1,296	10,464	59	2,921	2,980
March	--	8,767	136	5	108	136	91	271	1,205	10,610	60	3,004	3,064
April	--	8,591	98	56	102	129	53	240	1,466	10,634	32	3,231	3,263
May	--	8,909	111	49	172	218	60	251	1,534	11,132	69	3,124	3,194
June	--	9,101	87	42	133	170	66	325	1,602	11,393	46	3,163	3,209
July	--	8,606	113	48	148	182	52	247	1,501	10,748	77	3,134	3,211
August	--	8,631	110	124	142	186	37	233	1,577	10,898	60	2,957	3,017
September	--	8,375	84	84	149	191	35	256	1,507	10,533	58	3,092	3,150
October	--	8,091	88	106	135	176	26	219	1,382	10,088	67	3,188	3,255
November	--	R 8,130	R 189	R 46	R 136	R 156	R 32	R 236	R 1,314	R 10,103	R 73	R 3,331	R 3,404
December	--	E 8,032	E 190	E 24	E 172	NA	E 57	E 256	NA	E 10,235	E 43	E 2,877	E 2,920
Average	--	RE 8,530	RE 125	RE 53	RE 139	NA	RE 55	RE 255	NA	RE 10,649	RE 59	RE 3,066	RE 3,125
2013 January	--	E 7,897	E 177	E 40	E 151	NA	E 40	E 239	NA	E 9,869	E 44	E 3,000	E 3,044

<sup>a</sup> Includes lease condensate.

<sup>b</sup> Liquefied petroleum gases.

<sup>c</sup> "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.

<sup>d</sup> See Note 6, "Petroleum Data Discrepancies," at end of section.

<sup>e</sup> Through 2004, includes kerosene-type and naphtha-type jet fuel. Beginning in 2005, includes kerosene-type jet fuel only; naphtha-type jet fuel is included in "Other."

<sup>f</sup> Includes propylene.

<sup>g</sup> Finished motor gasoline. Through 1980, also includes motor gasoline blending components.

<sup>h</sup> Asphalt and road oil, finished aviation gasoline, gasoline blending components, kerosene, lubricants, pentanes plus, petrochemical feedstocks, petroleum coke, special naphthas, unfinished oils, waxes, other hydrocarbons and oxygenates, and miscellaneous products. Beginning in 2005, also includes

naphtha-type jet fuel.

R=Revised. E=Estimate. NA=Not available. -- =Not applicable. -- =No data reported.

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

Web Pages: • For all available data beginning in 1973, see <http://www.eia.gov/totalenergy/data/monthly/#petroleum>. • For related information, see <http://www.eia.gov/petroleum/>.

Sources: • 1973-1975: Bureau of Mines, Mineral Industry Surveys, *Petroleum Statement, Annual*, annual reports. • 1976-1980: U.S. Energy Information Administration (EIA), *Energy Data Reports, Petroleum Statement, Annual*, annual reports. • 1981-2011: EIA, *Petroleum Supply Annual*, annual reports. • 2012 and 2013: EIA, *Petroleum Supply Monthly*, monthly reports; and, for the current two months, *Weekly Petroleum Status Report* data system and *Monthly Energy Review* data system calculations.

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

	Algeria	Angola <sup>a</sup>	Ecuador <sup>b</sup>	Iraq	Kuwait <sup>c</sup>	Libya	Nigeria	Saudi Arabia <sup>c</sup>	Venezuela	Other <sup>d</sup>	Total OPEC
1973 Average	136	(a)	48	4	47	164	459	486	1,135	514	2,993
1975 Average	282	(a)	57	2	16	232	762	715	702	832	3,601
1980 Average	488	(a)	27	28	27	554	857	1,261	481	577	4,300
1985 Average	187	(a)	67	46	21	4	293	168	605	439	1,830
1990 Average	280	(a)	49	518	86	0	800	1,339	1,025	199	4,296
1995 Average	234	(a)	(b)	0	218	0	627	1,344	1,480	98	4,002
1996 Average	256	(a)	(b)	1	236	0	617	1,363	1,676	62	4,211
1997 Average	285	(a)	(b)	89	253	0	698	1,407	1,773	64	4,569
1998 Average	290	(a)	(b)	336	301	0	696	1,491	1,719	73	4,905
1999 Average	259	(a)	(b)	725	248	0	657	1,478	1,493	93	4,953
2000 Average	225	(a)	(b)	620	272	0	896	1,572	1,546	72	5,203
2001 Average	278	(a)	(b)	795	250	0	885	1,662	1,553	105	5,528
2002 Average	264	(a)	(b)	459	228	0	621	1,552	1,398	83	4,605
2003 Average	382	(a)	(b)	481	220	0	867	1,774	1,376	61	5,162
2004 Average	452	(a)	(b)	656	250	20	1,140	1,558	1,554	70	5,701
2005 Average	478	(a)	(b)	531	243	56	1,166	1,537	1,529	47	5,587
2006 Average	657	(a)	(b)	553	185	87	1,114	1,463	1,419	38	5,517
2007 Average	670	508	(b)	484	181	117	1,134	1,485	1,361	39	5,980
2008 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
<b>2010</b> January	498	280	215	523	77	40	1,048	963	911	–	4,554
February	498	360	152	540	228	40	932	898	1,010	–	4,659
March	455	502	183	475	218	79	962	1,149	1,061	–	5,084
April	464	509	225	490	278	142	1,060	1,257	951	–	5,376
May	518	448	182	394	225	39	1,026	1,097	1,117	10	5,055
June	550	425	245	630	217	98	1,108	1,125	899	–	5,297
July	518	374	239	430	189	110	1,174	1,053	1,084	7	5,178
August	565	484	276	281	251	123	985	1,132	1,022	–	5,117
September	543	417	229	422	172	43	1,174	1,093	1,008	10	5,111
October	451	324	203	143	215	36	872	1,131	930	–	4,305
November	572	276	194	340	170	23	856	1,152	942	–	4,525
December	484	319	192	336	125	66	1,070	1,093	917	9	4,614
<b>Average</b>	<b>510</b>	<b>393</b>	<b>212</b>	<b>415</b>	<b>197</b>	<b>70</b>	<b>1,023</b>	<b>1,096</b>	<b>988</b>	<b>3</b>	<b>4,906</b>
<b>2011</b> January	565	316	238	433	147	57	1,022	1,101	1,030	–	4,909
February	406	370	255	263	118	36	978	1,114	989	–	4,530
March	500	280	182	398	161	32	913	1,108	1,065	–	4,638
April	466	277	169	519	78	1	922	1,107	1,009	–	4,548
May	391	356	158	422	200	(s)	854	1,203	1,016	19	4,619
June	297	373	219	559	238	35	853	1,169	1,084	68	4,894
July	354	407	172	596	228	–	884	1,326	954	18	4,939
August	298	331	309	637	165	1	892	1,075	914	32	4,656
September	291	304	305	404	145	2	580	1,479	806	11	4,326
October	173	439	178	490	278	2	693	1,120	906	17	4,296
November	260	340	181	395	302	10	703	1,222	767	26	4,206
December	297	357	106	380	231	9	534	1,310	868	–	4,093
<b>Average</b>	<b>358</b>	<b>346</b>	<b>206</b>	<b>459</b>	<b>191</b>	<b>15</b>	<b>818</b>	<b>1,195</b>	<b>951</b>	<b>16</b>	<b>4,555</b>
<b>2012</b> January	269	370	100	390	352	5	504	1,423	750	41	4,203
February	256	230	244	271	252	29	353	1,420	931	–	3,986
March	325	175	174	386	462	60	374	1,374	984	–	4,314
April	259	253	201	395	235	68	483	1,589	904	7	4,394
May	303	256	199	675	407	65	428	1,471	861	7	4,672
June	236	378	236	649	250	93	515	1,456	788	17	4,618
July	213	285	176	352	304	110	372	1,466	1,046	7	4,331
August	303	153	180	550	301	126	504	1,220	1,007	–	4,344
September	175	237	218	461	310	67	468	1,291	1,035	6	4,268
October	186	183	122	593	287	59	543	1,257	951	4	4,186
November	199	157	136	489	276	30	501	1,325	1,070	12	4,195
<b>11-Month Average</b>	<b>248</b>	<b>243</b>	<b>180</b>	<b>475</b>	<b>313</b>	<b>65</b>	<b>459</b>	<b>1,390</b>	<b>939</b>	<b>9</b>	<b>4,321</b>
<b>2011 11-Month Average</b>	<b>364</b>	<b>345</b>	<b>215</b>	<b>467</b>	<b>188</b>	<b>16</b>	<b>845</b>	<b>1,184</b>	<b>958</b>	<b>17</b>	<b>4,598</b>
<b>2010 11-Month Average</b>	<b>512</b>	<b>400</b>	<b>213</b>	<b>423</b>	<b>203</b>	<b>70</b>	<b>1,018</b>	<b>1,097</b>	<b>994</b>	<b>2</b>	<b>4,933</b>

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

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

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

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

–=No data reported. (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 Pages: • For all available data beginning in 1973, see <http://www.eia.gov/totalenergy/data/monthly/#petroleum>. • For related information, see <http://www.eia.gov/petroleum/>.

Sources: • **1973-1975:** Bureau of Mines, Mineral Industry Surveys, *Petroleum Statement, Annual*, annual reports. • **1976-1980:** U.S. Energy Information Administration (EIA), Energy Data Reports, *Petroleum Statement, Annual*, annual reports. • **1981-2011:** EIA, *Petroleum Supply Annual*, annual reports. • **2012:** 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 <sup>a</sup>	United Kingdom	U.S. Virgin Islands	Other	Total Non-OPEC
1973 Average .....	9	1,325	9	16	53	1	26	15	329	1,480	3,263
1975 Average .....	5	846	9	71	19	17	14	14	406	1,052	2,454
1980 Average .....	3	455	4	533	2	144	1	176	388	903	2,609
1985 Average .....	61	770	23	816	58	32	8	310	247	913	3,237
1990 Average .....	49	934	182	755	55	102	45	189	282	1,128	3,721
1995 Average .....	8	1,332	219	1,068	15	273	25	383	278	1,233	4,833
1996 Average .....	9	1,424	234	1,244	19	313	25	308	313	1,377	5,267
1997 Average .....	5	1,563	271	1,385	25	309	13	226	300	1,495	5,593
1998 Average .....	26	1,598	354	1,351	31	236	24	250	293	1,640	5,803
1999 Average .....	26	1,539	468	1,324	27	304	89	365	280	1,478	5,899
2000 Average .....	51	1,807	342	1,373	30	343	72	366	291	1,581	6,257
2001 Average .....	82	1,828	296	1,440	43	341	90	324	268	1,631	6,343
2002 Average .....	116	1,971	260	1,547	66	393	210	478	236	1,649	6,925
2003 Average .....	108	2,072	195	1,623	87	270	254	440	288	1,766	7,103
2004 Average .....	104	2,138	176	1,665	101	244	298	380	330	2,008	7,444
2005 Average .....	156	2,181	196	1,662	151	233	410	396	328	2,413	8,127
2006 Average .....	193	2,353	155	1,705	174	196	369	272	328	2,446	8,190
2007 Average .....	200	2,455	155	1,532	128	142	414	277	346	1,839	7,489
2008 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
<b>2010</b> January .....	353	2,596	322	1,133	116	126	463	282	298	1,057	6,747
February .....	226	2,491	386	1,137	126	99	423	413	196	1,074	6,571
March .....	306	2,505	251	1,306	136	59	494	267	235	977	6,538
April .....	318	2,472	423	1,282	89	166	587	304	331	1,178	7,149
May .....	319	2,528	315	1,428	108	119	719	176	195	1,180	7,087
June .....	308	2,717	407	1,211	87	52	760	269	246	1,090	7,146
July .....	332	2,549	404	1,289	207	119	719	351	239	1,287	7,497
August .....	251	2,489	372	1,282	137	57	786	266	301	1,298	7,239
September .....	181	2,479	363	1,254	45	62	648	178	302	1,200	6,712
October .....	169	2,347	422	1,347	108	111	655	152	270	1,255	6,837
November .....	198	2,513	492	1,363	57	79	561	187	234	886	6,571
December .....	295	2,736	231	1,365	71	26	514	236	191	855	6,518
<b>Average .....</b>	<b>272</b>	<b>2,535</b>	<b>365</b>	<b>1,284</b>	<b>108</b>	<b>89</b>	<b>612</b>	<b>256</b>	<b>253</b>	<b>1,112</b>	<b>6,887</b>
<b>2011</b> January .....	263	3,004	355	1,366	101	85	558	155	276	1,176	7,338
February .....	179	2,997	258	1,103	129	69	437	110	179	749	6,209
March .....	165	2,819	427	1,319	91	156	690	198	149	1,198	7,211
April .....	228	2,755	548	1,077	133	167	704	193	179	1,275	7,260
May .....	298	2,564	433	1,303	129	101	684	245	194	1,296	7,247
June .....	283	2,586	309	1,222	175	93	689	146	151	1,330	6,983
July .....	330	2,691	418	1,197	80	58	564	175	192	1,113	6,818
August .....	239	2,688	395	1,185	81	87	585	125	185	1,001	6,571
September .....	190	2,880	529	1,192	64	97	592	124	189	1,087	6,943
October .....	190	2,719	578	1,177	23	180	687	150	151	902	6,757
November .....	245	2,858	424	1,256	96	174	737	125	177	918	7,011
December .....	417	3,009	508	1,064	101	88	552	162	214	857	6,971
<b>Average .....</b>	<b>253</b>	<b>2,796</b>	<b>433</b>	<b>1,206</b>	<b>100</b>	<b>113</b>	<b>624</b>	<b>159</b>	<b>186</b>	<b>1,077</b>	<b>6,948</b>
<b>2012</b> January .....	321	3,008	431	1,114	101	46	572	168	96	884	6,740
February .....	286	3,048	472	1,081	92	163	288	127	28	894	6,478
March .....	356	2,931	482	1,004	143	87	326	187	1	779	6,296
April .....	237	2,931	472	1,002	84	51	388	204	12	858	6,239
May .....	215	3,018	430	996	121	95	550	143	2	891	6,460
June .....	297	3,051	515	915	151	82	655	205	(s)	904	6,775
July .....	257	2,973	397	1,007	137	47	491	131	1	976	6,417
August .....	289	3,022	409	1,016	91	90	368	197	—	1,072	6,554
September .....	152	2,815	357	1,096	75	63	562	109	—	1,036	6,264
October .....	90	2,683	376	1,062	69	67	552	117	3	882	5,902
November .....	107	2,843	465	1,065	72	80	445	126	—	704	5,908
<b>11-Month Average .....</b>	<b>237</b>	<b>2,938</b>	<b>436</b>	<b>1,032</b>	<b>103</b>	<b>79</b>	<b>473</b>	<b>156</b>	<b>13</b>	<b>898</b>	<b>6,367</b>
<b>2011 11-Month Average .....</b>	<b>238</b>	<b>2,776</b>	<b>426</b>	<b>1,219</b>	<b>100</b>	<b>115</b>	<b>631</b>	<b>159</b>	<b>184</b>	<b>1,097</b>	<b>6,946</b>
<b>2010 11-Month Average .....</b>	<b>270</b>	<b>2,517</b>	<b>377</b>	<b>1,277</b>	<b>111</b>	<b>95</b>	<b>621</b>	<b>258</b>	<b>259</b>	<b>1,136</b>	<b>6,921</b>

<sup>a</sup> 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.  
— =No data reported. (s)=Less than 500 barrels per day.

Notes: • See "Organization of the Petroleum Exporting Countries (OPEC)" in Glossary for membership. Petroleum imports not classified as "OPEC" on Table 3.3c are included on this table. • The country of origin for petroleum products may not be the country of origin for the crude oil from which the products were produced. For example, refined products imported from West European refining areas may have been produced from Middle East crude oil. • Includes imports for the Strategic Petroleum Reserve, which began in October 1977. • Totals may not

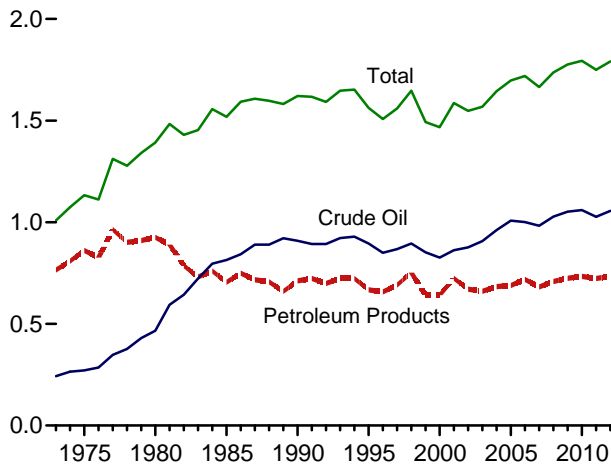
equal sum of components due to independent rounding. • U.S. geographic coverage is the 50 States and the District of Columbia.

Web Pages: • For all available data beginning in 1973, see <http://www.eia.gov/totalenergy/data/monthly/#petroleum>. • For related information, see <http://www.eia.gov/petroleum/>.

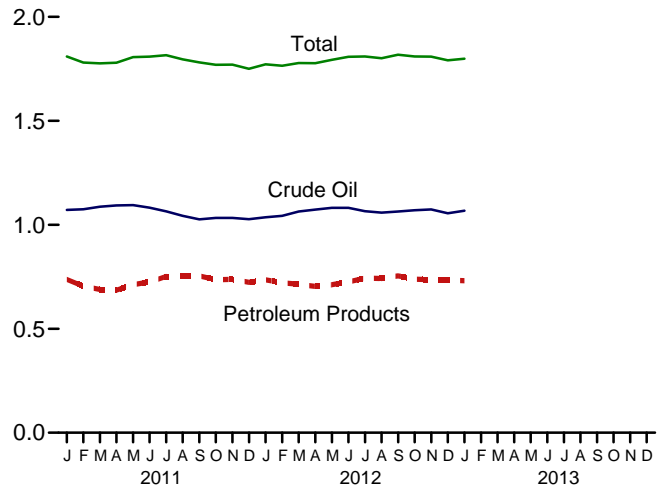
Sources: • **1973-1975:** Bureau of Mines, Mineral Industry Surveys, *Petroleum Statement, Annual*, annual reports. • **1976-1980:** U.S. Energy Information Administration (EIA), Energy Data Reports, *Petroleum Statement, Annual*, annual reports. • **1981-2011:** EIA, *Petroleum Supply Annual*, annual reports. • **2012:** EIA, *Petroleum Supply Monthly*, monthly reports.

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

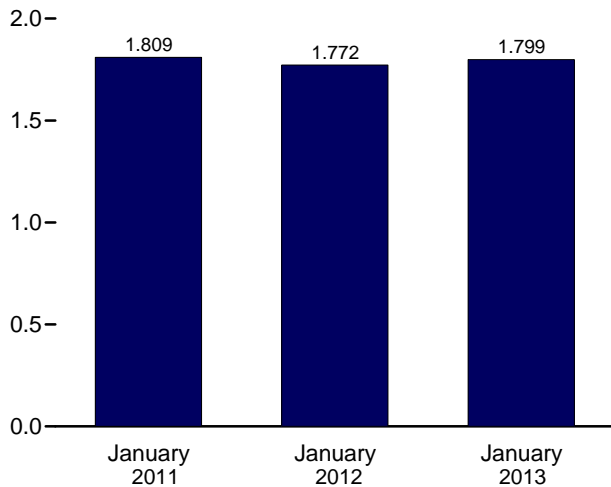
Overview, 1973-2012



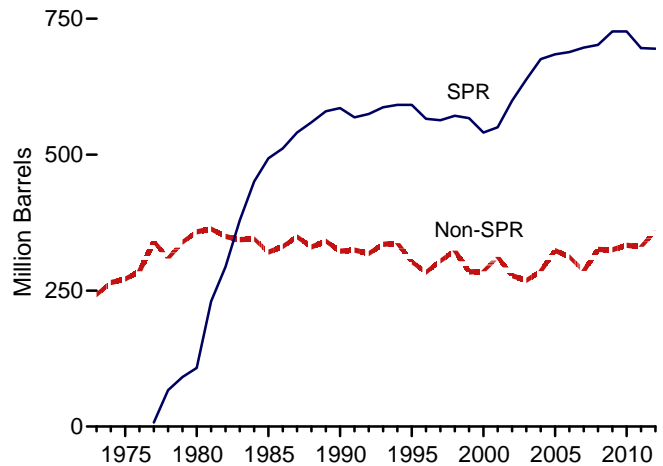
Overview, Monthly



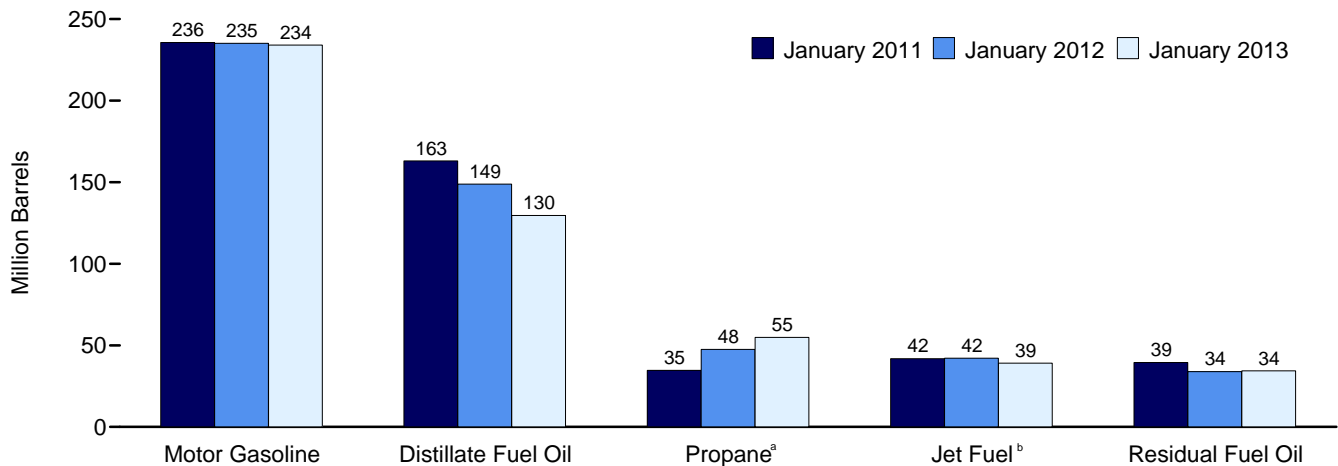
Total Stocks (Crude Oil and Petroleum Products)



SPR and Non-SPR Crude Oil Stocks, 1973-2012



Selected Products



<sup>a</sup> Includes propylene.

<sup>b</sup> Includes kerosene-type jet fuel only.

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)

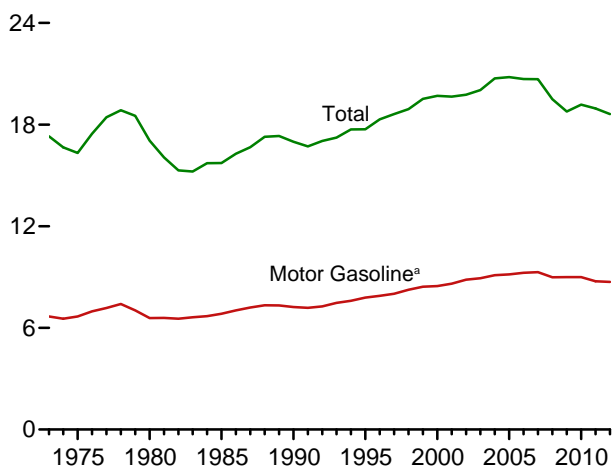
	Crude Oil <sup>a</sup>			Distillate Fuel Oil <sup>f,g</sup>	Jet Fuel <sup>h</sup>	LPG <sup>b</sup>		Motor Gasoline <sup>f,j</sup>	Residual Fuel Oil <sup>f</sup>	Other <sup>k</sup>	Total <sup>f</sup>
	SPR <sup>c</sup>	Non-SPR <sup>d,e,f</sup>	Total <sup>e,f</sup>			Propane <sup>f,i</sup>	Total <sup>f</sup>				
1973 Year	--	242	242	196	29	65	99	209	53	179	1,008
1975 Year	--	271	271	209	30	82	125	235	74	188	1,133
1980 Year	108	358	466	205	42	65	120	261	92	205	1,392
1985 Year	493	321	814	144	40	39	74	223	50	174	1,519
1990 Year	586	323	908	132	52	49	98	220	49	162	1,621
1995 Year	592	303	895	130	40	43	93	202	37	165	1,563
1996 Year	566	284	850	127	40	43	86	195	46	164	1,507
1997 Year	563	305	868	138	44	44	89	210	40	169	1,560
1998 Year	571	324	895	156	45	65	115	216	45	176	1,647
1999 Year	567	284	852	125	41	43	89	193	36	157	1,493
2000 Year	541	286	826	118	45	41	83	196	36	164	1,468
2001 Year	550	312	862	145	42	66	121	210	41	166	1,586
2002 Year	599	278	877	134	39	53	106	209	31	152	1,548
2003 Year	638	269	907	137	39	50	94	207	38	147	1,568
2004 Year	676	286	961	126	40	55	104	218	42	153	1,645
2005 Year	685	324	1,008	136	42	57	109	208	37	157	1,698
2006 Year	689	312	1,001	144	39	62	113	212	42	169	1,720
2007 Year	697	286	983	134	39	52	96	218	39	156	1,665
2008 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 January	727	337	1,063	164	44	35	80	232	40	162	1,786
February	727	343	1,070	155	44	28	70	235	41	170	1,785
March	727	359	1,086	147	42	28	73	225	41	174	1,787
April	727	363	1,090	145	44	35	89	220	44	178	1,810
May	727	362	1,089	150	45	42	105	218	46	178	1,830
June	727	365	1,092	158	45	49	120	216	43	169	1,842
July	727	358	1,084	167	47	55	130	220	41	166	1,855
August	727	359	1,086	170	47	59	139	221	39	159	1,862
September	727	363	1,089	167	47	61	141	219	40	158	1,861
October	727	368	1,094	162	44	61	138	210	41	158	1,847
November	727	352	1,079	162	44	61	131	213	41	158	1,827
December	727	333	1,060	164	43	49	108	219	41	158	1,794
2011 January	727	345	1,072	163	42	35	87	236	39	171	1,809
February	727	348	1,075	154	39	27	73	230	35	174	1,780
March	727	360	1,087	149	40	24	71	215	38	177	1,776
April	727	367	1,093	143	38	28	81	204	40	180	1,779
May	727	368	1,095	145	41	34	93	214	38	181	1,807
June	727	356	1,082	144	42	40	107	215	38	180	1,809
July	718	346	1,065	154	44	47	121	215	38	179	1,816
August	696	347	1,043	155	43	52	132	210	39	173	1,796
September	696	330	1,026	153	46	57	135	215	35	171	1,781
October	696	337	1,033	142	45	60	135	207	37	170	1,769
November	696	337	1,033	144	42	59	126	220	39	167	1,770
December	696	331	1,027	149	41	55	112	223	34	164	1,750
2012 January	696	340	1,036	149	42	48	101	235	34	175	1,772
February	696	347	1,043	139	41	43	96	231	36	179	1,765
March	696	368	1,064	134	39	45	102	219	36	184	1,778
April	696	377	1,073	125	40	50	116	211	34	179	1,777
May	696	386	1,082	122	40	56	133	205	33	179	1,794
June	696	386	1,082	120	38	62	147	208	37	176	1,808
July	696	370	1,066	127	40	69	159	210	36	172	1,809
August	696	363	1,058	127	43	73	171	201	34	166	1,801
September	695	369	1,064	127	44	76	175	201	36	172	1,818
October	695	375	1,070	119	45	74	168	204	37	166	1,810
November	695	R 379	R 1,074	R 118	R 41	R 73	R 158	R 215	R 38	R 166	R 1,809
December	E 695	E 361	E 1,056	E 128	E 39	E 66	RF 138	E 230	E 36	RE 164	E 1,791
2013 January	E 696	E 372	E 1,067	E 130	E 39	E 55	F 120	E 234	E 34	E 174	E 1,799

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

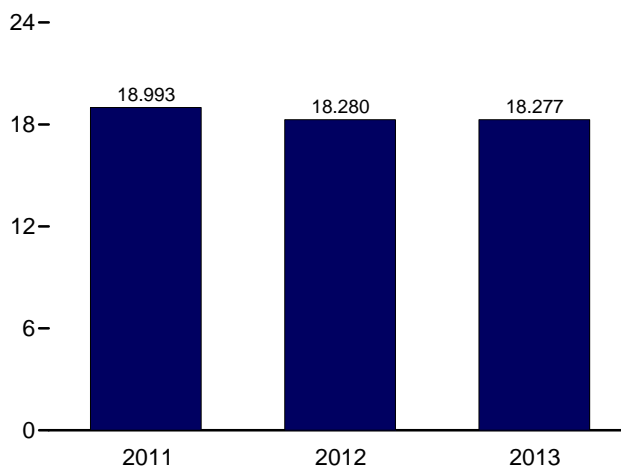
components, kerosene, lubricants, pentanes plus, petrochemical feedstocks, petroleum coke, special naphthas, unfinished oils, waxes, miscellaneous products, oxygenates, renewable fuels, and other hydrocarbons. Beginning in 2005, also includes naphtha-type jet fuel.  
R=Revised. E=Estimate. F=Forecast. -- =Not applicable.  
Notes: • Stocks are at end of period. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.  
Web Pages: • For all available data beginning in 1973, see <http://www.eia.gov/totalenergy/data/monthly/#petroleum>. • For related information, see <http://www.eia.gov/petroleum/>.  
Sources: • 1973-1975: Bureau of Mines, Mineral Industry Surveys, *Petroleum Statement, Annual*, annual reports. • 1976-1980: U.S. Energy Information Administration (EIA), *Energy Data Reports, Petroleum Statement, Annual*, annual reports. • 1981-2011: EIA, *Petroleum Supply Annual*, annual reports. • 2012 and 2013: EIA, *Petroleum Supply Monthly*, monthly reports; and, for the current two months, *Weekly Petroleum Status Report* data system, Short-Term Integrated Forecasting System, and *Monthly Energy Review* data system calculations.

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

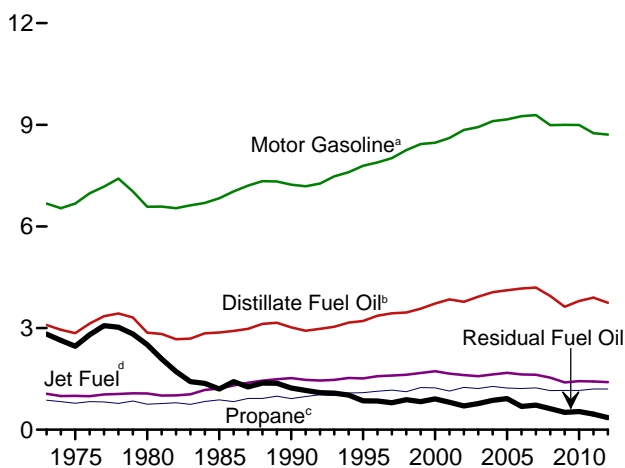
Total and Motor Gasoline, 1973-2012



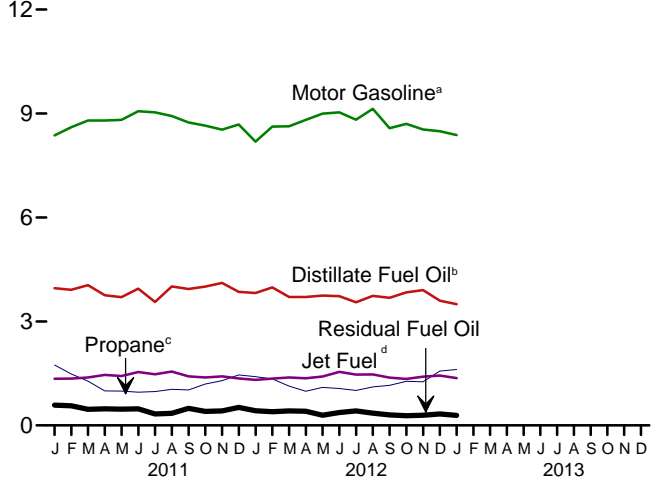
Total, January



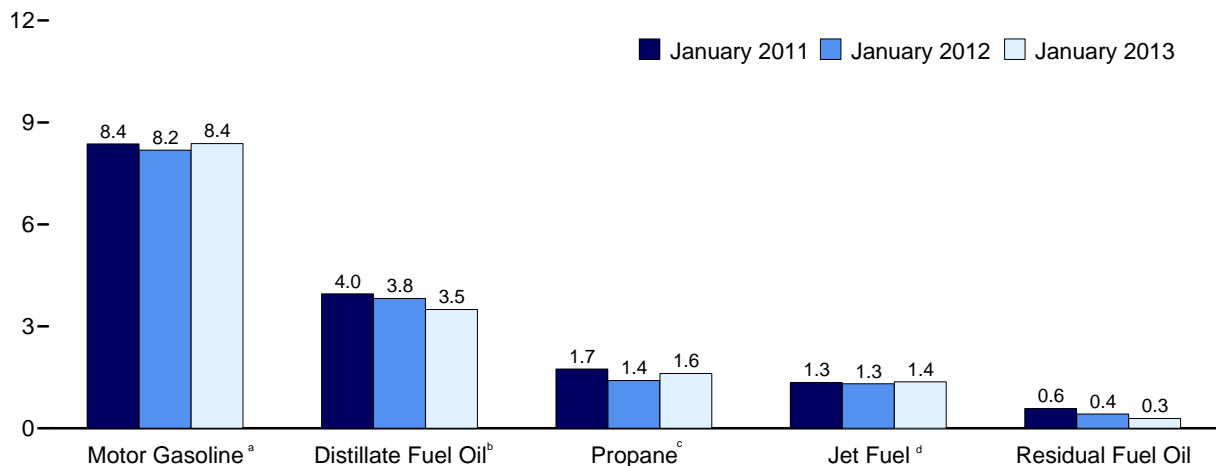
Selected Products, 1973-2012



Selected Products, Monthly



Selected Products



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

<sup>d</sup> Beginning in 2005, includes kerosene-type jet fuel only.  
 Note: SPR=Strategic Petroleum Reserve.  
 Web Page: <http://www.eia.gov/totalenergy/data/monthly/#petroleum>.  
 Source: Table 3.5.

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

	Asphalt and Road Oil	Aviation Gasoline	Distillate Fuel Oil <sup>b</sup>	Jet Fuel <sup>c</sup>	Kerosene	LPG <sup>a</sup>		Lubricants	Motor Gasoline <sup>e</sup>	Petroleum Coke	Residual Fuel Oil	Other <sup>f</sup>	Total
						Propane <sup>d</sup>	Total						
<b>1973 Average</b> .....	522	45	3,092	1,059	216	872	1,449	162	6,674	261	2,822	1,005	17,308
<b>1975 Average</b> .....	419	39	2,851	1,001	159	783	1,333	137	6,675	247	2,462	1,001	16,322
<b>1980 Average</b> .....	396	35	2,866	1,068	158	754	1,469	159	6,579	237	2,508	1,581	17,056
<b>1985 Average</b> .....	425	27	2,868	1,218	114	883	1,599	145	6,831	264	1,202	1,032	15,726
<b>1990 Average</b> .....	483	24	3,021	1,522	43	917	1,556	164	7,235	339	1,229	1,373	16,988
<b>1995 Average</b> .....	486	21	3,207	1,514	54	1,096	1,899	156	7,789	365	852	1,381	17,725
<b>1996 Average</b> .....	484	20	3,365	1,578	62	1,136	2,012	151	7,891	379	848	1,518	18,309
<b>1997 Average</b> .....	505	22	3,435	1,599	66	1,170	2,038	160	8,017	377	797	1,605	18,620
<b>1998 Average</b> .....	521	19	3,461	1,622	78	1,120	1,952	168	8,253	447	887	1,508	18,917
<b>1999 Average</b> .....	547	21	3,572	1,673	73	1,246	2,195	169	8,431	477	830	1,532	19,519
<b>2000 Average</b> .....	525	20	3,722	1,725	67	1,235	2,231	166	8,472	406	909	1,458	19,701
<b>2001 Average</b> .....	519	19	3,847	1,655	72	1,142	2,044	153	8,610	437	811	1,481	19,649
<b>2002 Average</b> .....	512	18	3,776	1,614	43	1,248	2,163	151	8,848	463	700	1,474	19,761
<b>2003 Average</b> .....	503	16	3,927	1,578	55	1,215	2,074	140	8,935	455	772	1,579	20,034
<b>2004 Average</b> .....	537	17	4,058	1,630	64	1,276	2,132	141	9,105	524	865	1,657	20,731
<b>2005 Average</b> .....	546	19	4,118	1,679	70	1,229	2,030	141	9,159	515	920	1,605	20,802
<b>2006 Average</b> .....	521	18	4,169	1,633	54	1,215	2,052	137	9,253	522	689	1,640	20,687
<b>2007 Average</b> .....	494	17	4,196	1,622	32	1,235	2,085	142	9,286	490	723	1,593	20,680
<b>2008 Average</b> .....	417	15	3,945	1,539	14	1,154	1,954	131	8,989	464	622	1,408	19,498
<b>2009 Average</b> .....	360	14	3,631	1,393	18	1,160	2,051	118	8,997	427	511	1,251	18,771
<b>2010 January</b> .....	203	10	3,701	1,344	15	1,638	2,644	116	8,520	268	615	1,218	18,652
<b>February</b> .....	249	10	3,854	1,343	34	1,526	2,531	137	8,579	334	515	1,263	18,850
<b>March</b> .....	264	14	3,835	1,443	11	1,193	2,225	138	8,793	425	531	1,421	19,099
<b>April</b> .....	331	17	3,759	1,410	7	916	1,843	132	9,108	385	590	1,463	19,044
<b>May</b> .....	378	15	3,639	1,446	11	891	1,878	128	9,162	339	519	1,351	18,866
<b>June</b> .....	517	18	3,743	1,543	16	901	1,938	155	9,311	411	500	1,386	19,537
<b>July</b> .....	470	20	3,544	1,494	19	915	1,978	141	9,301	385	595	1,373	19,319
<b>August</b> .....	537	14	3,830	1,486	9	973	2,025	129	9,255	434	476	1,467	19,662
<b>September</b> .....	463	20	3,886	1,457	8	1,040	2,084	136	9,112	433	513	1,326	19,438
<b>October</b> .....	434	15	3,773	1,430	15	1,135	2,126	127	9,016	335	489	1,215	18,974
<b>November</b> .....	295	11	3,873	1,396	46	1,168	2,141	125	8,816	389	552	1,333	18,977
<b>December</b> .....	204	12	4,176	1,383	50	1,634	2,677	113	8,911	371	525	1,301	19,722
<b>Average</b> .....	362	15	3,800	1,432	20	1,160	2,173	131	8,993	376	535	1,343	19,180
<b>2011 January</b> .....	221	11	3,958	1,346	19	1,743	2,757	124	8,370	361	582	1,244	18,993
<b>February</b> .....	248	14	3,913	1,352	50	1,485	2,527	121	8,604	293	566	1,185	18,873
<b>March</b> .....	282	18	4,045	1,385	26	1,277	2,410	150	8,799	348	462	1,405	19,329
<b>April</b> .....	311	10	3,755	1,457	8	996	2,043	136	8,796	355	477	1,301	18,650
<b>May</b> .....	357	18	3,699	1,424	(s)	989	2,077	122	8,817	414	468	1,082	18,479
<b>June</b> .....	454	17	3,947	1,540	4	958	2,027	125	9,067	379	479	1,213	19,253
<b>July</b> .....	465	19	3,564	1,473	9	976	2,039	119	9,031	368	329	1,363	18,778
<b>August</b> .....	545	18	4,009	1,554	5	1,040	2,102	137	8,925	461	347	1,311	19,415
<b>September</b> .....	462	13	3,936	1,416	8	1,021	2,050	125	8,744	349	491	1,299	18,892
<b>October</b> .....	423	16	4,003	1,384	2	1,195	2,227	102	8,649	395	405	1,239	18,844
<b>November</b> .....	297	12	4,109	1,416	6	1,292	2,393	124	8,537	377	419	1,391	19,080
<b>December</b> .....	187	10	3,853	1,353	12	1,458	2,616	111	8,683	229	519	1,228	18,803
<b>Average</b> .....	355	15	3,899	1,425	12	1,202	2,272	125	8,753	361	461	1,272	18,949
<b>2012 January</b> .....	216	12	3,823	1,313	2	1,406	2,463	129	8,187	367	420	1,349	18,280
<b>February</b> .....	218	11	3,980	1,350	23	1,343	2,421	139	8,622	297	394	1,306	18,760
<b>March</b> .....	236	14	3,706	1,382	2	1,134	2,226	111	8,633	323	416	1,163	18,213
<b>April</b> .....	329	14	3,704	1,359	3	986	2,069	122	8,817	338	408	1,166	18,330
<b>May</b> .....	378	17	3,745	1,409	1	1,095	2,152	116	8,996	376	294	1,224	18,707
<b>June</b> .....	454	13	3,729	1,545	2	1,064	2,072	107	9,035	372	372	1,214	18,915
<b>July</b> .....	461	20	3,552	1,468	2	1,008	2,120	104	8,819	338	418	1,298	18,601
<b>August</b> .....	485	13	3,740	1,469	1	1,110	2,190	111	9,135	409	353	1,320	19,226
<b>September</b> .....	444	15	3,681	1,379	3	1,157	2,224	103	8,575	357	302	1,090	18,173
<b>October</b> .....	369	14	3,838	1,341	3	1,273	2,388	110	8,700	319	279	1,361	18,722
<b>November</b> .....	R 282	R 11	R 3,902	R 1,407	R 3	R 1,258	R 2,367	R 116	R 8,539	R 380	R 294	R 1,303	R 18,604
<b>December</b> .....	F 200	RF 11	E 3,600	E 1,436	RF 13	E 1,568	RF 2,686	RF 122	E 8,490	F 383	E 332	RE 1,693	E 18,965
<b>Average</b> .....	RE 340	E 14	RE 3,749	RE 1,405	RE 5	RE 1,200	RE 2,282	RE 116	RE 8,712	E 355	RE 357	RE 1,292	RE 18,625
<b>2013 January</b> .....	F 225	F 12	E 3,497	E 1,366	F 1	E 1,614	F 2,701	F 138	E 8,377	F 327	E 290	E 1,345	E 18,277

<sup>a</sup> Liquefied petroleum gases.

<sup>b</sup> Beginning in 2009, includes renewable diesel fuel (including biodiesel) blended into distillate fuel oil.

<sup>c</sup> Through 2004, includes kerosene-type and naphtha-type jet fuel. Beginning in 2005, includes kerosene-type jet fuel only; naphtha-type jet fuel is included in "Other."

<sup>d</sup> Includes propylene.

<sup>e</sup> Finished motor gasoline. Beginning in 1993, also includes fuel ethanol blended into motor gasoline.

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

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

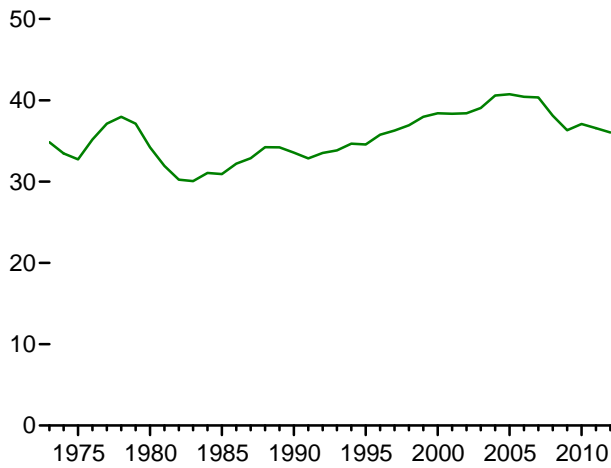
Notes: • Petroleum products supplied is an approximation of petroleum consumption and is synonymous with the term "petroleum consumption" in Tables 3.7a-3.8c. • See Note 7, "Petroleum Products Supplied and Petroleum Consumption," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Pages: • For all available data beginning in 1973, see <http://www.eia.gov/totalenergy/data/monthly/#petroleum>. • For related information, see <http://www.eia.gov/petroleum/>.

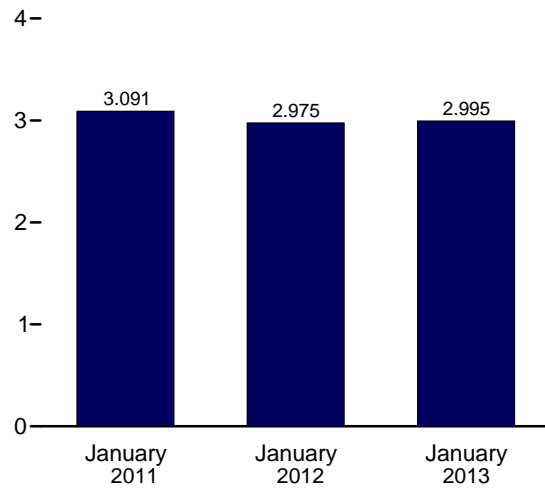
Sources: • **1973-1975:** Bureau of Mines, Mineral Industry Surveys, *Petroleum Statement, Annual*, annual reports. • **1976-1980:** U.S. Energy Information Administration (EIA), Energy Data Reports, *Petroleum Statement, Annual*, annual reports. • **1981-2011:** EIA, *Petroleum Supply Annual*, annual reports. • **2012 and 2013:** EIA, *Petroleum Supply Monthly*, monthly reports; and, for the current two months, *Weekly Petroleum Status Report* data system, Short-Term Integrated Forecasting System, and *Monthly Energy Review* data system calculations.

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

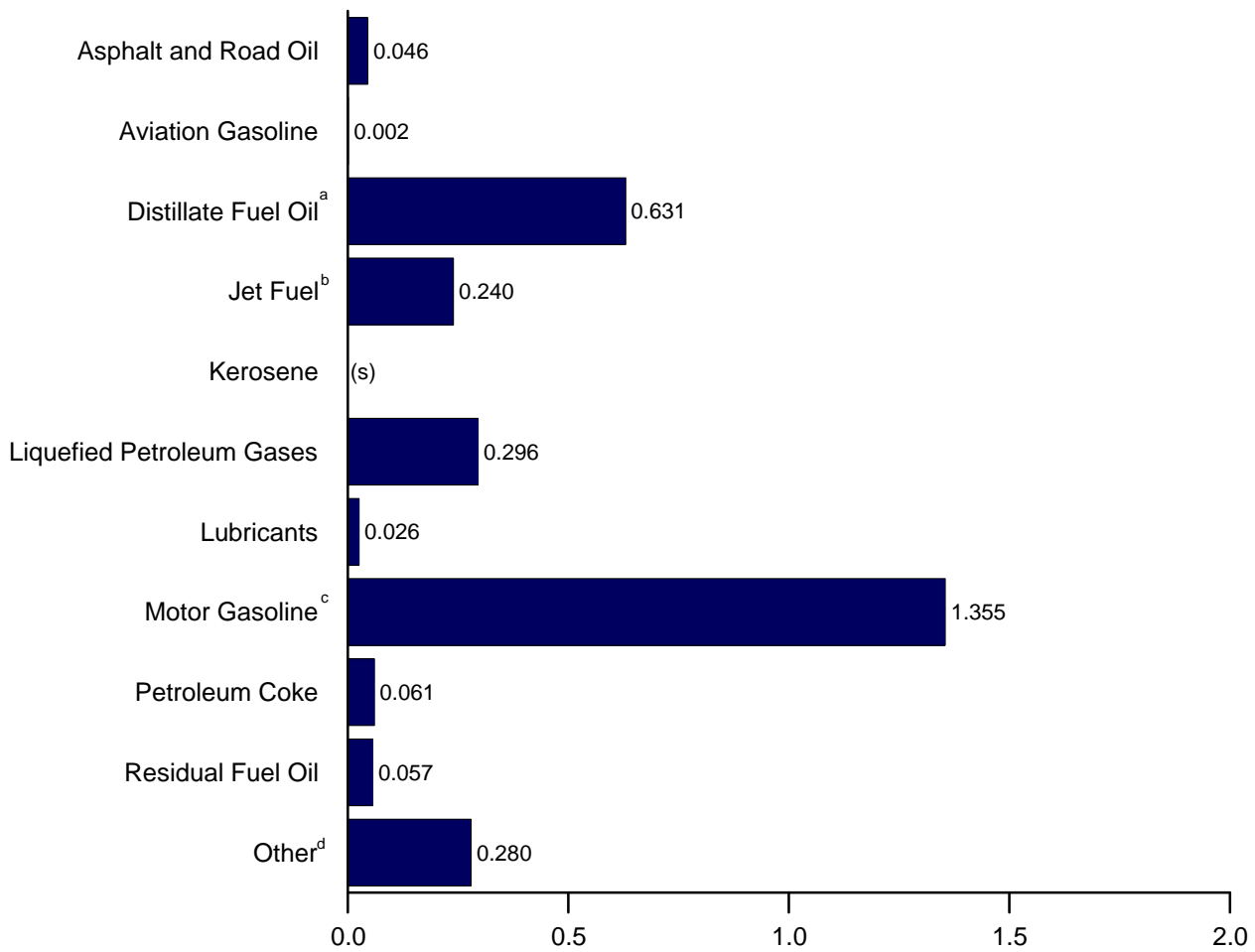
Total, 1973-2012



Total



By Product, January 2013



<sup>a</sup> Includes renewable diesel fuel (including biodiesel) blended into distillate fuel oil.

<sup>b</sup> Includes kerosene-type jet fuel only.

<sup>c</sup> Includes fuel ethanol blended into motor gasoline.

<sup>d</sup> All petroleum products not shown above.

(s)=Less than 0.0005 quadrillion Btu

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

Source: Table 3.6.

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

	Asphalt and Road Oil	Aviation Gasoline	Distillate Fuel Oil <sup>b</sup>	Jet Fuel <sup>c</sup>	Kerosene	LPG <sup>a</sup>		Lubricants	Motor Gasoline <sup>e</sup>	Petroleum Coke	Residual Fuel Oil	Other <sup>f</sup>	Total
						Propane <sup>d</sup>	Total						
1973 Total	1,264	83	6,575	2,167	447	1,221	1,981	359	12,797	573	6,477	2,114	34,837
1975 Total	1,014	71	6,061	2,047	329	1,097	1,807	304	12,798	542	5,649	2,109	32,732
1980 Total	962	64	6,110	2,190	329	1,059	1,976	354	12,648	522	5,772	3,278	34,205
1985 Total	1,029	50	6,098	2,497	236	1,236	2,103	322	13,098	582	2,759	2,152	30,925
1990 Total	1,170	45	6,422	3,129	88	1,284	2,059	362	13,872	745	2,820	2,839	33,552
1995 Total	1,178	40	6,818	3,132	112	1,534	2,512	346	14,825	802	1,955	2,837	34,556
1996 Total	1,176	37	7,175	3,274	128	1,594	2,660	335	15,064	837	1,952	3,121	35,759
1997 Total	1,224	40	7,304	3,308	136	1,638	2,690	354	15,254	829	1,828	3,298	36,265
1998 Total	1,263	35	7,359	3,357	162	1,568	2,575	371	15,701	982	2,036	3,093	36,934
1999 Total	1,324	39	7,595	3,462	151	1,745	2,897	375	16,036	1,048	1,905	3,129	37,960
2000 Total	1,276	36	7,935	3,580	140	1,734	2,945	369	16,155	895	2,091	2,979	38,402
2001 Total	1,257	35	8,179	3,426	150	1,598	2,697	338	16,373	961	1,861	3,056	38,333
2002 Total	1,240	34	8,028	3,340	90	1,747	2,852	334	16,819	1,018	1,605	3,040	38,400
2003 Total	1,220	30	8,349	3,265	113	1,701	2,748	309	16,981	1,000	1,772	3,264	39,051
2004 Total	1,304	31	8,652	3,383	133	1,791	2,824	313	17,379	1,156	1,990	3,428	40,593
2005 Total	1,323	35	8,755	3,475	144	1,721	2,682	312	17,444	1,133	2,111	3,318	40,732
2006 Total	1,261	33	8,864	3,379	111	1,701	2,700	303	17,622	1,148	1,581	3,416	40,420
2007 Total	1,197	32	8,921	3,358	67	1,729	2,733	313	17,689	1,077	1,659	3,313	40,358
2008 Total	1,012	28	8,411	3,193	30	1,620	2,574	291	17,168	1,022	1,432	2,941	38,101
2009 Total	873	27	7,720	2,883	36	1,624	2,664	262	17,135	938	1,173	2,611	36,321
2010 January	42	2	668	236	3	195	294	22	1,378	50	120	215	3,029
February	46	1	629	213	5	164	255	23	1,253	56	91	202	2,776
March	54	2	692	254	2	142	246	26	1,422	79	103	252	3,134
April	66	3	657	240	1	105	198	24	1,426	70	111	251	3,046
May	78	2	657	254	2	106	207	24	1,482	63	101	240	3,111
June	103	3	654	263	3	104	206	28	1,458	74	94	237	3,122
July	97	3	640	263	3	109	217	27	1,504	72	116	242	3,183
August	110	2	692	261	2	116	220	24	1,497	81	93	259	3,241
September	92	3	679	248	1	120	219	25	1,426	78	97	227	3,097
October	89	2	681	251	3	135	233	24	1,458	63	95	215	3,114
November	59	2	677	238	8	134	228	23	1,380	70	104	227	3,014
December	42	2	754	243	9	194	298	21	1,441	69	102	233	3,214
Total	878	27	8,080	2,963	41	1,624	2,821	291	17,127	826	1,228	2,800	37,082
2011 January	45	2	715	237	3	207	304	23	1,354	67	113	227	3,091
February	46	2	638	215	8	159	254	20	1,257	49	100	190	2,779
March	58	3	730	243	5	152	265	28	1,423	65	90	250	3,160
April	62	2	656	248	1	115	216	25	1,377	64	90	224	2,965
May	73	3	668	250	(s)	118	226	23	1,426	77	91	194	3,032
June	90	3	690	262	1	110	214	23	1,419	68	90	209	3,070
July	96	3	644	259	2	116	222	22	1,461	69	64	245	3,086
August	112	3	724	273	1	124	231	26	1,444	86	68	234	3,201
September	92	2	688	241	1	117	216	23	1,369	63	93	224	3,011
October	87	2	723	243	(s)	142	245	19	1,399	74	79	220	3,092
November	59	2	718	241	1	149	254	23	1,336	68	79	239	3,020
December	38	2	696	238	2	173	289	21	1,405	43	101	220	3,054
Total	859	27	8,289	2,950	25	1,682	2,937	276	16,670	794	1,058	2,676	36,562
2012 January	44	2	690	231	(s)	167	270	24	1,324	69	82	238	2,975
February	42	2	672	222	4	149	250	24	1,305	52	72	219	2,863
March	49	2	669	243	(s)	135	245	21	1,396	60	81	209	2,976
April	65	2	647	231	1	113	219	22	1,380	61	77	201	2,907
May	78	3	676	248	(s)	130	237	22	1,455	70	57	217	3,063
June	90	2	652	263	(s)	122	218	19	1,414	67	70	211	3,007
July	95	3	641	258	(s)	120	230	20	1,427	63	81	232	3,051
August	100	2	675	258	(s)	132	239	21	1,478	76	69	233	3,152
September	88	2	643	235	(s)	133	236	19	1,342	64	57	190	2,877
October	76	2	693	236	1	151	263	21	1,407	60	54	241	3,054
November	R 56	2	R 682	R 239	R 1	R 145	R 252	21	R 1,337	69	R 56	R 225	R 2,939
December	F 41	F 2	E 650	E 252	RF 2	E 186	RF 295	RF 23	E 1,373	F 71	E 65	RE 280	RE 3,055
Total	RE 825	E 25	RE 7,992	RE 2,915	RE 10	RE 1,685	RE 2,957	RE 257	RE 16,639	RE 783	RE 821	RE 2,809	RE 36,034
2013 January	F 46	F 2	E 631	E 240	F (s)	E 192	F 296	F 26	E 1,355	F 61	E 57	E 280	E 2,995

<sup>a</sup> Liquefied petroleum gases.

<sup>b</sup> Beginning in 2009, includes renewable diesel fuel (including biodiesel) blended into distillate fuel oil.

<sup>c</sup> Through 2004, includes kerosene-type and naphtha-type jet fuel. Beginning in 2005, includes kerosene-type jet fuel only; naphtha-type jet fuel is included in "Other."

<sup>d</sup> Includes propylene.

<sup>e</sup> Finished motor gasoline. Beginning in 1993, also includes fuel ethanol blended into motor gasoline.

<sup>f</sup> Pentanes plus, petrochemical feedstocks, special naphthas, still gas (refinery gas), waxes, and miscellaneous products. Beginning in 1981, also includes negative barrels per day of distillate and residual fuel oil reclassified as unfinished oils, and other products (from both primary and secondary supply) reclassified as gasoline blending components. Beginning in 1983, also includes crude oil burned

as fuel. Beginning in 2005, also includes naphtha-type jet fuel.

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

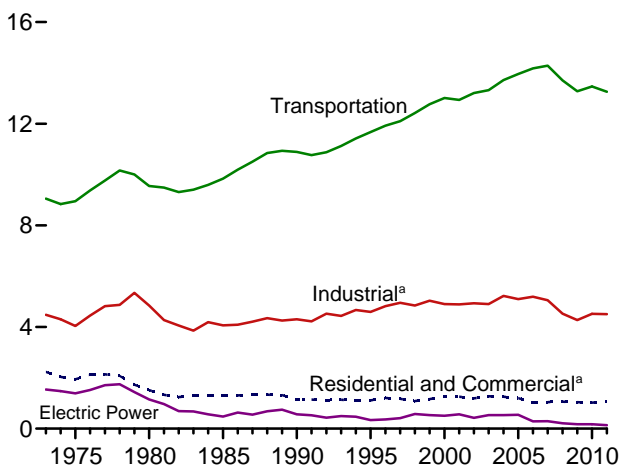
Notes: • Petroleum products supplied is an approximation of petroleum consumption and is synonymous with the term "petroleum consumption" in Tables 3.7a-3.8c. • See Note 7, "Petroleum Products Supplied and Petroleum Consumption," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Pages: • For all available data beginning in 1973, see <http://www.eia.gov/totalenergy/data/monthly/#petroleum>. • For related information, see <http://www.eia.gov/petroleum/>.

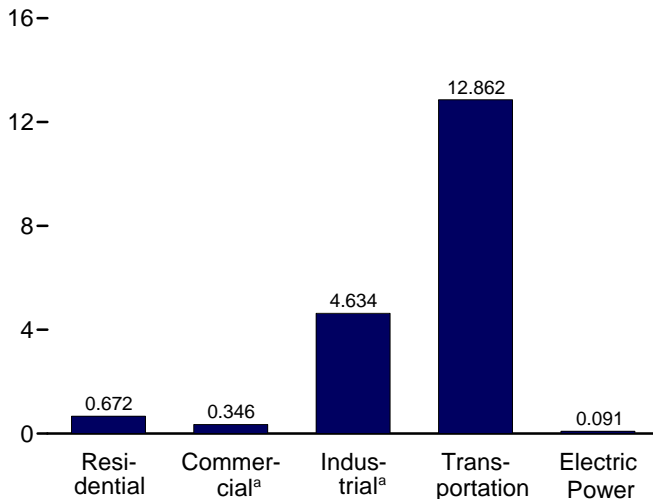
Sources: See end of section.

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

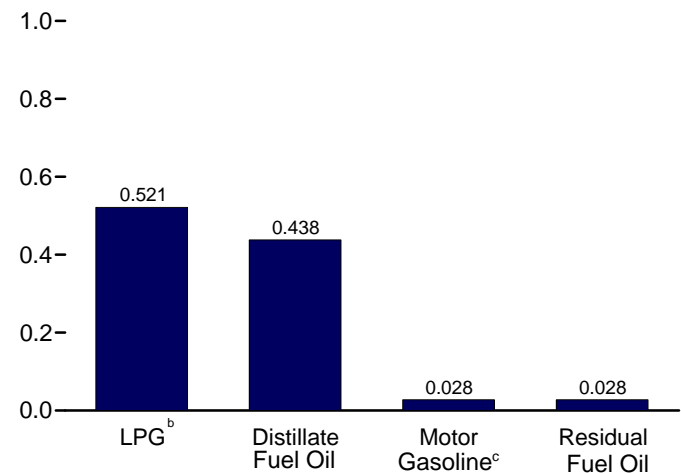
By Sector, 1973-2011



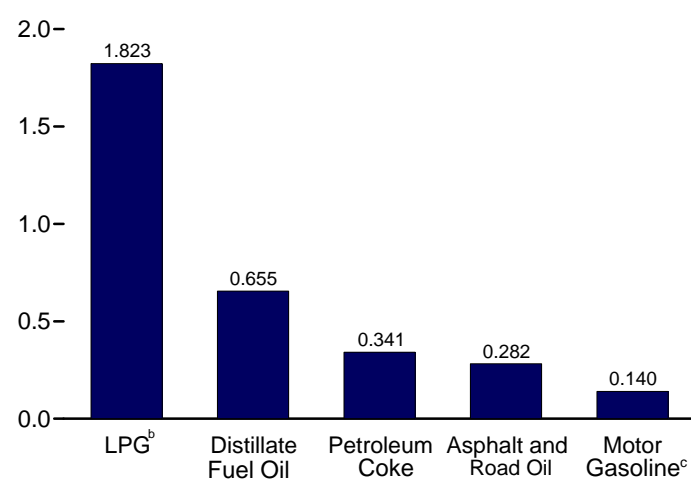
By Sector, November 2012



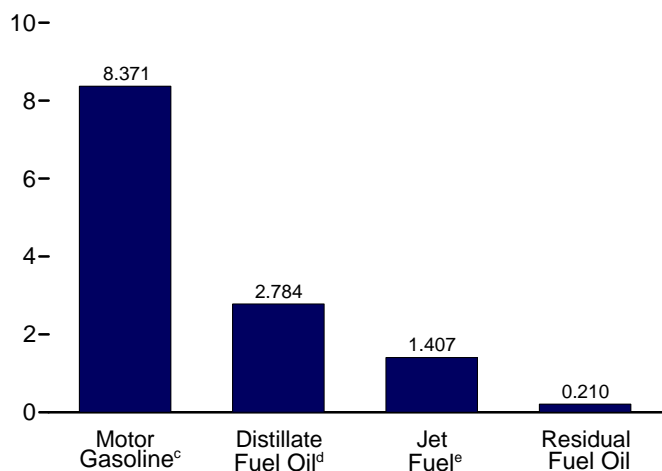
Residential and Commercial Sectors,<sup>a</sup> Selected Products, November 2012



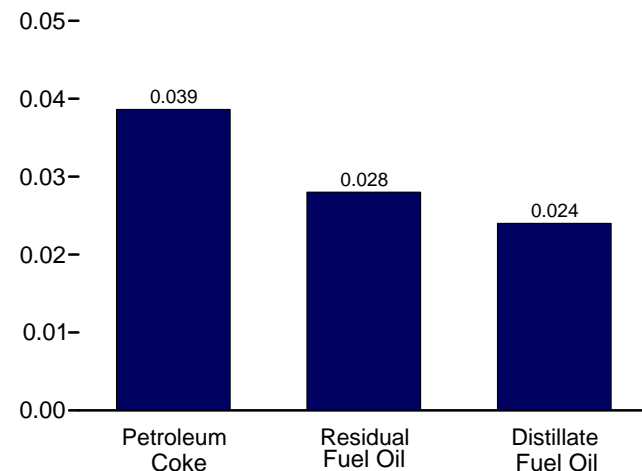
Industrial Sector,<sup>a</sup> Selected Products, November 2012



Transportation Sector, Selected Products, November 2012



Electric Power Sector, November 2012



<sup>a</sup> Includes combined-heat-and-power plants and a small number of electricity-only plants.

<sup>b</sup> Liquefied petroleum gases.

<sup>c</sup> Includes fuel ethanol blended into motor gasoline.

<sup>d</sup> Includes renewable diesel fuel (including biodiesel) blended into

distillate fuel oil.

<sup>e</sup> Includes kerosene-type jet fuel only.

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 <sup>a</sup>						
	Distillate Fuel Oil	Kero-sene	Liquefied Petroleum Gases	Total	Distillate Fuel Oil	Kero-sene	Liquefied Petroleum Gases	Motor Gasoline <sup>b</sup>	Petro-leum Coke	Residual Fuel Oil	Total
1973 Average .....	942	110	407	1,459	303	31	105	45	NA	290	774
1975 Average .....	850	78	365	1,293	276	24	92	46	NA	214	653
1980 Average .....	617	51	222	890	243	20	63	56	NA	245	626
1985 Average .....	514	77	224	815	297	16	68	50	NA	99	530
1990 Average .....	460	31	252	742	252	6	73	58	0	100	489
1995 Average .....	426	36	282	743	225	11	78	10	(s)	62	385
1996 Average .....	434	43	334	811	227	10	87	14	(s)	60	397
1997 Average .....	411	45	325	781	209	12	86	22	(s)	48	378
1998 Average .....	363	52	303	718	202	15	84	20	(s)	37	358
1999 Average .....	389	54	376	819	206	13	100	15	(s)	32	366
2000 Average .....	424	46	395	865	230	14	107	23	(s)	40	415
2001 Average .....	427	46	375	849	239	15	102	20	(s)	30	406
2002 Average .....	404	29	384	817	209	8	101	24	(s)	35	376
2003 Average .....	425	34	389	848	226	9	112	32	(s)	48	428
2004 Average .....	433	41	364	839	221	10	108	23	(s)	53	416
2005 Average .....	402	40	366	809	210	10	94	24	(s)	50	389
2006 Average .....	335	32	318	685	189	7	88	26	(s)	33	343
2007 Average .....	342	21	345	708	181	4	87	32	(s)	33	337
2008 Average .....	314	10	394	718	174	2	113	24	(s)	32	345
2009 Average .....	283	13	391	687	194	2	99	28	(s)	33	357
<b>2010</b> January .....	460	10	461	931	324	2	122	28	(s)	57	532
February .....	471	24	441	936	332	4	116	28	(s)	58	538
March .....	270	8	388	666	190	1	102	28	(s)	33	356
April .....	196	5	321	521	138	1	85	29	(s)	24	277
May .....	207	8	327	542	146	1	86	30	0	25	289
June .....	244	11	338	593	172	2	89	30	0	30	323
July .....	189	13	345	547	133	2	91	30	0	23	280
August .....	169	7	353	528	119	1	93	30	(s)	21	264
September .....	157	6	363	526	111	1	96	29	(s)	19	256
October .....	233	10	370	614	164	2	98	29	(s)	29	322
November .....	271	32	373	676	190	5	99	29	(s)	33	356
December .....	432	35	466	934	304	6	123	29	(s)	53	516
<b>Average .....</b>	<b>274</b>	<b>14</b>	<b>379</b>	<b>667</b>	<b>193</b>	<b>2</b>	<b>100</b>	<b>29</b>	<b>(s)</b>	<b>34</b>	<b>358</b>
<b>2011</b> January .....	400	13	480	893	281	2	127	27	(s)	43	481
February .....	419	35	440	895	295	6	116	28	(s)	45	490
March .....	286	19	420	725	201	3	111	28	(s)	31	375
April .....	197	6	356	559	139	1	94	28	0	21	283
May .....	130	(s)	362	492	91	(s)	96	29	0	14	230
June .....	202	3	353	558	142	1	93	29	0	22	287
July .....	180	6	355	542	127	1	94	29	0	19	270
August .....	246	4	366	616	174	1	97	29	0	26	326
September .....	270	5	357	632	190	1	94	28	0	29	342
October .....	293	1	388	682	206	(s)	102	28	0	31	368
November .....	336	4	417	757	236	1	110	28	(s)	36	411
December .....	433	9	456	898	305	1	120	28	(s)	46	502
<b>Average .....</b>	<b>282</b>	<b>9</b>	<b>396</b>	<b>686</b>	<b>198</b>	<b>1</b>	<b>105</b>	<b>28</b>	<b>(s)</b>	<b>30</b>	<b>363</b>
<b>2012</b> January .....	469	1	429	899	330	(s)	113	26	(s)	50	521
February .....	394	16	422	832	277	3	111	28	(s)	42	462
March .....	320	1	388	709	225	(s)	102	28	(s)	34	391
April .....	234	2	361	597	165	(s)	95	29	(s)	25	314
May .....	232	(s)	375	608	164	(s)	99	29	0	25	317
June .....	241	1	361	603	169	(s)	95	29	0	26	320
July .....	224	2	369	596	158	(s)	98	29	(s)	24	309
August .....	282	1	382	664	198	(s)	101	30	(s)	30	359
September .....	227	2	388	616	160	(s)	102	28	(s)	24	315
October .....	<sup>R</sup> 201	2	416	<sup>R</sup> 619	<sup>R</sup> 142	(s)	110	28	(s)	<sup>R</sup> 22	<sup>R</sup> 302
November .....	257	2	412	672	181	(s)	109	28	(s)	28	346
<b>11-Month Average ...</b>	<b>280</b>	<b>3</b>	<b>391</b>	<b>674</b>	<b>197</b>	<b>(s)</b>	<b>103</b>	<b>28</b>	<b>(s)</b>	<b>30</b>	<b>359</b>
<b>2011 11-Month Average ...</b>	<b>268</b>	<b>9</b>	<b>390</b>	<b>667</b>	<b>189</b>	<b>1</b>	<b>103</b>	<b>28</b>	<b>(s)</b>	<b>29</b>	<b>350</b>
<b>2010 11-Month Average ...</b>	<b>259</b>	<b>12</b>	<b>370</b>	<b>642</b>	<b>183</b>	<b>2</b>	<b>98</b>	<b>29</b>	<b>(s)</b>	<b>32</b>	<b>344</b>

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

<sup>b</sup> Finished motor gasoline. Beginning in 1993, also includes fuel ethanol blended into motor gasoline.

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

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

an approximation of petroleum consumption and is synonymous with the term "petroleum consumption" in Tables 3.7a-3.8c. • See Note 7, "Petroleum Products Supplied and Petroleum Consumption," at end of section.

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

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

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#petroleum> for all available data beginning in 1973.

Sources: See end of section.

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

	Industrial Sector <sup>a</sup>									
	Asphalt and Road Oil	Distillate Fuel Oil	Kerosene	Liquefied Petroleum Gases	Lubricants	Motor Gasoline <sup>b</sup>	Petroleum Coke	Residual Fuel Oil	Other <sup>c</sup>	Total
1973 Average	522	691	75	902	88	133	254	809	1,005	4,479
1975 Average	419	630	58	844	68	116	246	658	1,001	4,038
1980 Average	396	621	87	1,172	82	82	234	586	1,581	4,842
1985 Average	425	526	21	1,285	75	114	261	326	1,032	4,065
1990 Average	483	541	6	1,215	84	97	325	179	1,373	4,304
1995 Average	486	532	7	1,527	80	105	328	147	1,381	4,594
1996 Average	484	557	9	1,580	78	105	343	146	1,518	4,819
1997 Average	505	566	9	1,617	82	111	331	127	1,605	4,953
1998 Average	521	570	11	1,553	86	105	390	100	1,508	4,844
1999 Average	547	558	6	1,709	87	80	426	90	1,532	5,035
2000 Average	525	563	8	1,720	86	79	361	105	1,458	4,903
2001 Average	519	611	11	1,557	79	155	390	89	1,481	4,892
2002 Average	512	566	7	1,668	78	163	383	83	1,474	4,934
2003 Average	503	534	12	1,561	72	171	375	96	1,579	4,903
2004 Average	537	570	14	1,646	73	195	423	108	1,657	5,222
2005 Average	546	594	19	1,549	72	187	404	123	1,605	5,100
2006 Average	521	594	14	1,627	71	198	425	104	1,640	5,193
2007 Average	494	595	6	1,637	73	161	412	84	1,593	5,056
2008 Average	417	599	2	1,471	67	131	394	86	1,408	4,523
2009 Average	360	521	2	1,541	61	128	363	46	1,251	4,274
<b>2010</b> January	203	484	3	2,036	60	140	201	59	1,218	4,403
February	249	531	6	1,949	70	141	264	55	1,263	4,528
March	264	686	2	1,714	71	144	356	54	1,421	4,712
April	331	623	1	1,419	68	149	323	61	1,463	4,438
May	378	472	2	1,446	66	150	274	51	1,351	4,190
June	517	427	3	1,492	80	153	333	43	1,386	4,433
July	470	331	3	1,523	73	153	303	53	1,373	4,282
August	537	544	2	1,559	66	152	370	42	1,467	4,738
September	463	701	1	1,604	70	150	371	51	1,326	4,738
October	434	548	3	1,637	66	148	279	51	1,215	4,380
November	295	664	8	1,648	64	145	339	57	1,333	4,553
December	204	700	9	2,061	58	146	307	51	1,301	4,838
<b>Average</b>	<b>362</b>	<b>559</b>	<b>4</b>	<b>1,673</b>	<b>68</b>	<b>148</b>	<b>310</b>	<b>52</b>	<b>1,343</b>	<b>4,519</b>
<b>2011</b> January	221	715	3	2,123	64	137	275	62	1,244	4,844
February	248	586	9	1,946	62	141	218	59	1,185	4,455
March	282	764	5	1,856	77	144	266	48	1,405	4,847
April	311	562	2	1,573	70	144	302	49	1,301	4,314
May	357	555	(s)	1,600	63	145	359	49	1,082	4,209
June	454	572	1	1,561	64	149	309	50	1,213	4,372
July	465	307	2	1,570	61	148	287	32	1,363	4,235
August	545	529	1	1,618	70	146	388	34	1,311	4,643
September	462	557	1	1,579	64	143	276	51	1,299	4,432
October	423	587	(s)	1,715	53	142	343	42	1,239	4,544
November	297	705	1	1,842	64	140	336	43	1,391	4,819
December	187	454	2	2,014	57	142	173	53	1,228	4,311
<b>Average</b>	<b>355</b>	<b>574</b>	<b>2</b>	<b>1,749</b>	<b>64</b>	<b>144</b>	<b>295</b>	<b>48</b>	<b>1,272</b>	<b>4,503</b>
<b>2012</b> January	216	552	(s)	1,896	66	134	303	41	1,349	4,558
February	218	723	4	1,864	71	141	242	39	1,306	4,609
March	236	498	(s)	1,715	57	142	292	41	1,163	4,145
April	329	490	1	1,594	63	145	311	41	1,166	4,139
May	378	468	(s)	1,657	59	148	343	29	1,224	4,307
June	454	378	(s)	1,596	55	148	336	35	1,214	4,217
July	461	253	(s)	1,632	54	145	298	40	1,298	4,181
August	485	305	(s)	1,687	57	150	368	34	1,320	4,406
September	444	434	(s)	1,713	53	141	314	30	1,090	4,218
October	369	R 580	1	1,839	57	143	283	27	1,361	R 4,659
November	282	655	1	1,823	60	140	341	29	1,303	4,634
<b>11-Month Average</b>	<b>353</b>	<b>484</b>	<b>1</b>	<b>1,728</b>	<b>59</b>	<b>143</b>	<b>312</b>	<b>35</b>	<b>1,255</b>	<b>4,370</b>
<b>2011 11-Month Average</b>	<b>370</b>	<b>585</b>	<b>2</b>	<b>1,725</b>	<b>65</b>	<b>144</b>	<b>306</b>	<b>47</b>	<b>1,276</b>	<b>4,520</b>
<b>2010 11-Month Average</b>	<b>377</b>	<b>546</b>	<b>3</b>	<b>1,637</b>	<b>68</b>	<b>148</b>	<b>310</b>	<b>52</b>	<b>1,347</b>	<b>4,490</b>

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

<sup>b</sup> Finished motor gasoline. Beginning in 1993, also includes fuel ethanol blended into motor gasoline.

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

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

day.

Notes: • Data are estimates. • For total petroleum consumption by all sectors, see petroleum products supplied data in Table 3.5. Petroleum products supplied is an approximation of petroleum consumption and is synonymous with the term "petroleum consumption" in Tables 3.7a-3.8c. • See Note 7, "Petroleum Products Supplied and Petroleum Consumption," at end of section.

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

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#petroleum> for all available data beginning in 1973.

Sources: See end of section.



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

	Transportation Sector								Electric Power Sector <sup>a</sup>			
	Aviation Gasoline	Distillate Fuel Oil <sup>b</sup>	Jet Fuel <sup>c</sup>	Liquefied Petroleum Gases	Lubricants	Motor Gasoline <sup>d</sup>	Residual Fuel Oil	Total	Distillate Fuel Oil <sup>e</sup>	Petroleum Coke	Residual Fuel Oil <sup>f</sup>	Total
1973 Average	45	1,045	1,042	35	74	6,496	317	9,054	129	7	1,406	1,542
1975 Average	39	998	992	31	70	6,512	310	8,951	107	1	1,280	1,388
1980 Average	35	1,311	1,062	13	77	6,441	608	9,546	79	2	1,069	1,151
1985 Average	27	1,491	1,218	21	71	6,667	342	9,838	40	3	435	478
1990 Average	24	1,722	1,522	16	80	7,080	443	10,888	45	14	507	566
1995 Average	21	1,973	1,514	13	76	7,674	397	11,668	51	37	247	334
1996 Average	20	2,096	1,578	11	73	7,772	370	11,921	51	36	273	360
1997 Average	22	2,198	1,599	10	78	7,883	310	12,099	52	46	311	410
1998 Average	19	2,263	1,622	13	81	8,128	294	12,420	64	56	456	576
1999 Average	21	2,352	1,673	10	82	8,336	290	12,765	66	51	418	535
2000 Average	20	2,422	1,725	8	81	8,370	386	13,012	82	45	378	505
2001 Average	19	2,489	1,655	10	74	8,435	255	12,938	80	47	437	564
2002 Average	18	2,536	1,614	10	73	8,662	295	13,208	60	80	287	427
2003 Average	16	2,665	1,578	12	68	8,733	249	13,321	76	79	379	534
2004 Average	17	2,783	1,630	14	69	8,887	321	13,720	52	101	382	535
2005 Average	19	2,858	1,679	20	68	8,948	365	13,957	54	111	382	547
2006 Average	18	3,017	1,633	20	67	9,029	395	14,178	35	97	157	289
2007 Average	17	3,037	1,622	16	69	9,093	433	14,287	42	78	173	293
2008 Average	15	2,824	1,539	29	64	8,834	400	13,704	34	70	104	209
2009 Average	14	2,600	1,393	20	57	8,840	353	13,279	33	63	79	175
2010 January	10	2,353	1,344	26	57	8,352	407	12,547	79	67	93	239
February	10	2,490	1,343	24	66	8,411	364	12,709	30	69	38	138
March	14	2,663	1,443	22	67	8,620	403	13,231	24	69	41	134
April	17	2,779	1,410	18	64	8,929	465	13,682	23	62	40	125
May	15	2,781	1,446	18	62	8,983	377	13,681	33	64	66	164
June	18	2,858	1,543	19	75	9,128	322	13,963	41	78	105	224
July	20	2,848	1,494	19	69	9,118	399	13,966	42	81	120	244
August	14	2,963	1,486	20	63	9,074	315	13,934	34	63	98	196
September	20	2,888	1,457	20	66	8,933	381	13,766	29	62	61	153
October	15	2,803	1,430	21	62	8,839	371	13,540	25	56	37	118
November	11	2,719	1,396	21	60	8,643	427	13,277	30	50	35	114
December	12	2,679	1,383	26	55	8,736	355	13,245	60	63	67	189
Average	15	2,737	1,432	21	64	8,816	382	13,466	38	65	67	170
2011 January	11	2,520	1,346	27	60	8,206	421	12,591	43	85	56	184
February	14	2,580	1,352	24	59	8,435	425	12,889	33	75	37	144
March	18	2,765	1,385	23	73	8,626	346	13,235	29	82	37	147
April	10	2,823	1,457	20	66	8,623	360	13,360	33	54	46	133
May	18	2,892	1,424	20	59	8,644	363	13,420	31	55	41	128
June	17	3,000	1,540	20	61	8,889	364	13,891	32	70	43	145
July	19	2,914	1,473	20	58	8,854	226	13,562	36	81	52	169
August	18	3,034	1,554	20	67	8,750	243	13,686	26	73	44	143
September	13	2,895	1,416	20	61	8,572	378	13,355	24	73	33	130
October	16	2,894	1,384	22	50	8,479	300	13,143	24	52	32	107
November	12	2,807	1,416	23	60	8,369	308	12,996	25	40	32	97
December	10	2,633	1,353	25	54	8,513	389	12,977	28	56	31	116
Average	15	2,814	1,425	22	61	8,581	343	13,260	30	66	41	137
2012 January	12	2,445	1,313	24	62	8,026	295	12,179	26	63	34	123
February	11	2,562	1,350	23	67	8,452	285	12,752	23	55	27	105
March	14	2,644	1,382	22	54	8,463	311	12,889	19	31	29	79
April	14	2,790	1,359	20	59	8,644	314	13,200	26	27	28	80
May	17	2,852	1,409	21	56	8,819	212	13,385	29	33	29	91
June	13	2,912	1,545	20	52	8,857	265	13,664	29	37	45	111
July	20	2,889	1,468	20	51	8,646	301	13,395	28	40	53	121
August	13	2,931	1,469	21	54	8,955	251	13,694	23	41	39	102
September	15	2,839	1,379	22	50	8,407	219	12,930	22	43	30	94
October	14	<sup>R</sup> 2,890	1,341	23	54	8,529	198	<sup>R</sup> 13,049	24	36	32	92
November	11	2,784	1,407	23	56	8,371	210	12,862	24	39	28	91
11-Month Average	14	2,777	1,402	22	56	8,562	260	13,092	25	40	34	99
2011 11-Month Average	15	2,831	1,432	22	61	8,587	338	13,287	30	67	41	139
2010 11-Month Average	15	2,742	1,436	21	65	8,823	385	13,486	36	66	67	169

<sup>a</sup> 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.

<sup>b</sup> Beginning in 2009, includes renewable diesel fuel (including biodiesel) blended into distillate fuel oil.

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

<sup>d</sup> Finished motor gasoline. Beginning in 1993, also includes fuel ethanol blended into motor gasoline.

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

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

R=Revised.

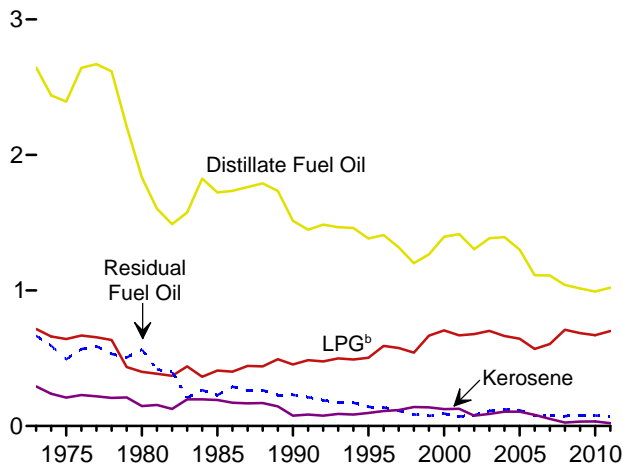
Notes: • Transportation sector data are estimates. • For total petroleum consumption by all sectors, see petroleum products supplied data in Table 3.5. Petroleum products supplied is an approximation of petroleum consumption and is synonymous with the term "petroleum consumption" in Tables 3.7a–3.8c. • See Note 7, "Petroleum Products Supplied and Petroleum Consumption," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#petroleum> for all available data beginning in 1973.

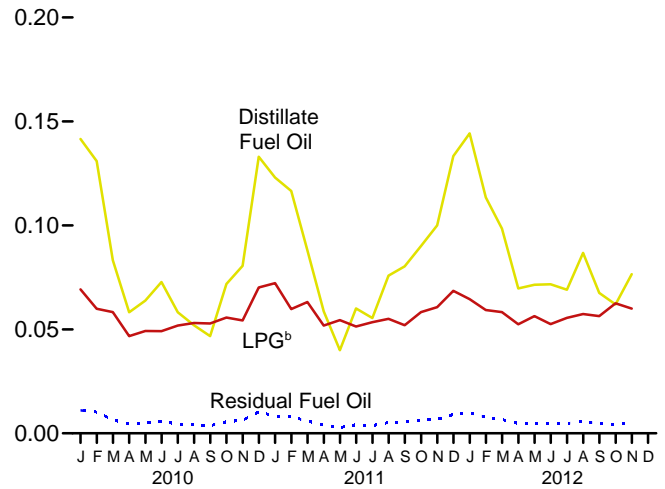
Sources: See end of section.

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

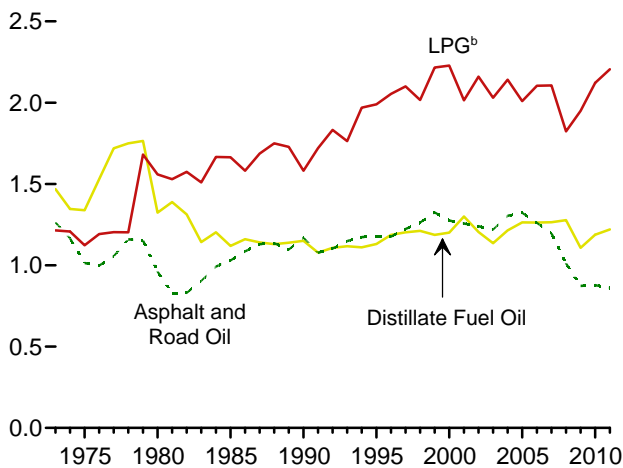
Residential and Commercial Sectors,<sup>a</sup> 1973-2011



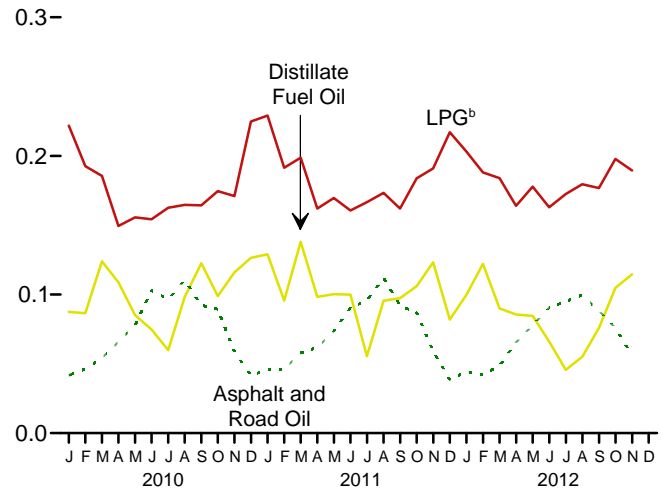
Residential and Commercial Sectors,<sup>a</sup> Monthly



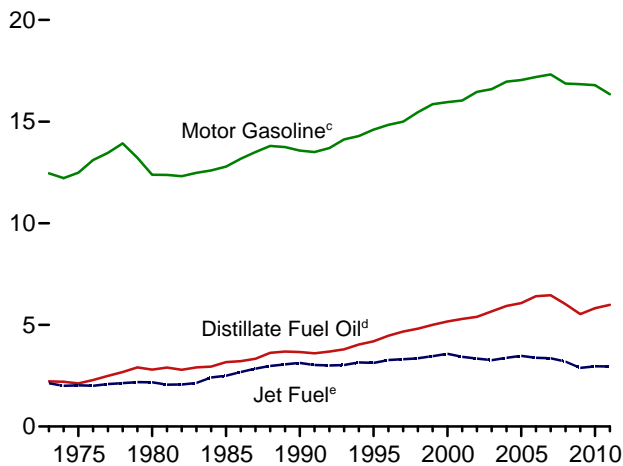
Industrial Sector,<sup>a</sup> 1973-2011



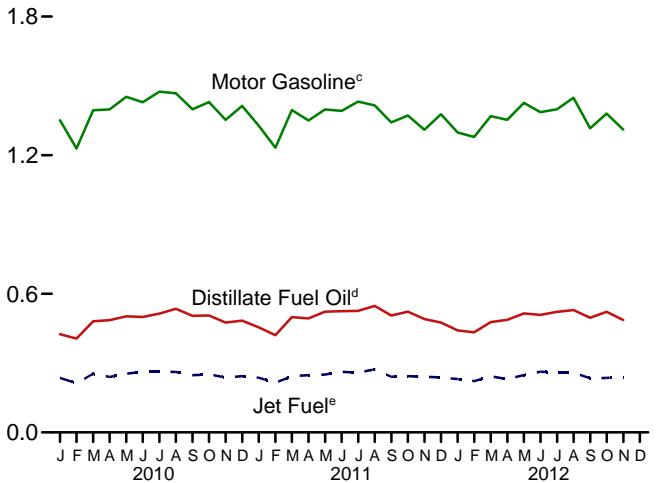
Industrial Sector,<sup>a</sup> Monthly



Transportation Sector, 1973-2011



Transportation Sector, Monthly



<sup>a</sup> Includes combined-heat-and-power plants and a small number of electricity-only plants.

<sup>b</sup> Liquefied petroleum gases.

<sup>c</sup> Beginning in 1993, includes fuel ethanol blended into motor gasoline.

<sup>d</sup> Beginning in 2009, includes renewable diesel fuel (including bio-

diesel) blended into distillate fuel oil.

<sup>e</sup> 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.

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

	Residential Sector				Commercial Sector <sup>a</sup>						
	Distillate Fuel Oil	Kerosene	Liquefied Petroleum Gases	Total	Distillate Fuel Oil	Kerosene	Liquefied Petroleum Gases	Motor Gasoline <sup>b</sup>	Petroleum Coke	Residual Fuel Oil	Total
<b>1973 Total</b> .....	<b>2,003</b>	<b>227</b>	<b>570</b>	<b>2,800</b>	<b>644</b>	<b>65</b>	<b>147</b>	<b>87</b>	<b>NA</b>	<b>665</b>	<b>1,607</b>
<b>1975 Total</b> .....	<b>1,807</b>	<b>161</b>	<b>512</b>	<b>2,479</b>	<b>587</b>	<b>49</b>	<b>129</b>	<b>89</b>	<b>NA</b>	<b>492</b>	<b>1,346</b>
<b>1980 Total</b> .....	<b>1,316</b>	<b>107</b>	<b>311</b>	<b>1,734</b>	<b>518</b>	<b>41</b>	<b>88</b>	<b>107</b>	<b>NA</b>	<b>565</b>	<b>1,318</b>
<b>1985 Total</b> .....	<b>1,092</b>	<b>159</b>	<b>314</b>	<b>1,565</b>	<b>631</b>	<b>33</b>	<b>95</b>	<b>96</b>	<b>NA</b>	<b>228</b>	<b>1,083</b>
<b>1990 Total</b> .....	<b>978</b>	<b>64</b>	<b>352</b>	<b>1,394</b>	<b>536</b>	<b>12</b>	<b>102</b>	<b>111</b>	<b>0</b>	<b>230</b>	<b>991</b>
<b>1995 Total</b> .....	<b>905</b>	<b>74</b>	<b>395</b>	<b>1,374</b>	<b>479</b>	<b>22</b>	<b>109</b>	<b>18</b>	<b>(s)</b>	<b>141</b>	<b>769</b>
<b>1996 Total</b> .....	<b>926</b>	<b>89</b>	<b>469</b>	<b>1,484</b>	<b>483</b>	<b>21</b>	<b>122</b>	<b>27</b>	<b>(s)</b>	<b>137</b>	<b>790</b>
<b>1997 Total</b> .....	<b>874</b>	<b>93</b>	<b>455</b>	<b>1,422</b>	<b>444</b>	<b>25</b>	<b>120</b>	<b>43</b>	<b>(s)</b>	<b>111</b>	<b>743</b>
<b>1998 Total</b> .....	<b>772</b>	<b>108</b>	<b>424</b>	<b>1,304</b>	<b>429</b>	<b>31</b>	<b>118</b>	<b>39</b>	<b>(s)</b>	<b>85</b>	<b>702</b>
<b>1999 Total</b> .....	<b>828</b>	<b>111</b>	<b>526</b>	<b>1,465</b>	<b>438</b>	<b>27</b>	<b>140</b>	<b>28</b>	<b>(s)</b>	<b>73</b>	<b>707</b>
<b>2000 Total</b> .....	<b>905</b>	<b>95</b>	<b>555</b>	<b>1,554</b>	<b>491</b>	<b>30</b>	<b>150</b>	<b>45</b>	<b>(s)</b>	<b>92</b>	<b>807</b>
<b>2001 Total</b> .....	<b>908</b>	<b>95</b>	<b>526</b>	<b>1,529</b>	<b>508</b>	<b>31</b>	<b>143</b>	<b>37</b>	<b>(s)</b>	<b>70</b>	<b>790</b>
<b>2002 Total</b> .....	<b>860</b>	<b>60</b>	<b>537</b>	<b>1,457</b>	<b>444</b>	<b>16</b>	<b>141</b>	<b>45</b>	<b>(s)</b>	<b>80</b>	<b>726</b>
<b>2003 Total</b> .....	<b>905</b>	<b>70</b>	<b>544</b>	<b>1,519</b>	<b>481</b>	<b>19</b>	<b>157</b>	<b>60</b>	<b>(s)</b>	<b>111</b>	<b>828</b>
<b>2004 Total</b> .....	<b>924</b>	<b>85</b>	<b>512</b>	<b>1,520</b>	<b>470</b>	<b>20</b>	<b>152</b>	<b>45</b>	<b>(s)</b>	<b>122</b>	<b>810</b>
<b>2005 Total</b> .....	<b>854</b>	<b>84</b>	<b>513</b>	<b>1,451</b>	<b>447</b>	<b>22</b>	<b>131</b>	<b>46</b>	<b>(s)</b>	<b>116</b>	<b>762</b>
<b>2006 Total</b> .....	<b>712</b>	<b>66</b>	<b>446</b>	<b>1,224</b>	<b>401</b>	<b>15</b>	<b>123</b>	<b>49</b>	<b>(s)</b>	<b>75</b>	<b>664</b>
<b>2007 Total</b> .....	<b>726</b>	<b>44</b>	<b>484</b>	<b>1,254</b>	<b>384</b>	<b>9</b>	<b>121</b>	<b>61</b>	<b>(s)</b>	<b>75</b>	<b>651</b>
<b>2008 Total</b> .....	<b>669</b>	<b>21</b>	<b>553</b>	<b>1,243</b>	<b>372</b>	<b>4</b>	<b>158</b>	<b>46</b>	<b>(s)</b>	<b>73</b>	<b>653</b>
<b>2009 Total</b> .....	<b>602</b>	<b>28</b>	<b>547</b>	<b>1,176</b>	<b>413</b>	<b>4</b>	<b>139</b>	<b>53</b>	<b>(s)</b>	<b>76</b>	<b>685</b>
<b>2010 January</b> .....	<b>83</b>	<b>2</b>	<b>55</b>	<b>140</b>	<b>58</b>	<b>(s)</b>	<b>14</b>	<b>4</b>	<b>(s)</b>	<b>11</b>	<b>89</b>
February .....	77	4	47	128	54	1	13	4	(s)	10	82
March .....	49	1	46	96	34	(s)	12	5	(s)	6	58
April .....	34	1	37	72	24	(s)	10	5	(s)	5	43
May .....	37	1	39	78	26	(s)	10	5	0	5	47
June .....	43	2	39	83	30	(s)	10	5	0	6	51
July .....	34	2	41	78	24	(s)	11	5	0	5	45
August .....	31	1	42	74	21	(s)	11	5	(s)	4	42
September .....	27	1	42	70	19	(s)	11	5	(s)	4	39
October .....	42	2	44	88	30	(s)	12	5	(s)	6	52
November .....	47	6	43	96	33	1	11	4	(s)	6	56
December .....	78	6	55	140	55	1	15	5	(s)	10	86
<b>Total</b> .....	<b>583</b>	<b>29</b>	<b>530</b>	<b>1,142</b>	<b>410</b>	<b>5</b>	<b>140</b>	<b>55</b>	<b>(s)</b>	<b>77</b>	<b>688</b>
<b>2011 January</b> .....	<b>72</b>	<b>2</b>	<b>57</b>	<b>132</b>	<b>51</b>	<b>(s)</b>	<b>15</b>	<b>4</b>	<b>(s)</b>	<b>8</b>	<b>79</b>
February .....	68	6	47	121	48	1	12	4	(s)	8	74
March .....	52	3	50	105	36	1	13	5	(s)	6	61
April .....	34	1	41	76	24	(s)	11	4	0	4	44
May .....	23	(s)	43	67	17	(s)	11	5	0	3	35
June .....	35	1	41	76	25	(s)	11	5	0	4	44
July .....	33	1	42	76	23	(s)	11	5	0	4	43
August .....	45	1	44	89	31	(s)	12	5	0	5	53
September .....	47	1	41	89	33	(s)	11	4	0	5	54
October .....	53	(s)	46	99	37	(s)	12	5	0	6	60
November .....	59	1	48	107	41	(s)	13	4	(s)	7	65
December .....	78	2	54	134	55	(s)	14	5	(s)	9	83
<b>Total</b> .....	<b>599</b>	<b>18</b>	<b>554</b>	<b>1,171</b>	<b>422</b>	<b>3</b>	<b>146</b>	<b>54</b>	<b>(s)</b>	<b>69</b>	<b>695</b>
<b>2012 January</b> .....	<b>85</b>	<b>(s)</b>	<b>51</b>	<b>136</b>	<b>60</b>	<b>(s)</b>	<b>13</b>	<b>4</b>	<b>(s)</b>	<b>10</b>	<b>87</b>
February .....	67	3	47	116	47	(s)	12	4	(s)	8	72
March .....	58	(s)	46	104	41	(s)	12	5	(s)	7	64
April .....	41	(s)	41	83	29	(s)	11	4	(s)	5	49
May .....	42	(s)	45	87	30	(s)	12	5	0	5	51
June .....	42	(s)	42	84	30	(s)	11	5	0	5	50
July .....	41	(s)	44	85	29	(s)	12	5	(s)	5	50
August .....	51	(s)	45	96	36	(s)	12	5	(s)	6	59
September .....	40	(s)	45	85	28	(s)	12	4	(s)	5	49
October .....	36	(s)	49	86	<sup>R</sup> 26	(s)	13	5	(s)	4	<sup>R</sup> 48
November .....	45	(s)	47	93	32	(s)	13	4	(s)	5	54
<b>11-Month Total</b> .....	<b>546</b>	<b>5</b>	<b>503</b>	<b>1,054</b>	<b>385</b>	<b>1</b>	<b>133</b>	<b>49</b>	<b>(s)</b>	<b>63</b>	<b>631</b>
<b>2011 11-Month Total</b> .....	<b>521</b>	<b>16</b>	<b>500</b>	<b>1,037</b>	<b>367</b>	<b>3</b>	<b>132</b>	<b>49</b>	<b>(s)</b>	<b>60</b>	<b>612</b>
<b>2010 11-Month Total</b> .....	<b>505</b>	<b>23</b>	<b>475</b>	<b>1,002</b>	<b>355</b>	<b>4</b>	<b>125</b>	<b>51</b>	<b>(s)</b>	<b>67</b>	<b>602</b>

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

<sup>b</sup> Finished motor gasoline. Beginning in 1993, also includes fuel ethanol blended into motor gasoline.

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

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

3.6. Petroleum products supplied is an approximation of petroleum consumption and is synonymous with the term "petroleum consumption" in Tables 3.7a-3.8c. • See Note 7, "Petroleum Products Supplied and Petroleum Consumption," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#petroleum> for all available data beginning in 1973.

Sources: See end of section.

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

	Industrial Sector <sup>a</sup>									
	Asphalt and Road Oil	Distillate Fuel Oil	Kerosene	Liquefied Petroleum Gases	Lubricants	Motor Gasoline <sup>b</sup>	Petroleum Coke	Residual Fuel Oil	Other <sup>c</sup>	Total
<b>1973 Total</b> .....	1,264	1,469	156	1,215	195	255	558	1,858	2,114	9,083
<b>1975 Total</b> .....	1,014	1,339	119	1,123	149	223	540	1,509	2,109	8,127
<b>1980 Total</b> .....	962	1,324	181	1,559	182	158	516	1,349	3,278	9,509
<b>1985 Total</b> .....	1,029	1,119	44	1,664	166	218	575	748	2,152	7,714
<b>1990 Total</b> .....	1,170	1,150	12	1,582	186	185	714	411	2,839	8,251
<b>1995 Total</b> .....	1,178	1,131	15	1,990	178	200	721	337	2,837	8,588
<b>1996 Total</b> .....	1,176	1,187	18	2,054	173	200	757	335	3,121	9,020
<b>1997 Total</b> .....	1,224	1,203	19	2,100	182	212	727	291	3,298	9,256
<b>1998 Total</b> .....	1,263	1,211	22	2,016	191	199	858	230	3,093	9,083
<b>1999 Total</b> .....	1,324	1,187	13	2,217	193	152	936	207	3,129	9,357
<b>2000 Total</b> .....	1,276	1,200	16	2,228	190	150	796	241	2,979	9,076
<b>2001 Total</b> .....	1,257	1,300	23	2,014	174	295	858	203	3,056	9,181
<b>2002 Total</b> .....	1,240	1,204	14	2,160	172	309	842	190	3,040	9,171
<b>2003 Total</b> .....	1,220	1,136	24	2,030	159	324	825	220	3,264	9,202
<b>2004 Total</b> .....	1,304	1,214	28	2,141	161	372	934	249	3,428	9,831
<b>2005 Total</b> .....	1,323	1,264	39	2,009	160	356	889	281	3,318	9,640
<b>2006 Total</b> .....	1,261	1,263	30	2,104	156	376	934	239	3,416	9,780
<b>2007 Total</b> .....	1,197	1,265	13	2,106	161	306	906	193	3,313	9,461
<b>2008 Total</b> .....	1,012	1,277	4	1,823	150	250	868	198	2,941	8,523
<b>2009 Total</b> .....	873	1,107	4	1,950	135	244	799	106	2,611	7,829
<b>2010</b> .....										
January .....	42	87	(s)	222	11	23	38	11	215	650
February .....	46	87	1	193	12	21	45	10	202	615
March .....	54	124	(s)	186	13	23	67	11	252	730
April .....	66	109	(s)	149	12	23	58	11	251	681
May .....	78	85	(s)	156	12	24	51	10	240	657
June .....	103	75	(s)	154	14	24	60	8	237	676
July .....	97	60	1	163	14	25	57	10	242	667
August .....	110	98	(s)	165	12	25	69	8	259	747
September .....	92	123	(s)	164	13	23	67	10	227	719
October .....	89	99	(s)	175	12	24	52	10	215	676
November .....	59	116	1	171	12	23	61	11	227	680
December .....	42	126	2	225	11	24	57	10	233	729
<b>Total</b> .....	<b>878</b>	<b>1,188</b>	<b>7</b>	<b>2,121</b>	<b>149</b>	<b>281</b>	<b>682</b>	<b>120</b>	<b>2,800</b>	<b>8,227</b>
<b>2011</b> .....										
January .....	45	129	1	229	12	22	51	12	227	729
February .....	46	96	1	191	11	21	37	10	190	603
March .....	58	138	1	199	14	23	50	9	250	743
April .....	62	98	(s)	162	13	23	55	9	224	646
May .....	73	100	(s)	170	12	23	67	10	194	649
June .....	90	100	(s)	161	12	23	56	9	209	660
July .....	96	55	(s)	167	11	24	54	6	245	658
August .....	112	96	(s)	173	13	24	73	7	234	731
September .....	92	97	(s)	162	12	22	50	10	224	669
October .....	87	106	(s)	184	10	23	64	8	220	702
November .....	59	123	(s)	191	12	22	61	8	239	715
December .....	38	82	(s)	217	11	23	32	10	220	634
<b>Total</b> .....	<b>859</b>	<b>1,221</b>	<b>4</b>	<b>2,205</b>	<b>142</b>	<b>274</b>	<b>648</b>	<b>109</b>	<b>2,676</b>	<b>8,139</b>
<b>2012</b> .....										
January .....	44	100	(s)	203	12	22	57	8	238	684
February .....	42	122	1	188	13	21	42	7	219	655
March .....	49	90	(s)	184	11	23	55	8	209	628
April .....	65	86	(s)	164	11	23	56	8	201	614
May .....	78	85	(s)	178	11	24	64	6	217	662
June .....	90	66	(s)	163	10	23	61	7	211	631
July .....	95	46	(s)	172	10	23	56	8	232	642
August .....	100	55	(s)	180	11	24	69	7	233	678
September .....	88	76	(s)	177	10	22	57	6	190	625
October .....	76	105	(s)	198	11	23	53	5	241	712
November .....	56	115	(s)	189	11	22	62	5	225	685
<b>11-Month Total</b> .....	<b>784</b>	<b>944</b>	<b>1</b>	<b>1,996</b>	<b>120</b>	<b>250</b>	<b>630</b>	<b>74</b>	<b>2,417</b>	<b>7,216</b>
<b>2011 11-Month Total</b> .....	<b>821</b>	<b>1,139</b>	<b>4</b>	<b>1,988</b>	<b>131</b>	<b>250</b>	<b>616</b>	<b>99</b>	<b>2,456</b>	<b>7,505</b>
<b>2010 11-Month Total</b> .....	<b>836</b>	<b>1,062</b>	<b>6</b>	<b>1,897</b>	<b>139</b>	<b>257</b>	<b>624</b>	<b>110</b>	<b>2,567</b>	<b>7,498</b>

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

<sup>b</sup> Finished motor gasoline. Beginning in 1993, also includes fuel ethanol blended into motor gasoline.

<sup>c</sup> 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.  
(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 7, "Petroleum Products Supplied and Petroleum Consumption," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#petroleum> for all available 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 <sup>a</sup>				
	Aviation Gasoline	Distillate Fuel Oil <sup>b</sup>	Jet Fuel <sup>c</sup>	Liquefied Petroleum Gases	Lubricants	Motor Gasoline <sup>d</sup>	Residual Fuel Oil	Total	Distillate Fuel Oil <sup>e</sup>	Petroleum Coke	Residual Fuel Oil <sup>f</sup>	Total
<b>1973 Total</b> .....	83	2,222	2,131	49	163	12,455	727	17,832	273	15	3,226	3,515
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
1996 Total .....	37	4,469	3,274	16	163	14,837	851	23,648	109	80	628	817
1997 Total .....	40	4,672	3,308	14	172	14,999	712	23,918	111	102	715	927
1998 Total .....	35	4,812	3,357	18	180	15,463	674	24,538	136	124	1,047	1,306
1999 Total .....	39	5,001	3,462	14	182	15,855	665	25,219	140	112	959	1,211
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	5,666	3,265	17	150	16,597	571	26,297	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	6,020	3,193	40	141	16,872	920	27,214	73	154	240	468
2009 Total .....	27	5,528	2,883	28	127	16,837	810	26,240	70	139	181	390
<b>2010</b> January .....	2	425	236	3	11	1,351	79	2,107	14	12	18	45
February .....	1	406	213	3	11	1,229	64	1,928	5	12	7	23
March .....	2	481	254	3	13	1,394	79	2,225	4	13	8	25
April .....	3	486	240	2	12	1,398	88	2,227	4	11	8	23
May .....	2	502	254	2	12	1,453	73	2,299	6	12	13	31
June .....	3	499	263	2	14	1,429	61	2,270	7	14	20	41
July .....	3	514	263	2	13	1,475	78	2,348	8	15	23	46
August .....	2	535	261	2	12	1,468	61	2,342	6	12	19	37
September .....	3	505	248	2	12	1,398	72	2,240	5	11	12	28
October .....	2	506	251	2	12	1,430	72	2,276	4	10	7	22
November .....	2	475	238	2	11	1,353	80	2,161	5	9	7	21
December .....	2	484	243	3	10	1,413	69	2,224	11	12	13	36
<b>Total</b> .....	27	5,818	2,963	29	141	16,791	877	26,646	80	144	154	378
<b>2011</b> January .....	2	455	237	3	11	1,327	82	2,117	8	16	11	35
February .....	2	421	215	3	10	1,232	75	1,957	5	13	6	24
March .....	3	499	243	3	14	1,395	67	2,225	5	15	7	28
April .....	2	493	248	2	12	1,350	68	2,175	6	10	9	24
May .....	3	522	250	2	11	1,398	71	2,258	6	10	8	24
June .....	3	524	262	2	11	1,391	69	2,262	6	13	8	26
July .....	3	526	259	2	11	1,432	44	2,277	7	15	10	32
August .....	3	548	273	2	13	1,415	47	2,301	5	14	9	27
September .....	2	506	241	2	11	1,342	71	2,175	4	13	6	24
October .....	2	523	243	3	9	1,371	58	2,210	4	10	6	20
November .....	2	491	241	3	11	1,310	58	2,115	4	7	6	18
December .....	2	475	238	3	10	1,377	76	2,181	5	11	6	22
<b>Total</b> .....	27	5,983	2,950	31	134	16,343	787	26,254	64	146	93	303
<b>2012</b> January .....	2	442	231	3	12	1,298	58	2,045	5	12	7	23
February .....	2	433	222	3	12	1,279	52	2,002	4	10	5	18
March .....	2	477	243	3	10	1,369	61	2,165	3	6	6	15
April .....	2	488	231	2	11	1,353	59	2,146	4	5	5	15
May .....	3	515	248	2	11	1,427	41	2,246	5	6	6	17
June .....	2	509	263	2	9	1,387	50	2,222	5	7	9	20
July .....	3	522	258	2	10	1,399	59	2,252	5	7	10	23
August .....	2	529	258	3	10	1,449	49	2,300	4	8	8	19
September .....	2	496	235	2	9	1,316	41	2,102	4	8	6	17
October .....	2	522	236	3	10	1,380	39	2,191	4	7	6	17
November .....	2	487	239	3	10	1,310	40	2,090	4	7	5	16
<b>11-Month Total</b> .....	24	5,419	2,663	28	114	14,966	548	23,760	48	81	72	201
<b>2011 11-Month Total</b> .....	25	5,508	2,712	28	124	14,966	711	24,073	59	135	87	281
<b>2010 11-Month Total</b> .....	25	5,335	2,720	26	131	15,378	807	24,422	70	132	141	343

<sup>a</sup> 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.

<sup>b</sup> Beginning in 2009, includes renewable diesel fuel (including biodiesel) blended into distillate fuel oil.

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

<sup>d</sup> Finished motor gasoline. Beginning in 1993, also includes fuel ethanol blended into motor gasoline.

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

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

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 7, "Petroleum Products Supplied and Petroleum Consumption," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#petroleum> for all available data beginning in 1973.

Sources: See end of section.

## Petroleum

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

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

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

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

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

**Note 3. Distillate and Residual Fuel Oils.** The requirement to report crude oil in pipelines or burned on leases as either distillate or residual fuel oil was eliminated. Prior to January 1981, the refinery input of unfinished oils typically exceeded the available supply of unfinished oils.

That discrepancy was assumed to be due to the redesignation of distillate and residual fuel oils received as such but used as unfinished oil inputs by the receiving refinery. The imbalance between supply and disposition of unfinished oils would then be subtracted from the production of distillate and residual fuel oils. Two-thirds of that difference was subtracted from distillate and one-third from residual. Beginning in January 1981, EIA modified its survey forms to account for redesignated product and discontinued the above-mentioned adjustment.

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

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

Crude Oil: 1982—645 (Total) and 351 (Non-SPR).

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

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

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

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

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

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

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

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

In January 1984, changes were made in the reporting of natural gas liquids. As a result, unfractionated stream is now reported on a component basis (ethane, propane, normal butane, isobutane, and pentanes plus). This change affects stocks reported and stock change calculations. Under the new basis, 1983 end-of-year stocks, in million barrels, would have been 108 for liquefied petroleum gases, and 55 for propane and propylene.

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

**Note 5. Stocks of Alaskan Crude Oil.** Stocks of Alaskan crude oil in transit were included for the first time in January 1981. The major impact of this change is on the reporting of stock change calculations. Using the expanded coverage (new basis), 1980 end-of-year stocks, in million barrels, would have been 488 (Total) and 380 (Non-SPR).

**Note 6. Petroleum Data Discrepancies.** Due to differences internal to EIA data processing systems, some small discrepancies exist between data in the *Monthly Energy Review* and the *Petroleum Supply Annual (PSA)* and *Petroleum Supply Monthly (PSM)*. The data that have discrepancies are footnoted in Section 3 tables. The corresponding PSA/PSM values, in thousand barrels per day, are: Natural Gas Plant Liquids Production, 1976: 1,603; Total Exports, 1979: 472; Petroleum Products Exports, 1979: 237; and SPR Crude Oil Imports, 1978: 162.

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

### Table 3.1 Sources

1973–1975: Bureau of Mines, Mineral Industry Surveys, *Petroleum Statement, Annual*, annual reports.

1976–1980: U.S. Energy Information Administration (EIA), Energy Data Reports, *Petroleum Statement, Annual*, annual reports.

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

2002 forward: EIA, PSA, annual reports; *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 in these tables are derived from data for "petroleum products supplied" from the following sources:

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

1976–1980: U.S. Energy Information Administration's (EIA), *Energy Data Reports*, "Petroleum Statement, Annual."

1981–2011: EIA, *Petroleum Supply Annual*.

2012 and 2013: EIA, *Petroleum Supply Monthly*.

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

#### **Asphalt and Road Oil**

All consumption of asphalt and road oil is assigned to the industrial sector.

#### **Aviation Gasoline**

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

#### **Distillate Fuel Oil**

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

#### **Distillate Fuel Oil Consumed by the Electric Power Sector**

See sources for Table 7.4b. For 1973–1979, electric utility consumption of distillate fuel oil is assumed to be the amount of petroleum (minus small amounts of kerosene and kerosene-type jet fuel deliveries) consumed in gas turbine and internal combustion plants. For 1980–2000, electric utility consumption of distillate fuel oil is assumed to be the amount of light oil (fuel oil nos. 1 and 2, plus small amounts of kerosene and jet fuel) consumed.

#### **Distillate Fuel Oil Consumed by the End-Use Sectors, Annually**

The aggregate end-use amount is total distillate fuel oil supplied minus the amount consumed by the electric power

sector. The end-use total consumed annually is allocated 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:

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

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

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

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

#### **Distillate Fuel Oil Consumed by the End-Use Sectors, Monthly**

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

The transportation highway use portion is allocated into the months in proportion to each month's share of the



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

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

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

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

### **Jet Fuel**

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

### **Kerosene**

Kerosene product supplied is allocated 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).

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

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

Since 1979, the industrial sector sales total is the sum of the sales for industrial, farm, and all other uses. Prior to 1979, each year's sales category called "heating" is 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. Since 2003, residential sector LPG consumption is assumed to equal propane retail sales, with the remainder of the combined residential and commercial LPG consumption being assigned to the commercial sector. Prior to 2003, residential sector LPG consumption is based on the average of the State residential shares for 2003–2008, with the remainder of the combined residential and commercial LPG consumption being assigned to the commercial sector.

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

LPG consumed annually by the industrial sector is estimated as the difference between LPG total product supplied and the sum of the estimated LPG consumption by the residential, commercial, and transportation sectors. The industrial sector 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:

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

Since 1979, industrial sales data are the sum of sales for industrial, oil company, and all other uses. Prior to 1979, each year's sales subtotal of the heating plus industrial category is 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.

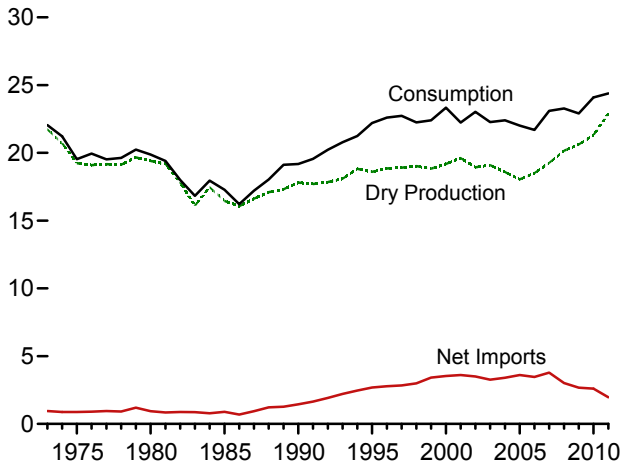
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## 4. Natural Gas

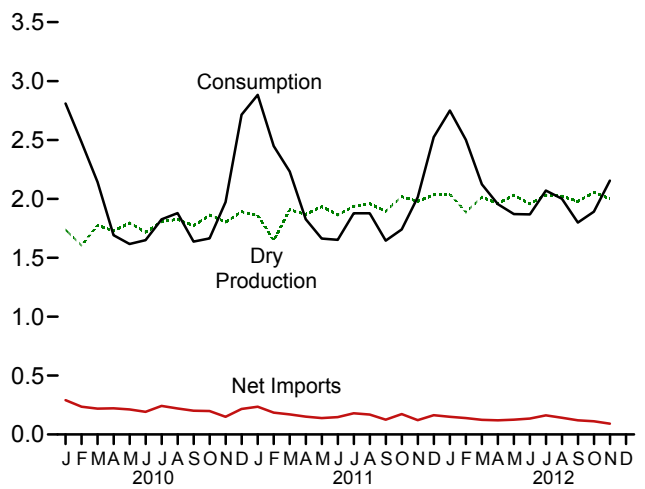
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**Figure 4.1 Natural Gas**  
(Trillion Cubic Feet)

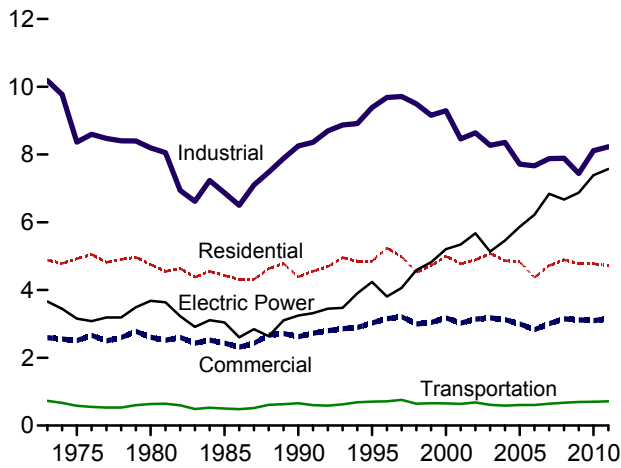
Overview, 1973-2011



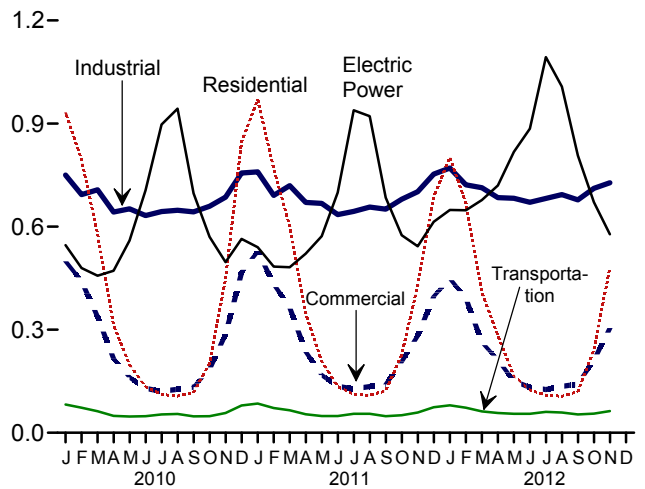
Overview, Monthly



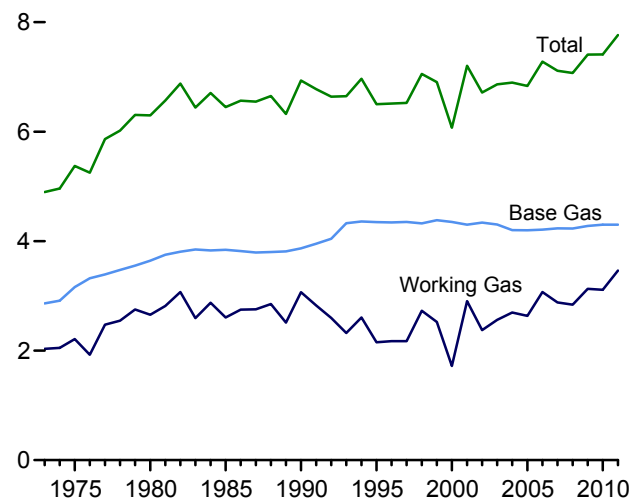
Consumption by Sector, 1973-2011



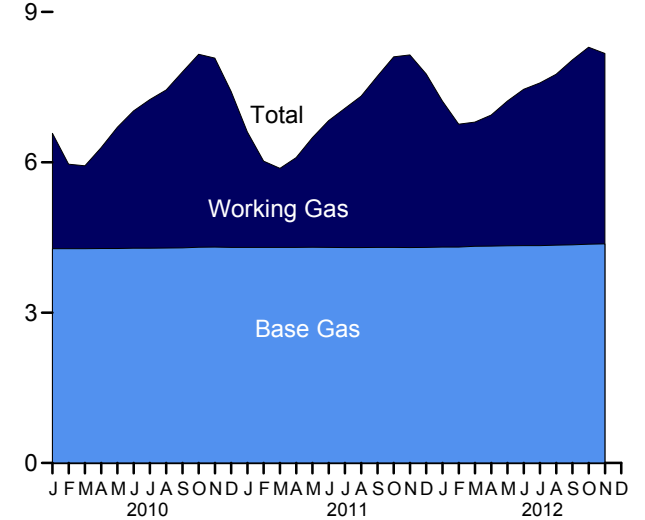
Consumption by Sector, Monthly



Underground Storage, End of Year, 1973-2011



Underground Storage, End of Month



Web Page: <http://www.eia.gov/totalenergy/data/monthly/#naturalgas>.  
Sources: Tables 4.1, 4.3, and 4.4.

**Table 4.1 Natural Gas Overview**  
(Billion Cubic Feet)

	Gross Withdrawals <sup>a</sup>	Marketed Production (Wet) <sup>b</sup>	Extraction Loss <sup>c</sup>	Dry Gas Production <sup>d</sup>	Supplemental Gaseous Fuels <sup>e</sup>	Trade			Net Storage Withdrawals <sup>f</sup>	Balancing Item <sup>g</sup>	Consumption <sup>h</sup>
						Imports	Exports	Net Imports			
1973 Total	24,067	22,648	917	21,731	NA	1,033	77	956	-442	-196	22,049
1975 Total	21,104	20,109	872	19,236	NA	953	73	880	-344	-235	19,538
1980 Total	21,870	20,180	777	19,403	155	985	49	936	23	-640	19,877
1985 Total	19,607	17,270	816	16,454	126	950	55	894	235	-428	17,281
1990 Total	21,523	18,594	784	17,810	123	1,532	86	1,447	-513	307	19,174
1995 Total	23,744	19,506	908	18,599	110	2,841	154	2,687	415	396	22,207
1996 Total	24,114	19,812	958	18,854	109	2,937	153	2,784	2	860	22,609
1997 Total	24,213	19,866	964	18,902	103	2,994	157	2,837	24	871	22,737
1998 Total	24,108	19,961	938	19,024	102	3,152	159	2,993	-530	657	22,246
1999 Total	23,823	19,805	973	18,832	98	3,586	163	3,422	172	-119	22,405
2000 Total	24,174	20,198	1,016	19,182	90	3,782	244	3,538	829	-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 January	2,210	1,824	87	1,737	5	385	94	291	822	-46	2,810
February	2,048	1,683	80	1,603	5	324	88	236	628	9	2,481
March	2,277	1,865	89	1,776	5	319	100	219	34	109	2,143
April	2,190	1,813	86	1,727	5	298	76	223	-364	102	1,992
May	2,237	1,886	90	1,797	5	298	86	212	-416	19	1,617
June	2,139	1,802	86	1,717	5	282	90	192	-326	61	1,650
July	2,209	1,896	90	1,806	5	329	86	243	-231	2	1,826
August	2,235	1,918	91	1,827	6	305	84	221	-190	16	1,879
September	2,238	1,861	89	1,772	5	282	79	202	-363	21	1,637
October	2,357	1,956	93	1,863	6	295	96	199	-360	-42	1,665
November	2,277	1,893	90	1,802	5	273	124	150	77	-61	1,973
December	2,400	1,984	95	1,890	6	352	135	217	675	-73	2,714
Total	26,816	22,382	1,066	21,316	65	3,741	1,137	2,604	-13	115	24,087
2011 January	2,299	1,953	92	1,861	5	372	136	236	811	-31	2,882
February	2,104	1,729	82	1,647	4	311	125	186	594	16	2,448
March	2,411	2,002	95	1,908	5	315	145	171	151	-3	2,232
April	2,350	1,961	93	1,868	5	278	127	151	-216	20	1,828
May	2,411	2,031	96	1,935	5	271	132	139	-405	-10	1,663
June	2,313	1,954	92	1,862	5	267	120	147	-346	-15	1,653
July	2,340	2,033	96	1,937	5	293	113	180	-248	3	1,877
August	2,370	2,057	97	1,960	5	280	111	169	-249	-7	1,878
September	2,358	1,987	94	1,893	5	252	127	125	-404	27	1,646
October	2,502	2,119	100	2,019	5	282	110	173	-391	-65	1,741
November	2,476	2,076	98	1,978	5	249	128	121	-41	-50	2,014
December	2,544	2,135	101	2,034	5	298	134	163	390	-69	2,524
Total	28,479	24,036	1,134	22,902	60	3,469	1,507	1,962	-354	-185	24,385
2012 January	2,573	2,149	109	2,041	6	281	130	151	545	8	2,750
February	2,378	2,189	102	2,087	5	270	130	140	459	10	2,501
March	2,537	2,123	109	2,014	6	265	141	124	-39	19	2,124
April	2,445	2,065	105	1,960	4	243	123	120	-137	8	1,956
May	2,530	2,139	108	2,031	4	259	133	126	-283	-8	1,871
June	2,420	2,061	103	1,958	5	260	125	134	-230	R -1	1,868
July	R 2,458	RE 2,139	106	RE 2,033	5	281	118	162	-134	R 5	2,071
August	R 2,374	RE 2,130	107	RE 2,023	5	281	139	142	-168	R (s)	2,001
September	2,428	RE 2,087	109	E 1,978	5	258	137	121	-291	-14	R 1,799
October	R 2,569	RE 2,170	114	RE 2,056	5	253	140	113	-241	R -41	R 1,892
November	2,506	E 2,113	112	E 2,001	5	233	142	92	125	-69	2,154
11-Month Total	27,219	E 23,166	1,185	E 21,981	56	2,884	1,460	1,424	-394	-82	22,984
2011 11-Month Total	25,935	21,901	1,034	20,868	55	3,171	1,373	1,798	-744	-115	21,861
2010 11-Month Total	24,416	20,398	972	19,426	59	3,389	1,002	2,387	-688	188	21,373

<sup>a</sup> 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.

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

<sup>c</sup> See Note 2, "Natural Gas Extraction Loss," at end of section.

<sup>d</sup> Marketed production (wet) minus extraction loss.

<sup>e</sup> See Note 3, "Supplemental Gaseous Fuels," at end of section.

<sup>f</sup> Net withdrawals from underground storage. For 1980-2011, also includes net withdrawals of liquefied natural gas in above-ground tanks. See Note 4, "Natural Gas Storage," at end of section.

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

<sup>h</sup> See Note 6, "Natural Gas Consumption," at end of section.

<sup>i</sup> May include unknown quantities of nonhydrocarbon gases.

<sup>j</sup> 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. (s)=Less than 0.5 billion cubic feet and greater than -0.5 billion cubic feet. NA=Not available.

Notes: • See Note 8, "Natural Gas Adjustments, 1993-2000," 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/#naturalgas> for all available data beginning in 1973.

Sources: • Imports and Exports: Table 4.2. • Consumption: Table 4.3. • Balancing Item: Calculated as consumption minus dry gas production, supplemental gaseous fuels, net imports, and net storage withdrawals. • All Other Data: 1973-2006—U.S. Energy Information Administration (EIA), *Natural Gas Annual*, annual reports. 2007 forward—EIA, *Natural Gas Monthly*, January 2013, Table 1.

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

	Imports									Exports				
	Algeria <sup>a</sup>	Canada <sup>b</sup>	Egypt <sup>a</sup>	Mexico <sup>b</sup>	Nigeria <sup>a</sup>	Qatar <sup>a</sup>	Trinidad and Tobago <sup>a</sup>	Other <sup>a,c</sup>	Total	Canada <sup>b</sup>	Japan <sup>a</sup>	Mexico <sup>b</sup>	Other <sup>a,d</sup>	Total
1973 Total	3	1,028	0	2	0	0	0	0	1,033	15	48	14	0	77
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	0	45	4	0	49
1985 Total	24	926	0	0	0	0	0	0	950	0	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
1996 Total	35	2,883	0	14	0	0	0	5	2,937	52	68	34	0	153
1997 Total	66	2,899	0	17	0	0	0	12	2,994	56	62	38	0	157
1998 Total	69	3,052	0	15	0	0	0	17	3,152	40	66	53	0	159
1999 Total	76	3,368	0	55	0	20	51	17	3,586	39	64	61	0	163
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 January	0	327	17	1	0	12	22	6	385	68	2	23	0	94
February	0	277	12	1	0	6	16	12	324	60	2	22	3	88
March	0	276	9	5	3	1	16	9	319	77	2	21	0	100
April	0	252	6	5	9	9	15	3	298	50	4	22	0	76
May	0	257	9	4	9	0	16	3	298	55	2	29	0	86
June	0	248	6	2	11	0	11	5	282	51	2	34	3	90
July	0	291	6	1	5	0	17	8	329	50	4	32	0	86
August	0	282	0	1	0	0	17	5	305	49	2	33	0	84
September	0	250	6	3	3	0	16	3	282	50	7	23	0	79
October	0	257	3	4	2	5	15	9	295	63	2	25	6	96
November	0	242	0	(s)	0	9	14	9	273	84	2	30	8	124
December	0	322	0	1	0	4	15	9	352	82	3	38	12	135
Total	0	3,280	73	30	42	46	190	81	3,741	739	33	333	32	1,137
2011 January	0	332	3	(s)	0	13	16	9	372	85	2	37	13	136
February	0	279	6	(s)	0	0	11	15	311	84	2	37	3	125
March	0	277	6	(s)	0	14	10	9	315	98	2	41	3	145
April	0	245	6	(s)	0	4	11	13	278	76	2	43	6	127
May	0	236	3	(s)	0	24	8	0	271	80	3	44	6	132
June	0	239	6	(s)	0	5	11	6	267	71	2	47	0	120
July	0	273	0	(s)	0	5	13	3	293	64	0	47	3	113
August	0	250	0	(s)	2	8	11	9	280	67	2	42	0	111
September	0	231	0	(s)	0	4	8	9	252	77	2	39	8	127
October	0	251	3	1	0	8	8	12	282	64	0	43	3	110
November	0	233	0	(s)	0	3	12	0	249	84	2	39	3	128
December	0	272	3	(s)	0	4	10	9	298	87	0	42	5	134
Total	0	3,117	35	3	2	91	129	92	3,469	937	18	500	52	1,507
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	265	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	242	0	(s)	0	6	5	0	253	75	2	61	3	140
November	0	219	0	(s)	0	3	8	3	233	93	0	49	0	142
11-Month Total	0	2,726	3	(s)	0	34	104	17	2,884	870	14	568	8	1,460
2011 11-Month Total	0	2,845	32	2	2	87	118	83	3,171	850	18	458	47	1,373
2010 11-Month Total	0	2,958	73	29	42	41	175	72	3,389	657	30	295	20	1,002

<sup>a</sup> As liquefied natural gas.

<sup>b</sup> By pipeline, except for very small amounts of liquefied natural gas imported from Canada in 1973, 1977, and 1981 and exported to Mexico beginning in 1998. See Note 9, "Natural Gas Imports and Exports," at end of section.

<sup>c</sup> Australia in 1997-2001 and 2004; Brunei in 2002; Equatorial Guinea in 2007; Indonesia in 1986 and 2000; Malaysia in 1999 and 2002-2005; Norway in 2008 forward; Oman in 2000-2005; Peru in 2010 and 2011; United Arab Emirates in 1996-2000; Yemen in 2010 forward; and Other (unassigned) in 2004.

<sup>d</sup> Brazil in 2010 forward; Chile in 2011; China in 2011; India in 2010 forward; Russia in 2007; South Korea in 2009-2011; Spain in 2010 and 2011; and United Kingdom in 2010 and 2011.

(s)=Less than 500 million cubic feet.

Notes: • See Note 9, "Natural Gas Imports and Exports," at end of section. • Totals may not equal sum of components due to independent rounding. • U.S. geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#naturalgas> for all available data beginning in 1973.

Sources: • 1973-1987: U.S. Energy Information Administration (EIA), Form FPC-14, "Annual Report for Importers and Exporters of Natural Gas." • 1988-2009: EIA, *Natural Gas Annual*, annual reports. • 2010 forward: EIA, *Natural Gas Monthly*, January 2013, Tables 4 and 5; and U.S. Department of Energy, Office of Fossil Energy, "Natural Gas Imports and Exports."



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

	End-Use Sectors										Electric Power Sector <sup>f,g</sup>	Total
	Residential	Commercial <sup>a</sup>	Lease and Plant Fuel	Industrial			Transportation					
				Other Industrial		Total	Pipelines <sup>d</sup> and Distribution <sup>e</sup>	Vehicle Fuel	Total			
				CHP <sup>b</sup>	Non-CHP <sup>c</sup>					Total		
1973 Total	4,879	2,597	1,496	(h)	8,689	8,689	10,185	728	NA	728	3,660	22,049
1975 Total	4,924	2,508	1,396	(h)	6,968	6,968	8,365	583	NA	583	3,158	19,538
1980 Total	4,752	2,611	1,026	(h)	7,172	7,172	8,198	635	NA	635	3,682	19,877
1985 Total	4,433	2,432	966	(h)	5,901	5,901	6,867	504	NA	504	3,044	17,281
1990 Total	4,391	2,623	1,236	(h)	5,963	5,963	7,018	8,255	(s)	660	3,245	19,174
1995 Total	4,850	3,031	1,220	1,258	6,906	8,164	9,384	700	5	705	4,237	22,207
1996 Total	5,241	3,158	1,250	1,289	7,146	8,435	9,685	711	6	718	3,807	22,609
1997 Total	4,984	3,215	1,203	1,282	7,229	8,511	9,714	751	8	760	4,065	22,737
1998 Total	4,520	2,999	1,173	1,355	6,965	8,320	9,493	635	9	645	4,588	22,246
1999 Total	4,726	3,045	1,079	1,401	6,678	8,079	9,158	645	12	657	4,820	22,405
2000 Total	4,996	3,182	1,151	1,386	6,757	8,142	9,293	642	13	655	5,206	23,333
2001 Total	4,771	3,023	1,119	1,310	6,035	7,344	8,463	625	15	640	5,342	22,239
2002 Total	4,889	3,144	1,113	1,240	6,287	7,527	8,640	667	15	682	5,672	23,027
2003 Total	5,079	3,179	1,122	1,144	6,007	7,150	8,273	591	18	610	5,135	22,277
2004 Total	4,869	3,129	1,112	1,098	6,066	7,256	8,354	566	21	587	5,464	22,403
2005 Total	4,827	2,999	1,112	1,084	5,518	6,601	7,713	584	23	607	5,869	22,014
2006 Total	4,368	2,832	1,142	1,115	5,412	6,527	7,669	584	24	608	6,222	21,699
2007 Total	4,722	3,013	1,226	1,050	5,604	6,655	7,881	621	25	646	6,841	23,104
2008 Total	4,892	3,153	1,220	955	5,715	6,670	7,890	648	26	674	6,668	23,277
2009 Total	4,779	3,119	1,275	990	5,178	6,167	7,443	670	27	697	6,873	22,910
2010 January	933	499	106	90	554	644	750	80	2	82	546	2,810
February	795	441	98	80	516	595	693	70	2	73	480	2,481
March	579	337	109	84	515	598	707	60	2	63	457	2,143
April	313	215	105	79	459	538	643	47	2	49	471	1,692
May	198	161	108	82	463	544	652	45	2	47	560	1,617
June	134	130	103	84	445	529	632	46	2	48	706	1,650
July	111	120	107	91	446	537	644	51	2	53	897	1,826
August	107	127	108	95	445	539	647	52	2	55	943	1,879
September	117	133	107	87	449	536	643	45	2	48	697	1,637
October	202	185	113	84	463	547	659	46	2	48	570	1,665
November	447	287	109	82	495	577	686	55	2	57	497	1,973
December	847	467	115	92	549	641	756	77	2	79	564	2,714
Total	4,782	3,103	1,286	1,029	5,797	6,826	8,112	674	29	703	7,387	24,087
2011 January	970	528	107	90	563	652	759	82	3	85	540	2,882
February	769	432	97	81	513	594	691	70	2	72	484	2,448
March	601	364	111	82	526	608	719	63	3	66	482	2,232
April	347	236	109	83	479	562	670	51	3	54	521	1,828
May	208	168	112	87	468	555	667	46	3	49	572	1,663
June	135	135	107	88	440	527	635	46	3	48	699	1,653
July	111	128	110	97	438	535	644	52	3	55	939	1,877
August	109	135	111	99	446	546	657	52	3	55	921	1,878
September	122	141	109	91	451	541	651	46	3	48	684	1,646
October	227	208	116	85	479	563	680	48	3	51	575	1,741
November	429	283	115	86	501	597	701	56	3	59	543	2,014
December	686	397	118	96	539	635	753	71	3	74	614	2,524
Total	4,714	3,154	1,323	1,063	5,842	6,905	8,227	684	32	716	7,574	24,385
2012 January	802	449	E 118	98	554	652	771	E 77	E 3	E 80	648	2,750
February	668	391	E 109	90	522	612	721	E 70	E 3	E 73	648	2,501
March	408	283	E 117	90	506	596	713	E 60	E 3	E 62	677	2,124
April	283	211	E 114	87	483	570	684	E 55	E 3	E 58	720	1,956
May	165	151	E 118	93	472	565	683	E 52	E 3	E 55	817	1,871
June	125	R 132	E 113	94	463	557	671	E 52	E 3	E 55	885	1,868
July	109	126	E 118	101	463	564	682	E 58	E 3	E 61	1,093	2,071
August	107	135	E 117	98	478	576	693	E 56	E 3	E 59	1,007	2,001
September	119	142	E 115	93	470	563	678	E 50	E 3	E 53	807	R 1,799
October	R 241	R 212	RE 119	95	497	592	711	E 53	E 3	E 56	671	R 1,892
November	481	305	E 116	97	514	611	728	E 60	E 3	E 63	578	2,154
11-Month Total	3,508	2,517	E 1,275	1,037	5,423	6,459	7,734	E 644	E 30	E 675	8,551	22,984
2011 11-Month Total	4,028	2,757	1,205	967	5,303	6,270	7,475	612	30	642	6,960	21,861
2010 11-Month Total	3,935	2,635	1,171	937	5,248	6,185	7,356	597	26	624	6,823	21,373

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

<sup>b</sup> Industrial combined-heat-and-power (CHP) and a small number of industrial electricity-only plants.

<sup>c</sup> All industrial sector fuel use other than that in "Lease and Plant Fuel" and "CHP."

<sup>d</sup> Natural gas consumed in the operation of pipelines, primarily in compressors.

<sup>e</sup> Natural gas used as fuel in the delivery of natural gas to consumers.

<sup>f</sup> 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.

<sup>g</sup> Through 1988, data are for electric utilities only. Beginning in 1989, data are for electric utilities and independent power producers.

<sup>h</sup> Included in "Non-CHP."

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

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

Notes: • Data are for natural gas, plus a small amount of supplemental

gaseous fuels. • See Note 8, "Natural Gas Adjustments, 1993-2000," at end of section. • See Note, "Classification of Power Plants Into Energy-Use Sectors," at end of Section 7. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#naturalgas> for all available data beginning in 1973.

Sources: • Residential, Commercial, Lease and Plant Fuel, Other Industrial Total and Pipelines and Distribution: 1973-2006—U.S. Energy Information Administration (EIA), *Natural Gas Annual (NGA)*, annual reports and unpublished revisions. • 2007 forward—EIA, *Natural Gas Monthly (NGM)*, January 2013, Table 2. • Industrial CHP: Table 7.4c. • Vehicle Fuel: 1990 and 1991—EIA, NGA 2000, (November 2001), Table 95. 1992-1998—EIA, "Alternatives to Traditional Transportation Fuels 1999" (October 1999), Table 10, and "Alternatives to Traditional Transportation Fuels 2003" (February 2004), Table 10. Data for compressed natural gas and liquefied natural gas in gasoline-equivalent gallons were converted to cubic feet by multiplying by the motor gasoline conversion factor (see Table A3) and dividing by the natural gas end-use sectors conversion factor (see Table A4). 1999-2006—EIA, NGA, annual reports. 2007 forward—EIA, NGM, January 2013, Table 2. • Electric Power Sector: Table 7.4b.

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

	Natural Gas in Underground Storage, End of Period			Change in Working Gas From Same Period Previous Year		Storage Activity		
	Base Gas	Working Gas	Total <sup>a</sup>	Volume	Percent	Withdrawals	Injections	Net <sup>b,c</sup>
<b>1973 Total</b> .....	2,864	2,034	4,898	305	17.6	1,533	1,974	-442
<b>1975 Total</b> .....	3,162	2,212	5,374	162	7.9	1,760	2,104	-344
<b>1980 Total</b> .....	3,642	2,655	6,297	-99	-3.6	1,910	1,896	14
<b>1985 Total</b> .....	3,842	2,607	6,448	-270	-9.4	2,359	2,128	231
<b>1990 Total</b> .....	3,868	3,068	6,936	555	22.1	1,934	2,433	-499
<b>1995 Total</b> .....	4,349	2,153	6,503	-453	-17.4	2,974	2,566	408
<b>1996 Total</b> .....	4,341	2,173	6,513	19	.9	2,911	2,906	6
<b>1997 Total</b> .....	4,350	2,175	6,525	2	.1	2,824	2,800	24
<b>1998 Total</b> .....	4,326	2,730	7,056	554	25.5	2,379	2,905	-526
<b>1999 Total</b> .....	4,383	2,523	6,906	-207	-7.6	2,772	2,598	174
<b>2000 Total</b> .....	4,352	1,719	6,071	-806	-31.9	3,498	2,684	814
<b>2001 Total</b> .....	4,301	2,904	7,204	1,185	68.9	2,309	3,464	-1,156
<b>2002 Total</b> .....	4,340	2,375	6,715	-528	-18.2	3,138	2,670	468
<b>2003 Total</b> .....	4,303	2,563	6,866	187	7.9	3,099	3,292	-193
<b>2004 Total</b> .....	4,201	2,696	6,897	133	5.2	3,037	3,150	-113
<b>2005 Total</b> .....	4,200	2,635	6,835	-61	-2.3	3,057	3,002	55
<b>2006 Total</b> .....	4,211	3,070	7,281	435	16.5	2,493	2,924	-431
<b>2007 Total</b> .....	4,234	2,879	7,113	-191	-6.2	3,325	3,133	192
<b>2008 Total</b> .....	4,232	2,840	7,073	-39	-1.4	3,374	3,340	34
<b>2009 Total</b> .....	4,277	3,130	7,407	290	10.2	2,966	3,315	-349
<b>2010</b>								
January .....	4,276	2,304	6,580	171	8.0	873	63	811
February .....	4,278	1,683	5,961	-75	-4.2	657	38	619
March .....	4,278	1,652	5,930	-7	-.4	238	207	31
April .....	4,278	2,011	6,289	101	5.3	68	427	-360
May .....	4,279	2,420	6,699	45	1.9	53	463	-410
June .....	4,287	2,740	7,027	-20	-7	64	385	-321
July .....	4,287	2,966	7,253	-125	-4.0	112	339	-227
August .....	4,290	3,153	7,443	-206	-6.1	137	323	-186
September .....	4,294	3,508	7,801	-138	-3.8	52	411	-359
October .....	4,305	3,851	8,156	41	1.1	52	407	-355
November .....	4,309	3,769	8,078	-69	-1.8	237	163	74
December .....	4,301	3,111	7,412	-19	-6	731	66	665
<b>Total</b> .....	<b>4,301</b>	<b>3,111</b>	<b>7,412</b>	<b>-19</b>	<b>-6</b>	<b>3,274</b>	<b>3,291</b>	<b>-17</b>
<b>2011</b>								
January .....	4,303	2,306	6,609	2	.1	849	50	799
February .....	4,302	1,722	6,024	39	2.3	666	82	584
March .....	4,302	1,577	5,879	-75	-4.6	314	168	146
April .....	4,304	1,788	6,092	-223	-11.1	100	312	-212
May .....	4,304	2,187	6,491	-233	-9.6	58	458	-399
June .....	4,302	2,530	6,831	-210	-7.7	80	421	-340
July .....	4,300	2,775	7,075	-190	-6.4	116	359	-244
August .....	4,300	3,019	7,319	-134	-4.2	126	370	-244
September .....	4,301	3,416	7,717	-92	-2.6	55	454	-398
October .....	4,302	3,804	8,106	-47	-1.2	52	437	-385
November .....	4,300	3,843	8,143	74	2.0	184	221	-38
December .....	4,302	3,462	7,764	351	11.3	474	90	383
<b>Total</b> .....	<b>4,302</b>	<b>3,462</b>	<b>7,764</b>	<b>351</b>	<b>11.3</b>	<b>3,074</b>	<b>3,422</b>	<b>-348</b>
<b>2012</b>								
January .....	4,307	2,916	7,223	610	26.5	633	88	545
February .....	4,307	2,455	6,762	733	42.6	526	67	459
March .....	4,325	2,477	6,802	900	57.1	217	256	-39
April .....	4,329	2,613	6,942	825	46.1	144	282	-137
May .....	4,334	2,890	7,225	704	32.2	92	375	-283
June .....	4,337	3,118	7,456	589	23.3	109	339	-230
July .....	4,339	3,246	7,585	471	17.0	129	263	-134
August .....	4,348	3,409	7,757	390	12.9	134	302	-168
September .....	4,352	3,693	8,045	278	8.1	67	358	-291
October .....	4,365	3,930	8,295	126	3.3	99	340	-241
November .....	4,372	3,799	8,172	-43	-1.1	296	171	125
<b>11-Month Total</b> ...	--	--	--	--	--	<b>2,446</b>	<b>2,840</b>	<b>-394</b>
<b>2011 11-Month Total</b> ...	--	--	--	--	--	<b>2,601</b>	<b>3,331</b>	<b>-731</b>
<b>2010 11-Month Total</b> ...	--	--	--	--	--	<b>2,543</b>	<b>3,225</b>	<b>-682</b>

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

<sup>b</sup> For 1980-2011, data differ from those shown on Table 4.1, which includes liquefied natural gas storage for that period.

<sup>c</sup> 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.

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/#naturalgas> for all available data beginning in 1973.

Sources: • **Storage Activity: 1973-1975**—U.S. Energy Information Administration (EIA), *Natural Gas Annual 1994, Volume 2*, Table 9.

**1976-1979**—EIA, *Natural Gas Production and Consumption 1979*, Table 1.

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

**1996-2006**—EIA, *Natural Gas Monthly (NGM)*, monthly issues. **2007**

**forward**—EIA, NGM, January 2013, Table 8. • **All Other Data: 1973 and**

**1974**—American Gas Association, *Gas Facts, 1972 Data*, Table 57, *Gas Facts,*

*1973 Data*, Table 57, and *Gas Facts, 1974 Data*, Table 40. • **1975 and**

**1976**—Federal Energy Administration (FEA), Form FEA-G318-M-0, "Underground

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

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

"Underground Gas Storage Report," and Federal Energy Regulatory Commission

(FERC), Form FERC-8, "Underground Gas Storage Report." • **1979-1995**—EIA,

Form EIA-191, "Underground Gas Storage Report," and FERC, Form FERC-8,

"Underground Gas Storage Report." • **1996-2006**—EIA, NGM, monthly issues. **2007**

**forward**—EIA, NGM, January 2013, Table 8.

## Natural Gas

**Note 1. Natural Gas Production.** Final annual data are from the U.S. Energy Information Administration (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 the EIA *Natural Gas Monthly (NGM)*.

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

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

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

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

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

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

**Note 3. Supplemental Gaseous Fuels.** Supplemental gaseous fuels are any substances that, introduced into or commingled with natural gas, increase the volume available for disposition. Such substances include, but are not limited to, propane-air, refinery gas, coke oven gas, still gas, manufactured gas, biomass gas, and air or inert gases added for Btu stabilization.

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

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

Although the total amount of supplemental gaseous fuels consumed is known for 1980 forward, 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. The difference is due to changes in the quantity of native gas included in the base gas and/or losses in base gas due to migration from storage reservoirs.

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

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 January 1991, all data are collected on the revised Form EIA-191. Injection and withdrawal data from the FERC-8/EIA-191 survey are adjusted to correspond to data from Form EIA-176 following publication of the EIA NGA.

The final monthly and annual storage and withdrawal data for 1980–2011 include both underground and liquefied natural gas (LNG) storage. Annual data on LNG additions and withdrawals are from Form EIA-176. Monthly data are estimated by computing the ratio of each month's underground storage additions and withdrawals to annual underground storage additions and withdrawals and applying the ratio to the annual LNG data.

**Note 5. Natural Gas Balancing Item.** The balancing item for natural gas represents the difference between the sum of the components of natural gas supply and the sum of components of natural gas disposition. The differences may be due to quantities lost or to the effects of data reporting problems. Reporting problems include differences due to the net result of conversions of flow data metered at varying temperature and pressure bases and converted to a standard temperature and pressure base; the effect of variations in company accounting and billing practices; differences between billing cycle and calendar period time frames; and imbalances resulting from the merger of data reporting systems that vary in scope, format, definitions, and type of respondents.

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

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

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

**Note 7. Natural Gas Consumption, 1989–1992.** Prior to 1993, deliveries to nonutility generators were not separately collected from natural gas companies on Form

EIA-176, “Annual Report of Natural and Supplemental Gas Supply and Disposition.” As a result, for 1989 through 1992, those volumes are probably included in both the industrial and electric power sectors and double-counted in total consumption. In 1993, 0.28 trillion cubic feet was reported as delivered to nonutility generators.

**Note 8. Natural Gas 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](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 NGA. 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), Extraction Loss (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), and 1981 (6 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, Russia, South Korea, Spain, and United Kingdom. Also, small amounts of LNG have gone to Mexico since 1998.

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

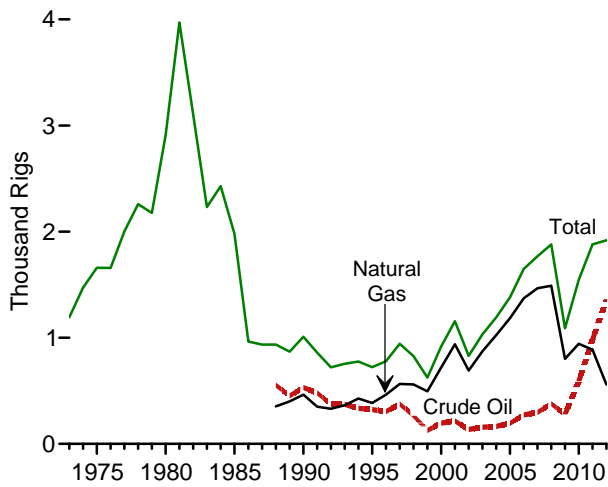
Preliminary monthly data are EIA estimates. For a discussion of estimation procedures, see the EIA NGM. Preliminary data are revised after the publication of the EIA *U.S. Imports and Exports of Natural Gas*.

# **5. Crude Oil and Natural Gas Resource Development**

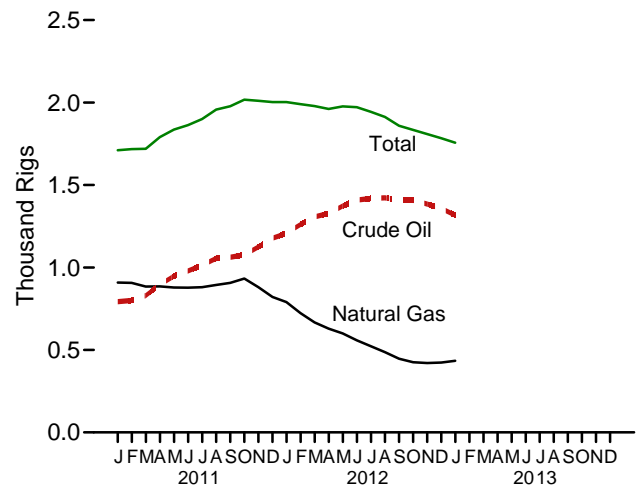
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**Figure 5.1 Crude Oil and Natural Gas Resource Development Indicators**

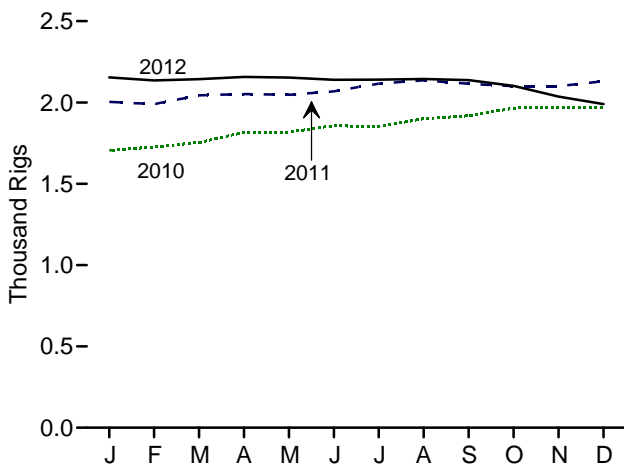
Rotary Rigs in Operation by Type, 1973-2012



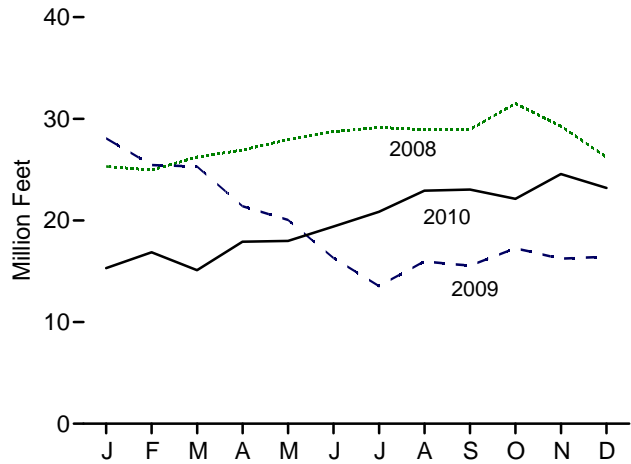
Rotary Rigs in Operation by Type, Monthly



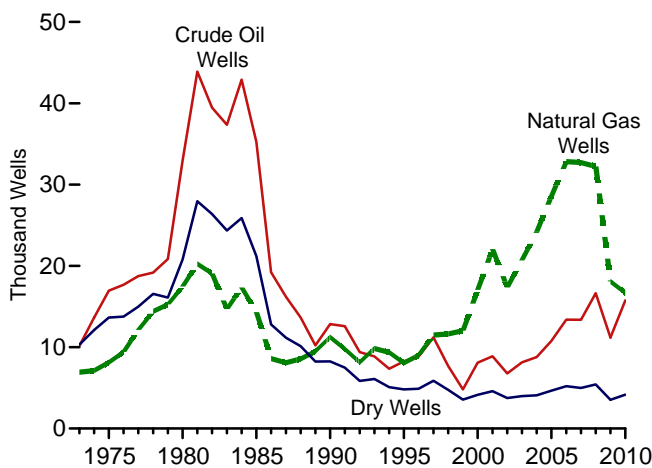
Active Well Service Rig Count, Monthly



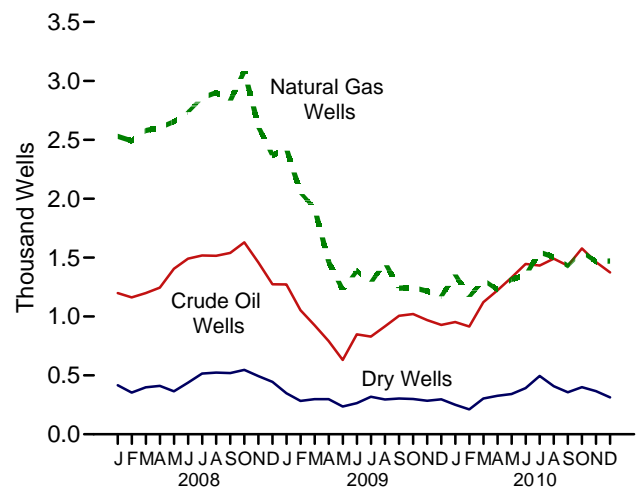
Footage Drilled, Monthly



Total Wells Drilled by Type, 1973-2010



Total Wells Drilled by Type, Monthly



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 <sup>a</sup>					Active Well Service Rig Count <sup>c</sup>
	By Site		By Type		Total <sup>b</sup>	
	Onshore	Offshore	Crude Oil	Natural Gas		
<b>1973 Average</b> .....	1,110	84	NA	NA	1,194	2,008
<b>1975 Average</b> .....	1,554	106	NA	NA	1,660	2,486
<b>1980 Average</b> .....	2,678	231	NA	NA	2,909	4,089
<b>1985 Average</b> .....	1,774	206	NA	NA	1,980	4,716
<b>1990 Average</b> .....	902	108	532	464	1,010	3,658
<b>1995 Average</b> .....	622	101	323	385	723	3,041
<b>1996 Average</b> .....	671	108	306	464	779	3,445
<b>1997 Average</b> .....	821	122	376	564	943	3,499
<b>1998 Average</b> .....	703	123	264	560	827	3,014
<b>1999 Average</b> .....	519	106	128	496	625	2,232
<b>2000 Average</b> .....	778	140	197	720	918	2,692
<b>2001 Average</b> .....	1,003	153	217	939	1,156	2,267
<b>2002 Average</b> .....	717	113	137	691	830	1,830
<b>2003 Average</b> .....	924	108	157	872	1,032	1,967
<b>2004 Average</b> .....	1,095	97	165	1,025	1,192	2,064
<b>2005 Average</b> .....	1,287	94	194	1,184	1,381	2,222
<b>2006 Average</b> .....	1,559	90	274	1,372	1,649	2,364
<b>2007 Average</b> .....	1,695	72	297	1,466	1,768	2,388
<b>2008 Average</b> .....	1,814	65	379	1,491	1,879	2,515
<b>2009 Average</b> .....	1,046	44	278	801	1,089	1,722
<b>2010</b>						
January .....	1,225	42	433	822	1,267	1,706
February .....	1,305	45	446	892	1,350	1,726
March .....	1,369	50	471	933	1,419	1,754
April .....	1,426	53	508	959	1,479	1,816
May .....	1,464	49	541	960	1,513	1,818
June .....	1,511	20	566	953	1,531	1,857
July .....	1,558	15	591	971	1,573	1,852
August .....	1,619	20	644	983	1,638	1,900
September .....	1,635	19	668	977	1,655	1,918
October .....	1,647	21	693	966	1,668	1,965
November .....	1,661	22	723	950	1,683	1,971
December .....	1,687	24	759	940	1,711	1,968
<b>Average</b> .....	<b>1,514</b>	<b>31</b>	<b>591</b>	<b>943</b>	<b>1,546</b>	<b>1,854</b>
<b>2011</b>						
January .....	1,686	26	793	909	1,711	2,004
February .....	1,692	26	801	907	1,718	1,990
March .....	1,694	26	830	884	1,720	2,044
April .....	1,762	28	896	885	1,790	2,052
May .....	1,804	32	948	878	1,836	2,047
June .....	1,829	34	979	877	1,863	2,069
July .....	1,865	35	1,014	880	1,900	2,116
August .....	1,923	35	1,055	894	1,957	2,136
September .....	1,946	32	1,063	907	1,978	2,115
October .....	1,982	35	1,077	933	2,017	2,100
November .....	1,974	37	1,125	880	2,011	2,100
December .....	1,961	42	1,177	821	2,003	2,131
<b>Average</b> .....	<b>1,846</b>	<b>32</b>	<b>984</b>	<b>887</b>	<b>1,879</b>	<b>2,075</b>
<b>2012</b>						
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
<b>Average</b> .....	<b>1,871</b>	<b>48</b>	<b>1,357</b>	<b>558</b>	<b>1,919</b>	<b>2,113</b>
<b>2013</b>						
January .....	1,704	52	1,318	434	1,756	NA

<sup>a</sup> 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.

<sup>b</sup> 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.

<sup>c</sup> The number of rigs doing true workovers (where tubing is pulled from the well), or doing rod string and pump repair operations, and that are, on average, crewed and working every day of the month.

NA=Not available.

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

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#crude> for all available data beginning in 1973.

Sources: • **Rotary Rigs in Operation:** Baker Hughes, Inc., Houston, TX, *Rotary Rigs Running—by State*, used with permission. See [http://investor.shareholder.com/bhi/rig\\_counts/rc\\_index.cfm](http://investor.shareholder.com/bhi/rig_counts/rc_index.cfm). • **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												
<b>1973 Total</b> .....	642	1,067	5,952	7,661	9,525	5,866	4,368	19,759	10,167	6,933	10,320	27,420	138,223
<b>1975 Total</b> .....	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
<b>1980 Total</b> .....	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
<b>1985 Total</b> .....	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
<b>1990 Total</b> .....	778	811	3,652	5,241	12,061	10,435	4,593	27,089	12,839	11,246	8,245	32,330	156,044
<b>1995 Total</b> .....	570	558	2,024	3,152	7,678	7,524	2,790	17,992	8,248	8,082	4,814	21,144	117,156
<b>1996 Total</b> .....	489	576	1,956	3,021	8,347	8,451	2,934	19,732	8,836	9,027	4,890	22,753	126,365
<b>1997 Total</b> .....	491	562	2,113	3,166	10,715	10,936	3,761	25,412	11,206	11,498	5,874	28,578	161,249
<b>1998 Total</b> .....	327	566	1,590	2,483	7,355	11,073	3,171	21,599	7,682	11,639	4,761	24,082	137,202
<b>1999 Total</b> .....	197	570	1,157	1,924	4,608	11,457	2,393	18,458	4,805	12,027	3,550	20,382	102,861
<b>2000 Total</b> .....	288	657	1,341	2,286	7,802	16,394	2,805	27,001	8,090	17,051	4,146	29,287	144,425
<b>2001 Total</b> .....	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
<b>2002 Total</b> .....	258	844	1,282	2,384	6,517	16,498	2,472	25,487	6,775	17,342	3,754	27,871	145,159
<b>2003 Total</b> .....	350	997	1,297	2,644	7,779	19,725	2,685	30,189	8,129	20,722	3,982	32,833	177,239
<b>2004 Total</b> .....	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
<b>2005 Total</b> .....	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
<b>2006 Total</b> .....	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
<b>2007 Total</b> .....	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
<b>2008</b> 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
<b>Total</b> .....	<b>897</b>	<b>2,345</b>	<b>1,715</b>	<b>4,957</b>	<b>15,736</b>	<b>29,901</b>	<b>3,708</b>	<b>49,345</b>	<b>16,633</b>	<b>32,246</b>	<b>5,423</b>	<b>54,302</b>	<b>334,141</b>
<b>2009</b> 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
<b>Total</b> .....	<b>605</b>	<b>1,206</b>	<b>1,055</b>	<b>2,866</b>	<b>10,585</b>	<b>16,882</b>	<b>2,470</b>	<b>29,937</b>	<b>11,190</b>	<b>18,088</b>	<b>3,525</b>	<b>32,803</b>	<b>231,562</b>
<b>2010</b> 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
<b>Total</b> .....	<b>669</b>	<b>1,105</b>	<b>1,066</b>	<b>2,840</b>	<b>15,084</b>	<b>15,591</b>	<b>3,096</b>	<b>33,771</b>	<b>15,753</b>	<b>16,696</b>	<b>4,162</b>	<b>36,611</b>	<b>239,247</b>

Notes: • Data are estimates. • Prior to 1990, these well counts include only the original drilling of a hole intended to discover or further develop already discovered crude oil or natural gas resources. Other drilling activities, such as drilling an old well deeper, drilling of laterals from the original well, drilling of service and injection wells, and drilling for resources other than crude oil or natural gas are excluded. After 1990, a new well is defined as the first hole in the ground whether it is lateral or not. Due to the methodology used to estimate ultimate well counts from the available partially reported data, the counts shown on this page are frequently revised. See Note, "Crude Oil and Natural Gas Exploratory and Development

Wells," at end of section. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#crude> for all available data beginning in 1973.

Sources: • **1973–1989:** U.S. Energy Information Administration (EIA) computations based on well reports submitted to the American Petroleum Institute. • **1990 forward:** EIA computations based on well reports submitted to IHS, Inc., Denver, CO.

The 2011 and 2012 data 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.

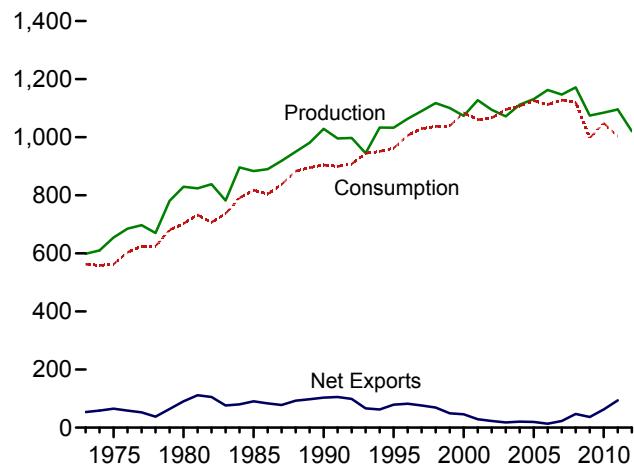
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## **6. Coal**

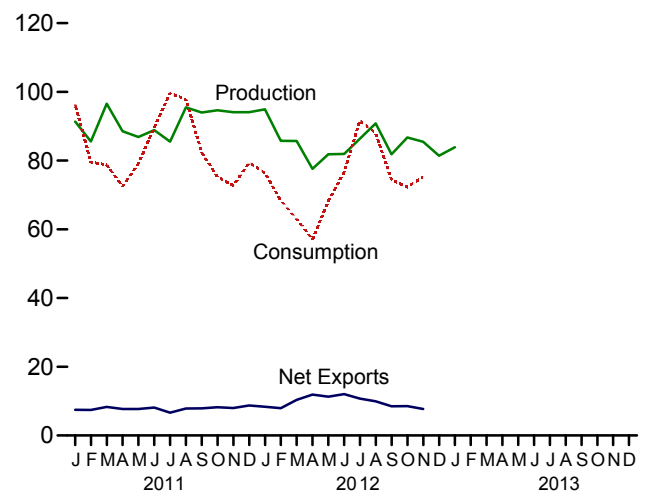
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**Figure 6.1 Coal**  
(Million Short Tons)

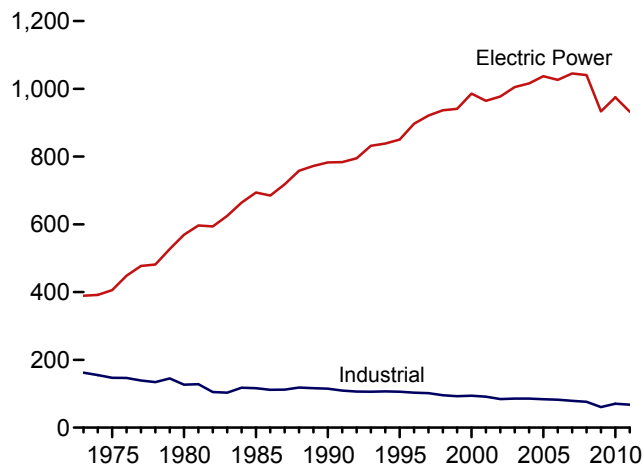
Overview, 1973-2012



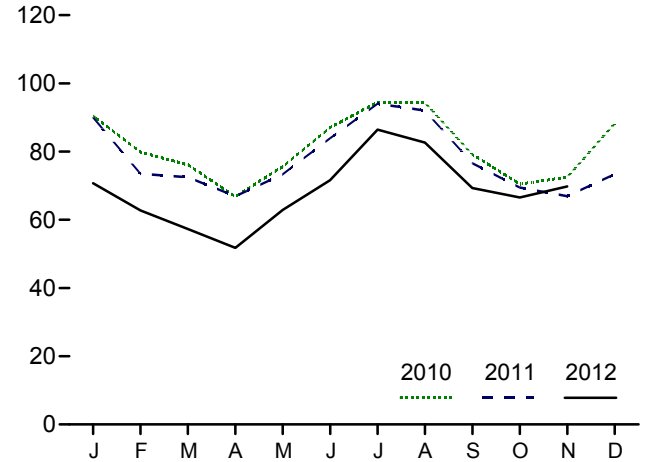
Overview, Monthly



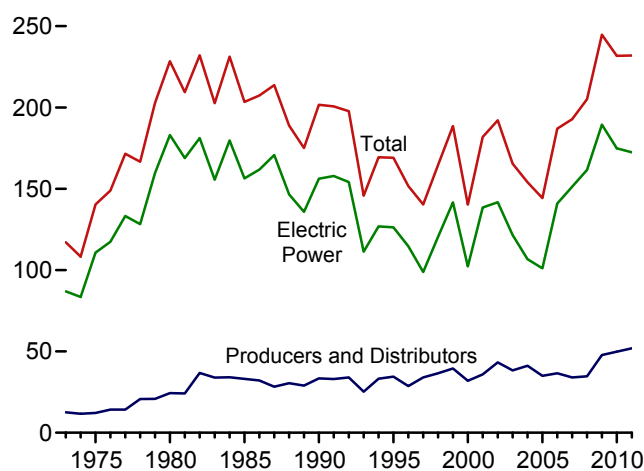
Consumption by Sector, 1973-2011



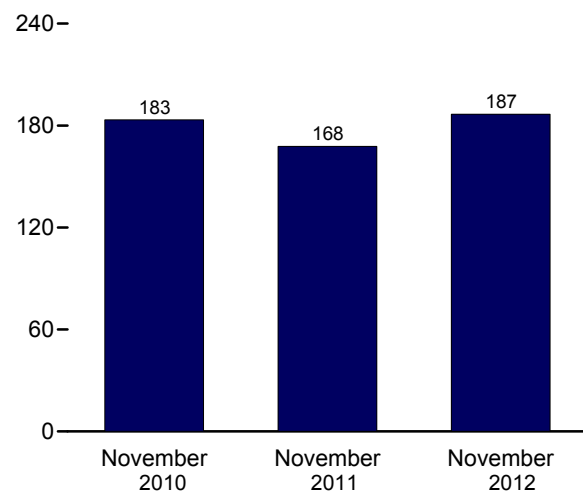
Electric Power Sector Consumption, Monthly



Stocks, End of Year, 1973-2011



Electric Power Sector Stocks, End of Month



Web Page: <http://www.eia.gov/totalenergy/data/monthly/#coal>.  
Sources: Tables 6.1-6.3.

**Table 6.1 Coal Overview**  
(Thousand Short Tons)

	Production <sup>a</sup>	Waste Coal Supplied <sup>b</sup>	Trade			Stock Change <sup>d,e</sup>	Losses and Unaccounted for <sup>f</sup>	Consumption
			Imports	Exports	Net Imports <sup>c</sup>			
<b>1973 Total</b> .....	<b>598,568</b>	<b>NA</b>	<b>127</b>	<b>53,587</b>	<b>-53,460</b>	<b>402</b>	<b>-17,878</b>	<b>562,584</b>
<b>1975 Total</b> .....	<b>654,641</b>	<b>NA</b>	<b>940</b>	<b>66,309</b>	<b>-65,369</b>	<b>32,154</b>	<b>-5,522</b>	<b>562,640</b>
<b>1980 Total</b> .....	<b>829,700</b>	<b>NA</b>	<b>1,194</b>	<b>91,742</b>	<b>-90,548</b>	<b>25,595</b>	<b>10,827</b>	<b>702,730</b>
<b>1985 Total</b> .....	<b>883,638</b>	<b>NA</b>	<b>1,952</b>	<b>92,680</b>	<b>-90,727</b>	<b>-27,934</b>	<b>2,796</b>	<b>818,049</b>
<b>1990 Total</b> .....	<b>1,029,076</b>	<b>3,339</b>	<b>2,699</b>	<b>105,804</b>	<b>-103,104</b>	<b>26,542</b>	<b>-1,730</b>	<b>904,498</b>
<b>1995 Total</b> .....	<b>1,032,974</b>	<b>8,561</b>	<b>9,473</b>	<b>88,547</b>	<b>-79,074</b>	<b>-275</b>	<b>632</b>	<b>962,104</b>
<b>1996 Total</b> .....	<b>1,063,856</b>	<b>8,778</b>	<b>8,115</b>	<b>90,473</b>	<b>-82,357</b>	<b>-17,456</b>	<b>1,411</b>	<b>1,006,321</b>
<b>1997 Total</b> .....	<b>1,089,932</b>	<b>8,096</b>	<b>7,487</b>	<b>83,545</b>	<b>-76,058</b>	<b>-11,253</b>	<b>3,678</b>	<b>1,029,544</b>
<b>1998 Total</b> .....	<b>1,117,535</b>	<b>8,690</b>	<b>8,724</b>	<b>78,048</b>	<b>-69,324</b>	<b>24,228</b>	<b>-4,430</b>	<b>1,037,103</b>
<b>1999 Total</b> .....	<b>1,100,431</b>	<b>8,683</b>	<b>9,089</b>	<b>58,476</b>	<b>-49,387</b>	<b>23,988</b>	<b>-2,906</b>	<b>1,038,647</b>
<b>2000 Total</b> .....	<b>1,073,612</b>	<b>9,089</b>	<b>12,513</b>	<b>58,489</b>	<b>-45,976</b>	<b>-48,309</b>	<b>938</b>	<b>1,084,095</b>
<b>2001 Total</b> .....	<b>1,127,689</b>	<b>10,085</b>	<b>19,787</b>	<b>48,666</b>	<b>-28,879</b>	<b>41,630</b>	<b>7,120</b>	<b>1,060,146</b>
<b>2002 Total</b> .....	<b>1,094,283</b>	<b>9,052</b>	<b>16,875</b>	<b>39,601</b>	<b>-22,726</b>	<b>10,215</b>	<b>4,040</b>	<b>1,066,355</b>
<b>2003 Total</b> .....	<b>1,071,753</b>	<b>10,016</b>	<b>25,044</b>	<b>43,014</b>	<b>-17,970</b>	<b>-26,659</b>	<b>-4,403</b>	<b>1,094,861</b>
<b>2004 Total</b> .....	<b>1,112,099</b>	<b>11,299</b>	<b>27,280</b>	<b>47,998</b>	<b>-20,718</b>	<b>-11,462</b>	<b>6,887</b>	<b>1,107,255</b>
<b>2005 Total</b> .....	<b>1,131,498</b>	<b>13,352</b>	<b>30,460</b>	<b>49,942</b>	<b>-19,482</b>	<b>-9,702</b>	<b>9,092</b>	<b>1,125,978</b>
<b>2006 Total</b> .....	<b>1,162,750</b>	<b>14,409</b>	<b>36,246</b>	<b>49,647</b>	<b>-13,401</b>	<b>42,642</b>	<b>8,824</b>	<b>1,112,292</b>
<b>2007 Total</b> .....	<b>1,146,635</b>	<b>14,076</b>	<b>36,347</b>	<b>59,163</b>	<b>-22,816</b>	<b>5,812</b>	<b>4,085</b>	<b>1,127,998</b>
<b>2008 Total</b> .....	<b>1,171,809</b>	<b>14,146</b>	<b>34,208</b>	<b>81,519</b>	<b>-47,311</b>	<b>12,354</b>	<b>5,740</b>	<b>1,120,548</b>
<b>2009 Total</b> .....	<b>1,074,923</b>	<b>13,666</b>	<b>22,639</b>	<b>59,097</b>	<b>-36,458</b>	<b>39,668</b>	<b>14,985</b>	<b>997,478</b>
<b>2010 January</b> .....	<b>85,711</b>	<b>1,187</b>	<b>1,665</b>	<b>5,866</b>	<b>-4,202</b>	<b>-10,695</b>	<b>-3,103</b>	<b>96,494</b>
February .....	83,087	908	1,239	5,386	-4,146	-7,306	1,154	86,001
March .....	96,904	1,192	1,899	6,554	-4,655	8,127	2,870	82,444
April .....	90,960	1,071	1,812	7,358	-5,545	11,519	2,176	72,790
May .....	85,401	1,138	1,475	7,220	-5,745	2,723	-3,500	81,570
June .....	88,621	1,219	1,771	7,387	-5,616	-9,407	647	92,983
July .....	90,795	1,273	1,390	6,928	-5,539	-15,499	1,446	100,582
August .....	93,350	1,261	1,702	7,001	-5,299	-8,766	-2,316	100,393
September .....	93,360	1,102	1,588	7,145	-5,556	5,111	-1,591	85,386
October .....	91,831	982	1,775	6,623	-4,849	11,463	-90	76,591
November .....	91,558	1,121	1,473	7,015	-5,542	8,878	-437	78,697
December .....	92,791	1,197	1,563	7,232	-5,669	-9,187	2,925	94,582
<b>Total</b> .....	<b>1,084,368</b>	<b>13,651</b>	<b>19,353</b>	<b>81,716</b>	<b>-62,363</b>	<b>-13,039</b>	<b>182</b>	<b>1,048,514</b>
<b>2011 January</b> .....	<b>91,355</b>	<b>1,182</b>	<b>1,014</b>	<b>8,509</b>	<b>-7,496</b>	<b>-11,679</b>	<b>418</b>	<b>96,303</b>
February .....	85,575	1,046	843	8,275	-7,432	-3,306	2,917	79,577
March .....	96,548	1,126	1,524	9,832	-8,308	3,991	6,608	78,767
April .....	88,563	996	1,136	8,843	-7,706	8,966	390	72,497
May .....	86,850	910	1,313	9,042	-7,730	2,393	-1,461	79,098
June .....	88,878	1,162	970	9,102	-8,132	-9,803	2,060	89,652
July .....	85,498	1,202	1,208	7,865	-6,657	-15,788	-3,788	99,618
August .....	95,495	1,181	1,545	9,387	-7,843	-10,739	1,809	97,762
September .....	94,013	1,117	835	8,723	-7,888	5,015	-113	82,341
October .....	94,643	1,078	917	9,159	-8,242	13,552	-1,334	75,261
November .....	94,109	1,133	807	8,808	-8,001	11,911	2,623	72,707
December .....	94,101	1,076	976	9,713	-8,737	5,698	1,377	79,365
<b>Total</b> .....	<b>1,095,628</b>	<b>13,209</b>	<b>13,088</b>	<b>107,259</b>	<b>-94,171</b>	<b>211</b>	<b>11,506</b>	<b>1,002,948</b>
<b>2012 January</b> .....	<b>94,944</b>	<b>1,068</b>	<b>789</b>	<b>9,126</b>	<b>-8,337</b>	<b>2,835</b>	<b>8,471</b>	<b>76,368</b>
February .....	85,763	891	534	8,460	-7,927	8,065	2,290	68,373
March .....	85,698	837	699	11,055	-10,356	9,722	3,389	63,068
April .....	77,624	746	623	12,529	-11,905	7,275	2,190	57,000
May .....	81,825	938	986	12,257	-11,271	479	2,835	68,178
June .....	81,911	905	719	12,749	-12,030	-5,264	-642	76,692
July .....	86,344	1,050	894	11,623	-10,729	-14,940	-21	91,626
August .....	90,839	992	667	10,597	-9,930	-7,248	1,170	87,979
September .....	81,846	800	855	9,344	-8,489	2,381	-2,617	74,394
October .....	86,744	F 999	868	9,421	-8,554	R 4,013	R 2,874	R 72,302
November .....	85,473	RF 1,039	798	8,516	-7,718	R 1,906	R 1,677	R 75,211
December .....	81,440	NA	NA	NA	NA	NA	NA	NA
<b>Total</b> .....	<b>1,020,451</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>
<b>2013 January</b> .....	<b>83,892</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>

<sup>a</sup> 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).

<sup>b</sup> 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."

<sup>c</sup> Net imports equal imports minus exports. A minus sign indicates exports are greater than imports.

<sup>d</sup> For 1980-2007, excludes coal stocks in the residential and commercial sectors.

<sup>e</sup> A negative value indicates a decrease in stocks; a positive value indicates an increase.

<sup>f</sup> 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 include refined coal. • 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> for all available data beginning in 1973.

Sources: See end of section.

**Table 6.2 Coal Consumption by Sector**  
(Thousand Short Tons)

	End-Use Sectors										Electric Power Sector <sup>e,f</sup>	Total
	Residential	Commercial			Coke Plants	Industrial			Total	Transportation		
		CHP <sup>a</sup>	Other <sup>b</sup>	Total		CHP <sup>c</sup>	Non-CHP <sup>d</sup>	Total				
<b>1973 Total</b> .....	4,113	( <sup>g</sup> )	7,004	7,004	94,101	( <sup>h</sup> )	68,038	68,038	162,139	116	389,212	562,584
<b>1975 Total</b> .....	2,823	( <sup>g</sup> )	6,587	6,587	83,598	( <sup>h</sup> )	63,646	63,646	147,244	24	405,962	562,640
<b>1980 Total</b> .....	1,355	( <sup>g</sup> )	5,097	5,097	66,657	( <sup>h</sup> )	60,347	60,347	127,004	( <sup>h</sup> )	569,274	702,730
<b>1985 Total</b> .....	1,711	( <sup>g</sup> )	6,068	6,068	41,056	( <sup>h</sup> )	75,372	75,372	116,429	( <sup>h</sup> )	693,841	818,049
<b>1990 Total</b> .....	1,345	1,191	4,189	5,379	38,877	27,781	48,549	76,330	115,207	( <sup>h</sup> )	782,567	904,498
<b>1995 Total</b> .....	755	1,419	3,633	5,052	33,011	29,363	43,693	73,055	106,067	( <sup>h</sup> )	850,230	962,104
<b>1996 Total</b> .....	721	1,660	3,625	5,285	31,706	29,434	42,254	71,689	103,395	( <sup>h</sup> )	896,921	1,006,321
<b>1997 Total</b> .....	711	1,738	4,015	5,752	30,203	29,853	41,661	71,515	101,718	( <sup>h</sup> )	921,364	1,029,544
<b>1998 Total</b> .....	534	1,443	2,879	4,322	28,189	28,553	38,887	67,439	95,628	( <sup>h</sup> )	936,619	1,037,103
<b>1999 Total</b> .....	585	1,490	2,803	4,293	28,108	27,763	36,975	64,738	92,846	( <sup>h</sup> )	940,922	1,038,647
<b>2000 Total</b> .....	454	1,547	2,226	3,673	28,939	28,031	37,177	65,208	94,147	( <sup>h</sup> )	985,821	1,084,095
<b>2001 Total</b> .....	481	1,448	2,441	3,888	26,075	25,755	39,514	65,268	91,344	( <sup>h</sup> )	964,433	1,060,146
<b>2002 Total</b> .....	533	1,405	2,506	3,912	23,656	26,232	34,515	60,747	84,403	( <sup>h</sup> )	977,507	1,066,355
<b>2003 Total</b> .....	551	1,816	1,869	3,685	24,248	24,846	36,415	61,261	85,509	( <sup>h</sup> )	1,005,116	1,094,861
<b>2004 Total</b> .....	512	1,917	2,693	4,610	23,670	26,613	35,582	62,195	85,865	( <sup>h</sup> )	1,016,268	1,107,255
<b>2005 Total</b> .....	378	1,922	2,420	4,342	23,434	25,875	34,465	60,340	83,774	( <sup>h</sup> )	1,037,485	1,125,978
<b>2006 Total</b> .....	290	1,886	1,050	2,936	22,957	25,262	34,210	59,472	82,429	( <sup>h</sup> )	1,026,636	1,112,292
<b>2007 Total</b> .....	353	1,927	1,247	3,173	22,715	22,537	34,078	56,615	79,331	( <sup>h</sup> )	1,045,141	1,127,998
<b>2008 Total</b> .....	351	2,021	1,134	3,155	22,070	21,902	32,491	54,393	76,463	( <sup>h</sup> )	1,040,580	1,120,548
<b>2009 Total</b> .....	321	1,798	1,091	2,889	15,326	19,766	25,549	45,314	60,641	( <sup>h</sup> )	933,627	997,478
<b>2010</b>												
January .....	39	193	160	353	1,472	2,094	2,084	4,178	5,650	( <sup>h</sup> )	90,452	96,494
February .....	34	167	139	306	1,584	1,978	2,215	4,193	5,777	( <sup>h</sup> )	79,884	86,001
March .....	30	149	124	274	1,801	2,124	2,106	4,230	6,030	( <sup>h</sup> )	76,110	82,444
April .....	19	117	56	173	1,786	2,220	1,749	3,969	5,755	( <sup>h</sup> )	66,842	72,790
May .....	19	118	57	175	1,794	2,010	1,975	3,985	5,779	( <sup>h</sup> )	75,597	81,570
June .....	22	135	65	199	1,772	1,898	2,061	3,959	5,732	( <sup>h</sup> )	87,030	92,983
July .....	21	142	51	192	1,783	2,122	1,944	4,066	5,849	( <sup>h</sup> )	94,519	100,582
August .....	23	152	54	206	1,814	2,194	1,909	4,103	5,917	( <sup>h</sup> )	94,247	100,393
September .....	20	133	47	180	1,894	1,941	2,174	4,115	6,010	( <sup>h</sup> )	79,176	85,386
October .....	23	121	88	209	1,731	1,958	2,178	4,136	5,866	( <sup>h</sup> )	70,492	76,591
November .....	24	128	93	220	1,787	1,854	2,297	4,151	5,938	( <sup>h</sup> )	72,514	78,697
December .....	32	165	119	284	1,874	2,246	1,957	4,203	6,077	( <sup>h</sup> )	88,189	94,582
<b>Total</b> .....	<b>308</b>	<b>1,720</b>	<b>1,053</b>	<b>2,772</b>	<b>21,092</b>	<b>24,638</b>	<b>24,650</b>	<b>49,289</b>	<b>70,381</b>	( <sup>h</sup> )	<b>975,052</b>	<b>1,048,514</b>
<b>2011</b>												
January .....	33	189	143	332	1,746	2,082	2,090	4,172	5,917	( <sup>h</sup> )	90,021	96,303
February .....	30	173	131	304	1,623	1,800	2,345	4,145	5,769	( <sup>h</sup> )	73,474	79,577
March .....	29	164	124	289	1,819	1,891	2,281	4,173	5,991	( <sup>h</sup> )	72,458	78,767
April .....	19	124	68	191	1,668	1,787	1,902	3,689	5,357	( <sup>h</sup> )	66,930	72,497
May .....	19	124	68	192	1,878	1,836	1,836	3,672	5,550	( <sup>h</sup> )	73,338	79,098
June .....	20	130	71	202	1,846	1,843	1,833	3,676	5,522	( <sup>h</sup> )	83,908	89,652
July .....	17	145	31	176	1,670	1,946	1,772	3,718	5,388	( <sup>h</sup> )	94,037	99,618
August .....	16	129	28	157	1,863	1,962	1,753	3,715	5,578	( <sup>h</sup> )	92,012	97,762
September .....	15	122	26	148	1,874	1,788	1,947	3,735	5,609	( <sup>h</sup> )	76,569	82,341
October .....	16	110	55	165	1,784	1,748	2,088	3,836	5,621	( <sup>h</sup> )	69,458	75,261
November .....	17	117	59	177	1,772	1,712	2,110	3,822	5,594	( <sup>h</sup> )	66,919	72,707
December .....	21	139	70	209	1,891	1,923	1,962	3,885	5,776	( <sup>h</sup> )	73,359	79,365
<b>Total</b> .....	<b>251</b>	<b>1,668</b>	<b>874</b>	<b>2,541</b>	<b>21,434</b>	<b>22,319</b>	<b>23,919</b>	<b>46,238</b>	<b>67,671</b>	( <sup>h</sup> )	<b>932,484</b>	<b>1,002,948</b>
<b>2012</b>												
January .....	20	162	69	231	1,701	1,913	1,783	3,696	5,397	( <sup>h</sup> )	70,720	76,368
February .....	18	141	64	205	1,687	1,708	2,000	3,708	5,395	( <sup>h</sup> )	62,755	68,373
March .....	17	135	62	196	1,895	1,707	1,952	3,659	5,554	( <sup>h</sup> )	57,300	63,068
April .....	11	115	10	125	1,783	1,542	1,789	3,331	5,113	( <sup>h</sup> )	51,751	57,000
May .....	11	121	11	132	1,857	1,689	1,621	3,310	5,167	( <sup>h</sup> )	62,868	68,178
June .....	11	114	10	124	1,657	1,634	1,671	3,305	4,962	( <sup>h</sup> )	71,595	76,692
July .....	10	118	1	119	1,676	1,773	1,619	3,392	5,068	( <sup>h</sup> )	86,429	91,626
August .....	11	126	1	127	1,816	1,827	1,555	3,382	5,198	( <sup>h</sup> )	82,643	87,979
September .....	10	116	1	117	1,552	1,613	1,781	3,394	4,946	( <sup>h</sup> )	69,321	74,394
October .....	RF 20	115	RF 113	RF 227	RF 1,806	1,796	RF 1,888	RF 3,684	RF 5,490	( <sup>h</sup> )	66,565	R 72,302
November .....	F 31	134	F 221	F 356	F 1,317	1,728	F 1,982	F 3,709	F 5,026	( <sup>h</sup> )	69,798	75,211
<b>11-Month Total</b> .....	<b>E 170</b>	<b>1,397</b>	<b>E 561</b>	<b>E 1,958</b>	<b>E 18,746</b>	<b>18,928</b>	<b>E 19,641</b>	<b>E 38,569</b>	<b>E 57,315</b>	( <sup>h</sup> )	<b>751,746</b>	<b>811,190</b>
<b>2011 11-Month Total</b> .....	<b>231</b>	<b>1,529</b>	<b>804</b>	<b>2,332</b>	<b>19,543</b>	<b>20,395</b>	<b>21,957</b>	<b>42,352</b>	<b>61,896</b>	( <sup>h</sup> )	<b>859,125</b>	<b>923,583</b>
<b>2010 11-Month Total</b> .....	<b>276</b>	<b>1,555</b>	<b>933</b>	<b>2,488</b>	<b>19,219</b>	<b>22,392</b>	<b>22,693</b>	<b>45,085</b>	<b>64,304</b>	( <sup>h</sup> )	<b>886,863</b>	<b>953,932</b>

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

<sup>b</sup> All commercial sector fuel use other than that in "Commercial CHP."

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

<sup>d</sup> All industrial sector fuel use other than that in "Coke Plants" and "Industrial CHP."

<sup>e</sup> 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.

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

<sup>g</sup> Included in "Commercial Other."

<sup>h</sup> Included in "Industrial Non-CHP."

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

Notes: • CHP monthly values are from Table 7.4c; electric power sector monthly values are from Table 7.4b; all other monthly values are estimates derived from collected quarterly and annual data. See Note 2, "Coal Consumption," at end of section. • Data include refined coal. • 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> for all available data beginning in 1973.

Sources: See end of section.

**Table 6.3 Coal Stocks by Sector**  
(Thousand Short Tons)

	Producers and Distributors	End-Use Sectors					Electric Power Sector <sup>b,c</sup>	Total
		Residential and Commercial	Industrial			Total		
			Coke Plants	Other <sup>a</sup>	Total			
1973 Year	12,530	290	6,998	10,370	17,368	17,658	86,967	117,155
1975 Year	12,108	233	8,797	8,529	17,326	17,559	110,724	140,391
1980 Year	24,379	NA	9,067	11,951	21,018	21,018	183,010	228,407
1985 Year	33,133	NA	3,420	10,438	13,857	13,857	156,376	203,367
1990 Year	33,418	NA	3,329	8,716	12,044	12,044	156,166	201,629
1995 Year	34,444	NA	2,632	5,702	8,334	8,334	126,304	169,083
1996 Year	28,648	NA	2,667	5,688	8,355	8,355	114,623	151,627
1997 Year	33,973	NA	1,978	5,597	7,576	7,576	98,826	140,374
1998 Year	36,530	NA	2,026	5,545	7,571	7,571	120,501	164,602
1999 Year	39,475	NA	1,943	5,569	7,511	7,511	<sup>c</sup> 141,604	188,590
2000 Year	31,905	NA	1,494	4,587	6,081	6,081	102,296	140,282
2001 Year	35,900	NA	1,510	6,006	7,516	7,516	138,496	181,912
2002 Year	43,257	NA	1,364	5,792	7,156	7,156	141,714	192,127
2003 Year	38,277	NA	905	4,718	5,623	5,623	121,567	165,468
2004 Year	41,151	NA	1,344	4,842	6,186	6,186	106,669	154,006
2005 Year	34,971	NA	2,615	5,582	8,196	8,196	101,137	144,304
2006 Year	36,548	NA	2,928	6,506	9,434	9,434	140,964	186,946
2007 Year	33,977	NA	1,936	5,624	7,560	7,560	151,221	192,758
2008 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
<b>2010</b> January	48,854	510	1,832	4,798	6,630	7,140	178,091	234,085
February	49,069	490	1,708	4,486	6,194	6,684	171,026	226,779
March	50,936	471	1,583	4,175	5,758	6,229	177,742	234,906
April	50,761	482	1,715	4,207	5,922	6,404	189,260	246,425
May	50,900	494	1,846	4,239	6,086	6,579	191,669	249,148
June	51,497	505	1,978	4,272	6,250	6,755	181,490	239,741
July	47,935	509	1,948	4,345	6,294	6,803	169,504	224,242
August	48,638	513	1,918	4,419	6,337	6,851	159,987	215,476
September	49,913	517	1,889	4,492	6,381	6,899	163,776	220,587
October	49,430	529	1,901	4,503	6,404	6,933	175,686	232,050
November	50,571	541	1,913	4,514	6,428	6,968	183,389	240,928
December	<b>49,820</b>	<b>552</b>	<b>1,925</b>	<b>4,525</b>	<b>6,451</b>	<b>7,003</b>	<b>174,917</b>	<b>231,740</b>
<b>2011</b> January	48,709	536	1,937	4,305	6,241	6,777	164,575	220,061
February	49,140	520	1,948	4,084	6,032	6,552	161,064	216,755
March	48,165	503	1,959	3,864	5,823	6,326	166,255	220,746
April	49,852	505	1,958	3,969	5,927	6,433	173,427	229,712
May	51,473	508	1,957	4,075	6,032	6,539	174,093	232,105
June	50,507	510	1,956	4,181	6,136	6,646	165,149	222,302
July	52,420	513	2,082	4,203	6,285	6,798	147,296	206,514
August	50,287	515	2,221	4,225	6,446	6,961	138,527	195,775
September	49,909	518	2,405	4,247	6,652	7,170	143,711	200,790
October	50,810	546	2,473	4,316	6,790	7,336	156,196	214,342
November	50,997	575	2,541	4,386	6,927	7,502	167,754	226,253
December	<b>51,897</b>	<b>603</b>	<b>2,610</b>	<b>4,455</b>	<b>7,065</b>	<b>7,668</b>	<b>172,387</b>	<b>231,951</b>
<b>2012</b> January	<sup>F</sup> 48,424	587	2,507	4,238	6,745	7,332	179,030	234,787
February	<sup>F</sup> 49,954	572	2,403	4,021	6,425	6,997	185,901	242,852
March	<sup>F</sup> 51,458	557	2,300	3,804	6,105	6,661	194,455	252,574
April	<sup>F</sup> 51,705	566	2,299	3,911	6,210	6,776	201,368	259,849
May	<sup>F</sup> 51,253	575	2,297	4,018	6,315	6,891	202,184	260,328
June	<sup>F</sup> 51,007	585	2,295	4,125	6,420	7,005	197,052	255,064
July	<sup>F</sup> 49,859	589	2,329	4,228	6,557	7,146	183,119	240,124
August	<sup>F</sup> 48,343	592	2,363	4,332	6,694	7,287	177,246	232,875
September	<sup>F</sup> 47,181	596	2,396	4,435	6,831	7,427	180,648	235,256
October	<sup>F</sup> 46,885	<sup>RF</sup> 587	<sup>RF</sup> 2,210	<sup>RF</sup> 4,925	<sup>RF</sup> 7,135	<sup>RF</sup> 7,722	184,661	<sup>R</sup> 239,269
November	<sup>F</sup> 46,711	<sup>F</sup> 587	<sup>F</sup> 2,192	<sup>F</sup> 5,051	<sup>F</sup> 7,243	<sup>F</sup> 7,830	186,633	241,174

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

<sup>b</sup> 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.

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

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

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

are from Table 7.5; producers and distributors monthly values are estimates derived from collected annual data; all other monthly values are estimates derived from collected quarterly values. • Data include refined coal. • 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> for all available data beginning in 1973.

Sources: See end of section.

## Coal

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

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

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

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

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

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

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

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

**Industrial Other—**Prior to 1978, monthly consumption data for the other industrial sector (all industrial users minus coke plants) were derived by using reported data to modify baseline consumption figures from the most recent Bureau of the Census Annual Survey of Manufactures or Census of Manufactures. For 1978 and 1979, monthly estimates were derived from data reported on Forms EIA-3 and EIA-6. For 1980–1987, monthly figures were estimated by proportioning quarterly data by using the ratios of monthly-to-quarterly consumption data in 1979, the last year in which monthly data were reported on Form EIA-3. Beginning in January 1988, monthly consumption for the other industrial sector is estimated from reported quarterly data by using ratios derived from industrial production indices published by the Board of Governors of the Federal Reserve System. Indices for six major industry groups are used as the basis for calculating the ratios:



food manufacturing, which is North American Industry Classification System (NAICS) code 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. Prior to 2008, quarterly consumption data for the other industrial sector were derived by adding beginning stocks at manufacturing plants to current receipts and subtracting ending stocks at manufacturing plants. In this calculation, current receipts are the greater of either reported receipts from manufacturing plants (Form EIA-3) or reported shipments to the other industrial sector (Form EIA-6), thereby ensuring that agriculture, forestry, fishing, and construction consumption data were included where appropriate. Beginning in 2008, quarterly consumption totals for other industrial coal include data for manufacturing and mining only. Over time, surveyed coal consumption data for agriculture, forestry, fishing, and construction dwindled to about 20,000 to 30,000 tons annually. Therefore, in 2008, EIA consolidated its programs by eliminating agriculture, forestry, fishing, and construction as surveyed sectors.

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

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

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

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

Industrial Coke Plants—Prior to 1980, monthly stocks at coke plants were taken directly from reported data. Beginning in 1980, coke plant stocks are estimated by using one-third of the current quarterly change to indicate the monthly

change in stocks. Quarterly stocks are taken directly from data reported on Form EIA-5.

Industrial Other—Prior to 1978, stocks for the other industrial sector were derived by using reported data to modify baseline figures from a one-time Bureau of Mines survey of consumers. For 1978–1982, monthly estimates were derived by judgmentally proportioning reported quarterly data based on representative seasonal patterns of supply and demand. Beginning in 1983, other industrial coal stocks are estimated as indicated above for coke plants. Quarterly stocks are taken directly from data reported on Form EIA-3 and therefore include only manufacturing industries; data for agriculture, forestry, fishing, mining, and construction stocks are not available.

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

**Note 4. Coal Forecast Values.** Data values preceded by “F” in this section are forecast values. They are derived from EIA 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/>.

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

## Table 6.1 Sources

### Production

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

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

### Waste Coal Supplied

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

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

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

2004–2007: EIA, Form EIA-906, “Power Plant Report,”

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

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

### Imports and Exports

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

### Stock Change

Calculated from data in Table 6.3. (The 1973 stock change value is calculated using the 1972 total stocks value of 116,753 thousand short tons from EIA, *Annual Energy Review 2011*, Table 7.6. The 1972 stocks value excludes stocks at producers and distributors.)

### Losses and Unaccounted for

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

### Consumption

Table 6.2.

## Table 6.2 Sources

### Residential and Commercial Total

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

1973–1976: U.S. Department of the Interior (DOI), Bureau of Mines (BOM), *Minerals Yearbook*.

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

October 1977–1979: EIA, Form EIA-2, “Monthly Coal Report, Retail Dealers—Upper Lake Docks.”

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

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

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

### Commercial CHP

Table 7.4c.

### Commercial Other

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

### Industrial Coke Plants

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

October 1977–1980: EIA, Form EIA-5/5A, “Coke and Coal Chemicals—Monthly/Annual Supplement.”

1981–1984: EIA, Form EIA-5/5A, “Coke Plant Report—Quarterly/Annual Supplement.”

1985 forward: EIA, Form EIA-5, “Coke Plant Report—Quarterly”; and, for forecast values, EIA, STIFS.

### Other Industrial Total

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

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

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

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

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

### Other Industrial CHP

Table 7.4c.

### Other Industrial Non-CHP

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

### Transportation

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

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

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

### Electric Power

Table 7.4b.

## Table 6.3 Sources

### Producers and Distributors

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

1980–1997: U.S. Energy Information Administration (EIA), Form EIA-6, “Coal Distribution Report,” quarterly.

1998–2007: EIA, Form EIA-6A, “Coal Distribution Report,” annual.

2008 forward: EIA, Form EIA-7A, “Coal Production Report,” annual, and Form EIA-8A, “Coal Stocks Report,” annual; and, for forecast values, EIA, Short-Term Integrated Forecasting System (STIFS).

#### **Residential and Commercial**

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

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

October 1977–1979: EIA, Form EIA-2, “Monthly Coal Report, Retail Dealers—Upper Lake Docks.”

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

#### **Industrial Coke Plants**

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

October 1977–1980: EIA, Form EIA-5/5A, “Coke and Coal

Chemicals—Monthly/Annual.”

1981–1984: EIA, Form EIA 5/5A, “Coke Plant Report—Quarterly/Annual Supplement.”

1985 forward: EIA, Form EIA-5, “Coke Plant Report—Quarterly”; and, for forecast values, EIA, STIFS.

#### **Industrial Other**

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

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

1998–2007: EIA, Form EIA-3, “Quarterly Coal Consumption Report—Manufacturing Plants.”

2008 forward: EIA, Form EIA-3, “Quarterly Coal Consumption and Quality Report, Manufacturing and Transformation/Processing Coal Plants and Commercial and Institutional Coal Users”; and, for forecast values, EIA, STIFS.

#### **Electric Power**

Table 7.5.

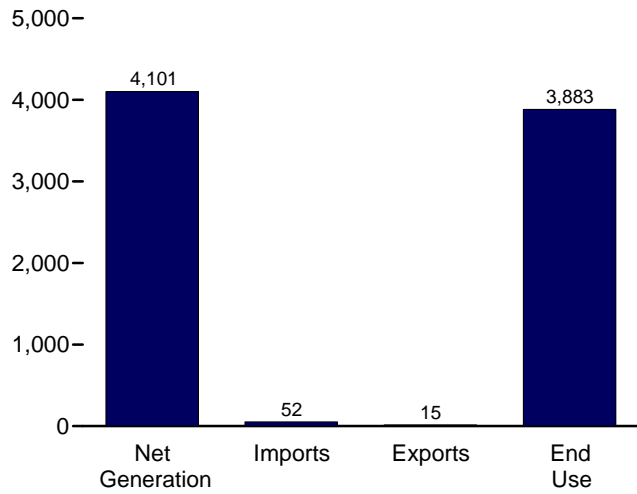
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## 7. Electricity

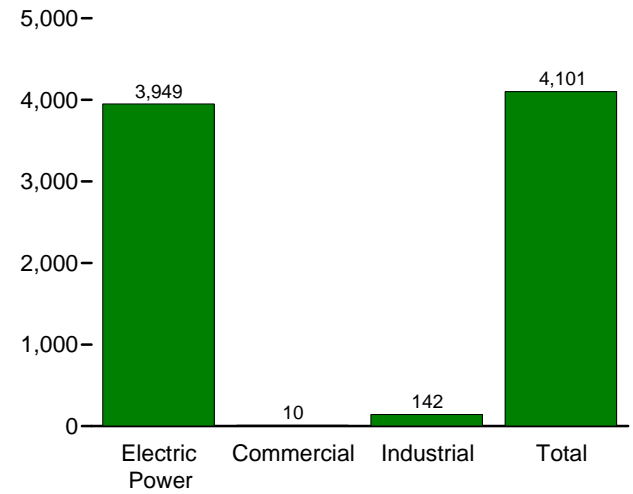
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**Figure 7.1 Electricity Overview**  
(Billion Kilowatthours)

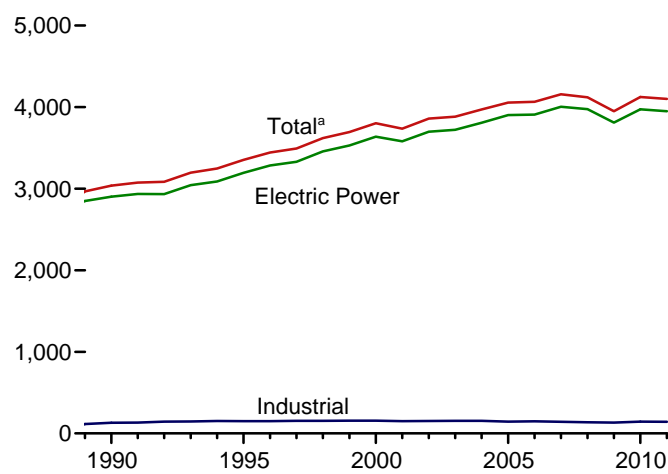
Overview, 2011



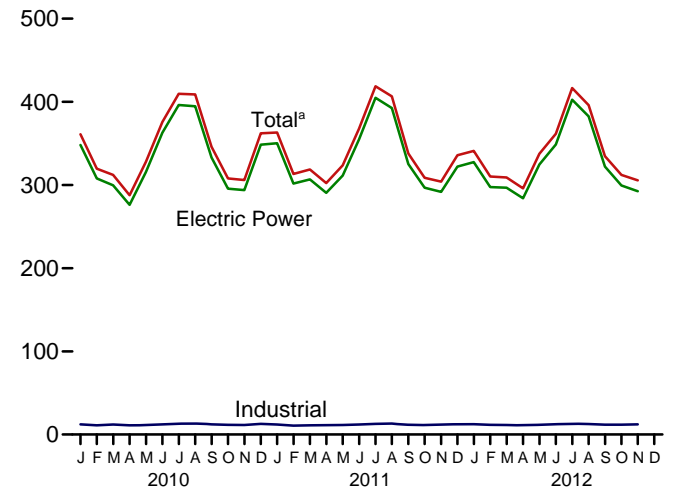
Net Generation, 2011



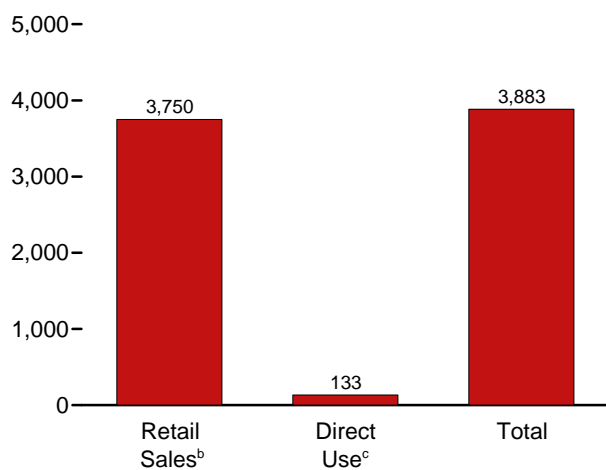
Net Generation by Sector, 1989-2011



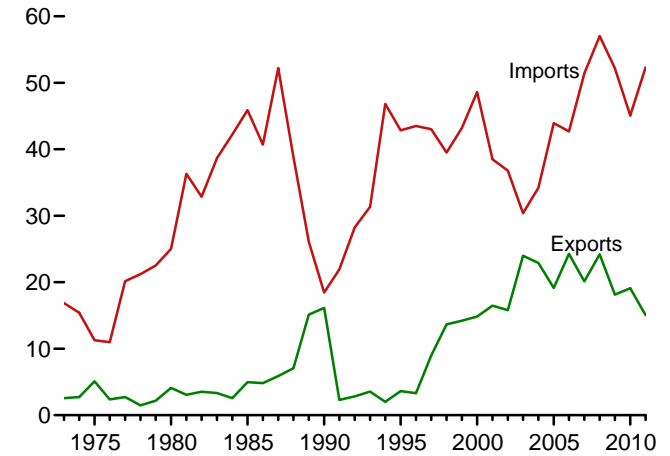
Net Generation by Sector, Monthly



End Use, 2011



Trade, 1973-2011



<sup>a</sup> Includes commercial sector.  
<sup>b</sup> Electricity retail sales to ultimate customers reported by electric utilities and other energy service providers.

<sup>c</sup> See "Direct Use" in Glossary.  
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 <sup>e</sup> and Unaccounted for <sup>f</sup>	End Use		
	Electric Power Sector <sup>a</sup>	Com- mercial Sector <sup>b</sup>	Indus- trial Sector <sup>c</sup>	Total	Imports <sup>d</sup>	Exports <sup>d</sup>	Net Imports <sup>d</sup>		Retail Sales <sup>g</sup>	Direct Use <sup>h</sup>	Total
<b>1973 Total</b> .....	<b>1,861</b>	<b>NA</b>	<b>3</b>	<b>1,864</b>	<b>17</b>	<b>3</b>	<b>14</b>	<b>165</b>	<b>1,713</b>	<b>NA</b>	<b>1,713</b>
<b>1975 Total</b> .....	<b>1,918</b>	<b>NA</b>	<b>3</b>	<b>1,921</b>	<b>11</b>	<b>5</b>	<b>6</b>	<b>180</b>	<b>1,747</b>	<b>NA</b>	<b>1,747</b>
<b>1980 Total</b> .....	<b>2,286</b>	<b>NA</b>	<b>3</b>	<b>2,290</b>	<b>25</b>	<b>4</b>	<b>21</b>	<b>216</b>	<b>2,094</b>	<b>NA</b>	<b>2,094</b>
<b>1985 Total</b> .....	<b>2,470</b>	<b>NA</b>	<b>3</b>	<b>2,473</b>	<b>46</b>	<b>5</b>	<b>41</b>	<b>190</b>	<b>2,324</b>	<b>NA</b>	<b>2,324</b>
<b>1990 Total</b> .....	<b>2,901</b>	<b>6</b>	<b>131</b>	<b>3,038</b>	<b>18</b>	<b>16</b>	<b>2</b>	<b>203</b>	<b>2,713</b>	<b>125</b>	<b>2,837</b>
<b>1995 Total</b> .....	<b>3,194</b>	<b>8</b>	<b>151</b>	<b>3,353</b>	<b>43</b>	<b>4</b>	<b>39</b>	<b>229</b>	<b>3,013</b>	<b>151</b>	<b>3,164</b>
<b>1996 Total</b> .....	<b>3,284</b>	<b>9</b>	<b>151</b>	<b>3,444</b>	<b>43</b>	<b>3</b>	<b>40</b>	<b>231</b>	<b>3,101</b>	<b>153</b>	<b>3,254</b>
<b>1997 Total</b> .....	<b>3,329</b>	<b>9</b>	<b>154</b>	<b>3,492</b>	<b>43</b>	<b>9</b>	<b>34</b>	<b>224</b>	<b>3,146</b>	<b>156</b>	<b>3,302</b>
<b>1998 Total</b> .....	<b>3,457</b>	<b>9</b>	<b>154</b>	<b>3,620</b>	<b>40</b>	<b>14</b>	<b>26</b>	<b>221</b>	<b>3,264</b>	<b>161</b>	<b>3,425</b>
<b>1999 Total</b> .....	<b>3,530</b>	<b>9</b>	<b>156</b>	<b>3,695</b>	<b>43</b>	<b>14</b>	<b>29</b>	<b>240</b>	<b>3,312</b>	<b>172</b>	<b>3,484</b>
<b>2000 Total</b> .....	<b>3,638</b>	<b>8</b>	<b>157</b>	<b>3,802</b>	<b>49</b>	<b>15</b>	<b>34</b>	<b>244</b>	<b>3,421</b>	<b>171</b>	<b>3,592</b>
<b>2001 Total</b> .....	<b>3,580</b>	<b>7</b>	<b>149</b>	<b>3,737</b>	<b>39</b>	<b>16</b>	<b>22</b>	<b>202</b>	<b>3,394</b>	<b>163</b>	<b>3,557</b>
<b>2002 Total</b> .....	<b>3,698</b>	<b>7</b>	<b>153</b>	<b>3,852</b>	<b>37</b>	<b>16</b>	<b>21</b>	<b>248</b>	<b>3,465</b>	<b>166</b>	<b>3,632</b>
<b>2003 Total</b> .....	<b>3,721</b>	<b>7</b>	<b>155</b>	<b>3,883</b>	<b>30</b>	<b>24</b>	<b>6</b>	<b>228</b>	<b>3,494</b>	<b>168</b>	<b>3,662</b>
<b>2004 Total</b> .....	<b>3,808</b>	<b>8</b>	<b>154</b>	<b>3,971</b>	<b>34</b>	<b>23</b>	<b>11</b>	<b>266</b>	<b>3,547</b>	<b>168</b>	<b>3,716</b>
<b>2005 Total</b> .....	<b>3,902</b>	<b>8</b>	<b>145</b>	<b>4,055</b>	<b>44</b>	<b>19</b>	<b>25</b>	<b>269</b>	<b>3,661</b>	<b>150</b>	<b>3,811</b>
<b>2006 Total</b> .....	<b>3,908</b>	<b>8</b>	<b>148</b>	<b>4,065</b>	<b>43</b>	<b>24</b>	<b>18</b>	<b>266</b>	<b>3,670</b>	<b>147</b>	<b>3,817</b>
<b>2007 Total</b> .....	<b>4,005</b>	<b>8</b>	<b>143</b>	<b>4,157</b>	<b>51</b>	<b>20</b>	<b>31</b>	<b>298</b>	<b>3,765</b>	<b>126</b>	<b>3,890</b>
<b>2008 Total</b> .....	<b>3,974</b>	<b>8</b>	<b>137</b>	<b>4,119</b>	<b>57</b>	<b>24</b>	<b>33</b>	<b>287</b>	<b>3,733</b>	<b>132</b>	<b>3,865</b>
<b>2009 Total</b> .....	<b>3,810</b>	<b>8</b>	<b>132</b>	<b>3,950</b>	<b>52</b>	<b>18</b>	<b>34</b>	<b>261</b>	<b>3,597</b>	<b>127</b>	<b>3,724</b>
<b>2010 January</b> .....	<b>348</b>	<b>1</b>	<b>12</b>	<b>361</b>	<b>5</b>	<b>1</b>	<b>4</b>	<b>22</b>	<b>332</b>	<b>E 11</b>	<b>343</b>
February .....	308	1	11	320	4	1	3	15	298	E 10	309
March .....	300	1	12	312	4	1	3	12	293	E 11	303
April .....	276	1	11	288	4	1	3	13	267	E 10	277
May .....	316	1	12	328	3	2	1	35	284	E 11	294
June .....	363	1	12	376	4	2	2	36	331	E 11	342
July .....	396	1	13	410	4	1	3	32	369	E 12	381
August .....	395	1	13	409	4	2	2	27	372	E 12	384
September .....	333	1	12	346	3	2	1	8	328	E 11	339
October .....	296	1	12	308	3	2	(s)	10	288	E 11	298
November .....	294	1	11	306	3	2	1	21	275	E 11	285
December .....	349	1	13	362	4	1	3	34	319	E 12	331
<b>Total</b> .....	<b>3,972</b>	<b>9</b>	<b>144</b>	<b>4,125</b>	<b>45</b>	<b>19</b>	<b>26</b>	<b>265</b>	<b>3,754</b>	<b>132</b>	<b>3,886</b>
<b>2011 January</b> .....	<b>350</b>	<b>1</b>	<b>12</b>	<b>363</b>	<b>4</b>	<b>2</b>	<b>3</b>	<b>20</b>	<b>334</b>	<b>E 11</b>	<b>345</b>
February .....	302	1	11	313	4	2	2	9	297	E 10	307
March .....	307	1	11	319	4	2	2	19	292	E 10	302
April .....	291	1	11	302	4	2	2	19	275	E 10	286
May .....	311	1	11	324	5	1	4	29	288	E 11	299
June .....	355	1	12	368	4	1	3	31	329	E 11	340
July .....	405	1	13	419	6	1	5	41	371	E 12	383
August .....	392	1	13	407	6	1	5	26	373	E 12	385
September .....	325	1	12	338	4	1	3	4	326	E 11	337
October .....	297	1	11	309	4	1	3	13	288	E 11	299
November .....	292	1	12	304	3	1	2	20	275	E 11	286
December .....	322	1	13	336	4	1	3	26	302	E 12	314
<b>Total</b> .....	<b>3,949</b>	<b>10</b>	<b>142</b>	<b>4,101</b>	<b>52</b>	<b>15</b>	<b>37</b>	<b>255</b>	<b>3,750</b>	<b>133</b>	<b>3,883</b>
<b>2012 January</b> .....	<b>328</b>	<b>1</b>	<b>12</b>	<b>341</b>	<b>4</b>	<b>1</b>	<b>3</b>	<b>22</b>	<b>311</b>	<b>E 12</b>	<b>323</b>
February .....	298	1	12	310	4	1	3	16	286	E 11	297
March .....	297	1	11	309	4	1	3	19	283	E 11	293
April .....	284	1	11	296	5	1	4	19	270	E 10	281
May .....	325	1	12	338	5	1	4	35	295	E 11	307
June .....	349	1	12	362	5	1	4	30	324	E 11	336
July .....	403	1	13	417	7	1	6	40	370	E 12	382
August .....	383	1	13	396	6	1	5	26	364	E 12	376
September .....	322	1	12	335	5	1	4	10	318	E 11	329
October .....	299	1	12	312	4	1	4	15	290	E 11	301
November .....	293	1	12	306	5	1	4	19	279	E 11	291
<b>11-Month Total</b> ...	<b>3,578</b>	<b>10</b>	<b>132</b>	<b>3,720</b>	<b>55</b>	<b>11</b>	<b>44</b>	<b>249</b>	<b>3,391</b>	<b>E 124</b>	<b>3,515</b>
<b>2011 11-Month Total</b> ...	<b>3,626</b>	<b>9</b>	<b>129</b>	<b>3,765</b>	<b>48</b>	<b>14</b>	<b>34</b>	<b>230</b>	<b>3,448</b>	<b>E 121</b>	<b>3,569</b>
<b>2010 11-Month Total</b> ...	<b>3,624</b>	<b>8</b>	<b>131</b>	<b>3,763</b>	<b>41</b>	<b>18</b>	<b>23</b>	<b>231</b>	<b>3,436</b>	<b>E 120</b>	<b>3,556</b>

<sup>a</sup> 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.

<sup>b</sup> Commercial combined-heat-and-power (CHP) and commercial electricity-only plants.

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

<sup>d</sup> Electricity transmitted across U.S. borders. Net imports equal imports minus exports.

<sup>e</sup> 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.

<sup>f</sup> Data collection frame differences and nonsampling error.

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

<sup>h</sup> 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.

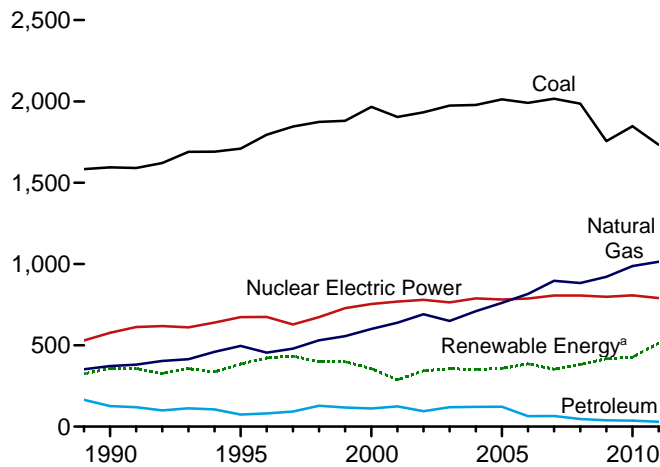
Notes: • See Note, "Classification of Power Plants Into Energy-Use Sectors," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#electricity> for all available data beginning in 1973.

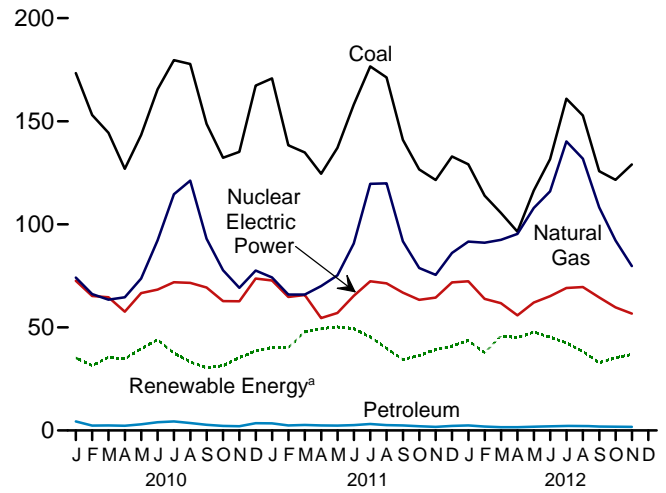
Sources: See end of section.

**Figure 7.2 Electricity Net Generation**  
(Billion Kilowatthours)

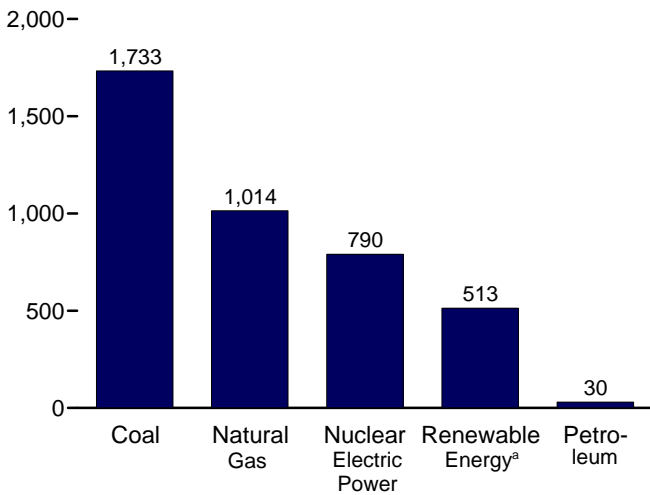
Total (All Sectors), Major Sources, 1989-2011



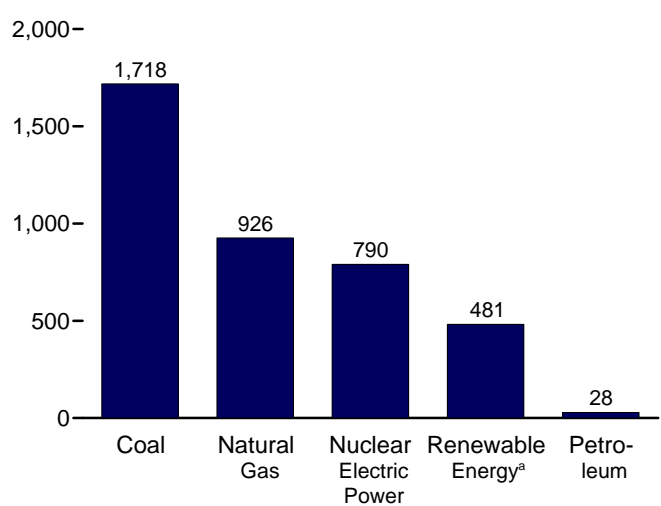
Total (All Sectors), Major Sources, Monthly



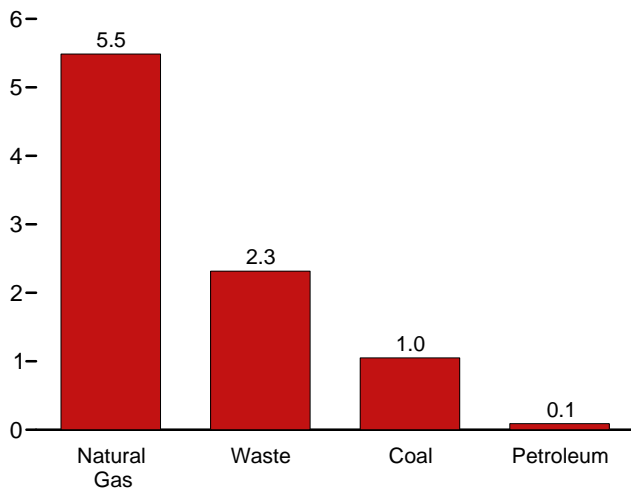
Total (All Sectors), Major Sources, 2011



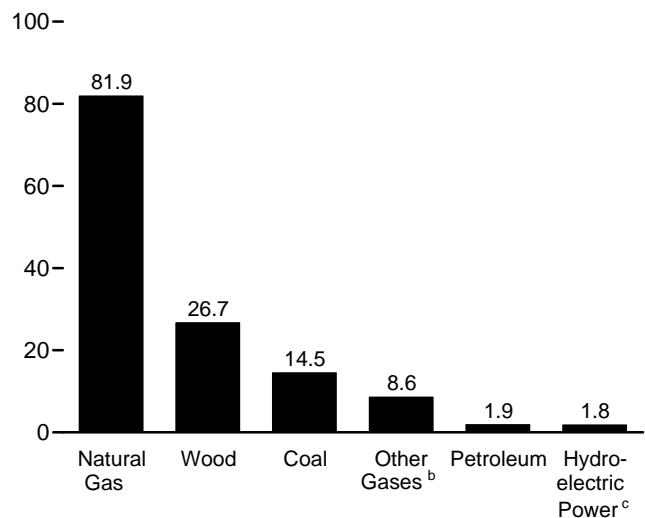
Electric Power Sector, Major Sources, 2011



Commercial Sector, Major Sources, 2011



Industrial Sector, Major Sources, 2011



<sup>a</sup> Conventional hydroelectric power, wood, waste, geothermal, solar/PV, and wind.

<sup>b</sup> Blast furnace gas, and other manufactured and waste gases derived from fossil fuels.

<sup>c</sup> Conventional hydroelectric power.

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



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

	Fossil Fuels				Nuclear Electric Power	Hydro-electric Pumped Storage <sup>e</sup>	Renewable Energy					Total <sup>j</sup>	
	Coal <sup>a</sup>	Petroleum <sup>b</sup>	Natural Gas <sup>c</sup>	Other Gases <sup>d</sup>			Conventional Hydro-electric Power <sup>f</sup>	Biomass		Geo-thermal	Solar/PV <sup>i</sup>		Wind
								Wood <sup>g</sup>	Waste <sup>h</sup>				
<b>1973 Total</b>	847,651	314,343	340,858	NA	83,479	( )	275,431	130	198	1,966	NA	NA	1,864,057
<b>1975 Total</b>	852,786	289,095	299,778	NA	172,505	( )	303,153	18	174	3,246	NA	NA	1,920,755
<b>1980 Total</b>	1,161,562	245,994	346,240	NA	251,116	( )	279,182	275	158	5,073	NA	NA	2,289,600
<b>1985 Total</b>	1,402,128	100,202	291,946	NA	383,691	( )	284,311	743	640	9,325	11	6	2,473,002
<b>1990 Total</b> <sup>k</sup>	1,594,011	126,460	372,765	10,383	576,862	-3,508	292,866	32,522	13,260	15,434	367	2,789	3,037,827
<b>1995 Total</b>	1,709,426	74,554	496,058	13,870	673,402	-2,725	310,833	36,521	20,405	13,378	497	3,164	3,353,487
<b>1996 Total</b>	1,795,196	81,411	455,056	14,356	674,729	-3,088	347,162	36,800	20,911	14,329	521	3,234	3,444,188
<b>1997 Total</b>	1,845,016	92,555	479,399	13,351	628,644	-4,040	356,453	36,948	21,709	14,726	511	3,288	3,492,172
<b>1998 Total</b>	1,873,516	128,800	531,257	13,492	673,702	-4,467	323,336	36,338	22,448	14,774	502	3,026	3,620,295
<b>1999 Total</b>	1,881,087	118,061	556,396	14,126	728,254	-6,097	319,536	37,041	22,572	14,827	495	4,488	3,694,810
<b>2000 Total</b>	1,966,265	111,221	601,038	13,955	753,893	-5,539	275,573	37,595	23,131	14,093	493	5,593	3,802,105
<b>2001 Total</b>	1,903,956	124,880	639,129	9,039	768,826	-8,823	216,961	35,200	14,548	13,741	543	6,737	3,736,644
<b>2002 Total</b>	1,933,130	94,567	691,006	11,463	780,064	-8,743	264,329	38,665	15,044	14,491	555	10,354	3,858,452
<b>2003 Total</b>	1,973,737	119,406	649,908	15,600	763,733	-8,535	275,806	37,529	15,812	14,424	534	11,187	3,883,185
<b>2004 Total</b>	1,978,301	121,145	710,100	15,252	788,528	-8,488	268,417	38,117	15,421	14,811	575	14,144	3,970,555
<b>2005 Total</b>	2,012,873	122,225	760,960	13,464	781,986	-6,558	270,321	38,856	15,420	14,692	550	17,811	4,055,423
<b>2006 Total</b>	1,990,511	64,166	816,441	14,177	787,219	-6,558	289,246	38,762	16,099	14,568	508	26,589	4,064,702
<b>2007 Total</b>	2,016,456	65,739	896,590	13,453	806,425	-6,896	247,510	39,014	16,525	14,637	612	34,450	4,156,745
<b>2008 Total</b>	1,985,801	46,243	882,981	11,707	806,208	-6,288	254,831	37,300	17,734	14,840	864	55,363	4,119,388
<b>2009 Total</b>	1,755,904	38,937	920,979	10,632	798,855	-4,627	273,445	36,050	18,443	15,009	891	73,886	3,950,331
<b>2010 Total</b>	1,847,290	37,061	987,697	11,313	806,968	-5,501	260,203	37,172	18,917	15,219	1,212	94,652	4,125,060
<b>2011 Total</b>	1,733,430	30,182	1,013,689	11,566	790,204	-5,905	319,355	37,449	19,222	15,316	1,818	120,177	4,100,656
<b>2012 Total</b>	1,382,973	21,143	1,146,605	10,354	700,748	-4,108	253,287	34,190	18,263	15,332	4,084	125,914	3,720,150
<b>2011 11-Month Total</b>	1,600,501	27,997	927,567	10,561	718,367	-5,409	295,623	34,096	17,491	13,992	1,697	109,521	3,764,903
<b>2010 11-Month Total</b>	1,680,032	33,538	910,124	10,361	733,285	-4,971	237,034	33,897	17,268	13,889	1,168	85,593	3,762,941

<sup>a</sup> Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal symfuel.

<sup>b</sup> Distillate fuel oil, residual fuel oil, petroleum coke, jet fuel, kerosene, other petroleum, waste oil, and, beginning in 2011, propane.

<sup>c</sup> Natural gas, plus a small amount of supplemental gaseous fuels.

<sup>d</sup> Blast furnace gas, and other manufactured and waste gases derived from fossil fuels. Through 2010, also includes propane gas.

<sup>e</sup> Pumped storage facility production minus energy used for pumping.

<sup>f</sup> Through 1989, hydroelectric pumped storage is included in "Conventional Hydroelectric Power."

<sup>g</sup> Wood and wood-derived fuels.

<sup>h</sup> 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).

<sup>i</sup> Solar thermal and photovoltaic (PV) energy.

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

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

R=Revised. NA=Not available.

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

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#electricity> for all available data beginning in 1973.

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



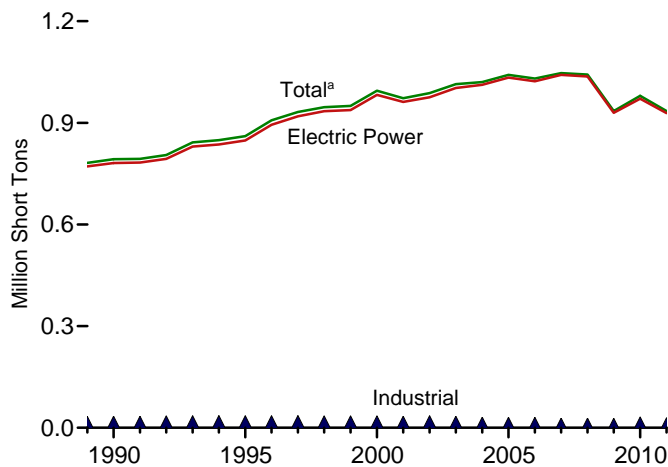
**Table 7.2c Electricity Net Generation: Commercial and Industrial Sectors**  
(Subset of Table 7.2a; Million Kilowatthours)

	Commercial Sector <sup>a</sup>					Industrial Sector <sup>b</sup>							
	Coal <sup>c</sup>	Petro- leum <sup>d</sup>	Natural Gas <sup>e</sup>	Biomass	Total <sup>g</sup>	Coal <sup>c</sup>	Petro- leum <sup>d</sup>	Natural Gas <sup>e</sup>	Other Gases <sup>h</sup>	Hydro- electric Power <sup>i</sup>	Biomass		Total <sup>k</sup>
Waste <sup>f</sup>				Wood <sup>j</sup>							Waste <sup>f</sup>		
<b>1973 Total</b> .....	NA	NA	NA	NA	NA	NA	NA	NA	NA	3,347	NA	NA	3,347
<b>1975 Total</b> .....	NA	NA	NA	NA	NA	NA	NA	NA	NA	3,106	NA	NA	3,106
<b>1980 Total</b> .....	NA	NA	NA	NA	NA	NA	NA	NA	NA	3,161	NA	NA	3,161
<b>1985 Total</b> .....	NA	NA	NA	NA	NA	NA	NA	NA	NA	3,161	NA	NA	3,161
<b>1990 Total</b> .....	796	589	3,272	812	5,837	21,107	7,008	60,007	9,641	2,975	25,379	949	130,830
<b>1995 Total</b> .....	998	379	5,162	1,519	8,232	22,372	6,030	71,717	11,943	5,304	28,868	900	151,025
<b>1996 Total</b> .....	1,051	369	5,249	2,176	9,030	22,172	6,260	71,049	13,015	5,878	28,354	919	151,017
<b>1997 Total</b> .....	1,040	427	4,725	2,342	8,701	23,214	5,649	75,078	11,814	5,685	28,225	882	154,097
<b>1998 Total</b> .....	985	383	4,879	2,335	8,748	22,337	6,206	77,085	11,170	5,349	27,693	880	154,132
<b>1999 Total</b> .....	995	434	4,607	2,393	8,563	21,474	6,088	78,793	12,519	4,758	28,060	686	156,264
<b>2000 Total</b> .....	1,097	432	4,262	1,985	7,903	22,056	5,597	78,798	11,927	4,135	28,652	839	156,673
<b>2001 Total</b> .....	995	438	4,434	1,007	7,416	20,135	5,293	79,755	8,454	3,145	26,888	596	149,175
<b>2002 Total</b> .....	992	431	4,310	1,053	7,415	21,525	4,403	79,013	9,493	3,825	29,643	846	152,580
<b>2003 Total</b> .....	1,206	423	3,899	1,289	7,496	19,817	5,285	78,705	12,953	4,222	27,988	715	154,530
<b>2004 Total</b> .....	1,340	499	3,969	1,562	8,270	19,773	5,967	78,959	11,684	3,248	28,367	797	153,925
<b>2005 Total</b> .....	1,353	375	4,249	1,657	8,492	19,466	5,368	72,882	9,687	3,195	28,271	733	144,739
<b>2006 Total</b> .....	1,310	235	4,355	1,599	8,371	19,464	4,223	77,669	9,923	2,899	28,400	572	148,254
<b>2007 Total</b> .....	1,371	189	4,257	1,599	8,273	16,694	4,243	77,580	9,411	1,590	28,287	631	143,128
<b>2008 Total</b> .....	1,261	142	4,188	1,534	7,926	15,703	3,219	76,421	8,507	1,676	26,641	821	137,113
<b>2009 Total</b> .....	1,096	163	4,225	1,748	8,165	13,686	2,963	75,748	7,574	1,868	25,292	740	132,329
<b>2010</b>													
January .....	116	13	367	137	709	1,544	225	6,959	634	169	2,114	72	12,120
February .....	102	11	339	111	623	1,481	197	6,303	578	162	1,967	64	11,118
March .....	91	8	351	134	661	1,649	163	6,588	735	188	2,149	67	11,936
April .....	80	9	326	144	645	1,258	169	6,194	669	187	2,094	80	11,034
May .....	84	12	326	149	666	1,519	181	6,477	738	164	2,061	69	11,614
June .....	97	10	350	150	699	1,482	187	6,885	700	132	2,137	68	12,075
July .....	110	18	459	146	812	1,713	194	7,205	696	107	2,246	75	12,718
August .....	105	11	490	152	838	1,792	189	7,701	812	99	2,243	78	13,395
September .....	89	9	421	148	750	1,499	165	7,085	713	76	2,182	62	12,238
October .....	80	7	419	133	712	1,527	184	6,443	637	117	2,114	84	11,562
November .....	69	4	401	134	683	1,301	196	6,520	688	130	2,145	79	11,493
December .....	88	12	476	136	793	1,677	209	7,223	744	134	2,255	71	12,777
<b>Total</b> .....	1,111	124	4,725	1,672	8,592	18,441	2,258	81,583	8,343	1,668	25,706	869	144,082
<b>2011</b>													
January .....	108	21	421	186	817	1,304	207	6,901	687	143	2,307	82	12,054
February .....	104	11	367	169	725	1,125	168	6,177	600	160	2,048	78	10,770
March .....	100	7	373	188	753	1,161	160	6,212	693	187	2,181	78	11,149
April .....	77	4	357	179	706	1,139	163	6,416	674	184	2,090	73	11,175
May .....	82	5	471	202	867	1,199	156	6,597	633	198	2,033	66	11,359
June .....	90	3	463	200	860	1,249	152	6,802	753	150	2,292	67	11,938
July .....	104	7	605	205	1,023	1,353	141	7,517	836	109	2,312	71	12,868
August .....	94	7	571	210	985	1,389	138	7,745	823	96	2,343	76	13,085
September .....	84	7	487	195	870	1,209	145	6,953	752	122	2,260	75	11,948
October .....	65	6	438	190	799	1,120	162	6,419	700	126	2,146	86	11,224
November .....	62	7	437	195	800	1,077	143	6,742	715	146	2,286	86	11,663
December .....	78	6	499	195	874	1,165	155	7,429	758	178	2,392	81	12,642
<b>Total</b> .....	1,049	89	5,487	2,315	10,080	14,490	1,891	81,911	8,624	1,799	26,691	917	141,875
<b>2012</b>													
January .....	84	7	528	203	913	1,175	294	7,293	743	175	2,412	77	12,480
February .....	78	5	499	202	875	1,055	194	6,963	771	157	2,246	72	11,733
March .....	70	5	476	199	853	1,097	197	6,716	769	186	2,106	70	11,452
April .....	64	6	468	202	843	998	214	6,522	745	160	2,022	72	11,022
May .....	70	6	480	210	880	1,063	180	7,235	742	182	2,193	77	12,006
June .....	68	10	493	202	880	1,130	204	7,266	717	131	2,188	71	12,000
July .....	78	12	553	219	980	1,344	205	7,892	731	109	2,304	82	13,003
August .....	71	10	498	220	917	1,299	249	7,535	779	97	2,293	77	12,669
September .....	58	8	480	211	869	1,124	231	7,045	668	92	2,249	69	11,805
October .....	43	9	471	219	855	1,152	217	7,096	614	107	2,241	81	11,860
November .....	72	7	447	217	845	1,085	250	7,309	576	236	2,308	81	12,191
<b>11-Month Total</b> ...	756	83	5,392	2,305	9,710	12,520	2,436	78,873	7,856	1,632	24,560	827	132,220
<b>2011 11-Month Total</b> ...	971	83	4,988	2,120	9,206	13,325	1,736	74,482	7,866	1,621	24,299	836	129,233
<b>2010 11-Month Total</b> ...	1,024	112	4,249	1,537	7,798	16,765	2,049	74,360	7,599	1,534	23,450	798	131,305

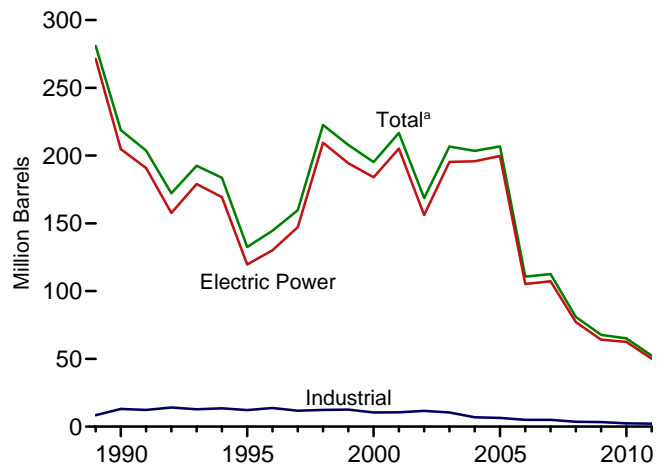
<sup>a</sup> Commercial combined-heat-and-power (CHP) and commercial electricity-only plants.  
<sup>b</sup> Industrial combined-heat-and-power (CHP) and industrial electricity-only plants.  
<sup>c</sup> Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal syngas.  
<sup>d</sup> Distillate fuel oil, residual fuel oil, petroleum coke, jet fuel, kerosene, other petroleum, waste oil, and, beginning in 2011, propane.  
<sup>e</sup> Natural gas, plus a small amount of supplemental gaseous fuels.  
<sup>f</sup> 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).  
<sup>g</sup> Includes a small amount of conventional hydroelectric power, other gases, photovoltaic (PV) energy, wind, wood, and other, which are not separately displayed.  
<sup>h</sup> Blast furnace gas, and other manufactured and waste gases derived from fossil fuels. Through 2010, also includes propane gas.  
<sup>i</sup> Conventional hydroelectric power.  
<sup>j</sup> Wood and wood-derived fuels.  
<sup>k</sup> Includes photovoltaic (PV) energy, wind, 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).  
 NA=Not available.  
 Notes: • See Note, "Classification of Power Plants Into Energy-Use Sectors," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.  
 Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#electricity> for all available data beginning in 1973.  
 Sources: See end of section.

**Figure 7.3 Consumption of Selected Combustible Fuels for Electricity Generation**

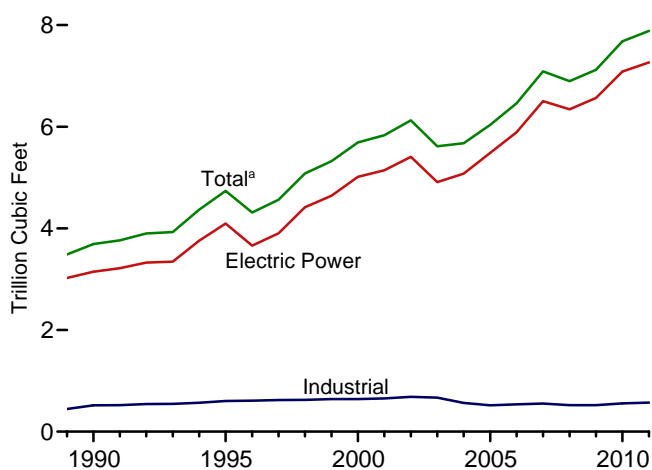
**Coal by Sector, 1989-2011**



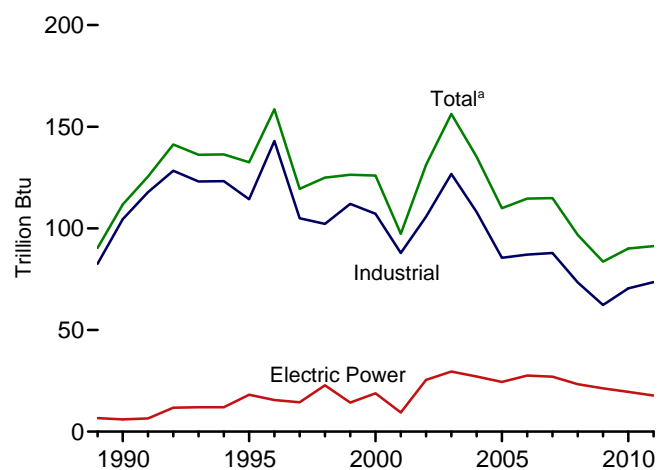
**Petroleum by Sector, 1989-2011**



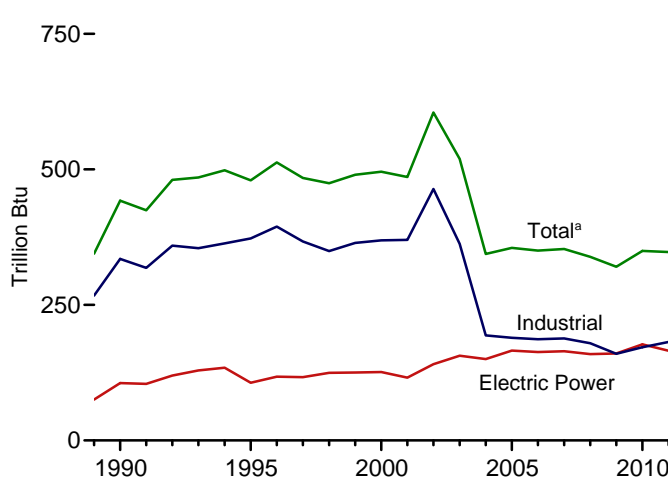
**Natural Gas by Sector, 1989-2011**



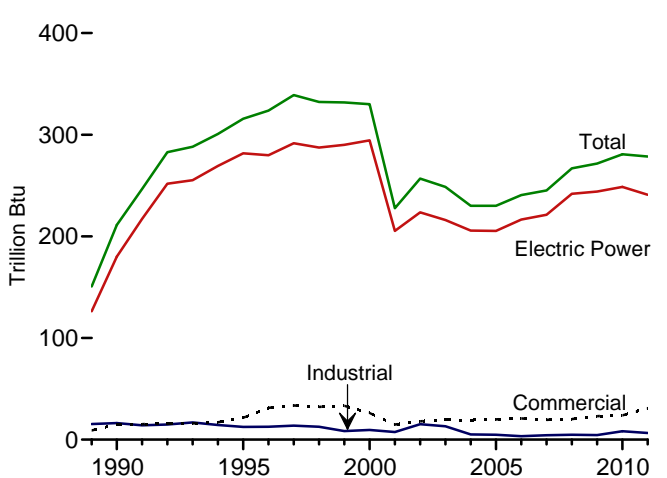
**Other Gases<sup>b</sup> by Sector, 1989-2011**



**Wood by Sector, 1989-2011**



**Waste by Sector, 1989-2011**



<sup>a</sup> Includes commercial sector.

<sup>b</sup> 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 <sup>a</sup> Thousand Short Tons	Petroleum					Natural Gas <sup>i</sup> Billion Cubic Feet	Other Gases <sup>j</sup>	Biomass		Other <sup>k</sup>
		Distillate Fuel Oil <sup>b</sup> Thousand Barrels	Residual Fuel Oil <sup>c</sup> Thousand Barrels	Other Liquids <sup>d</sup>	Petroleum Coke <sup>e</sup> Thousand Short Tons	Total <sup>e</sup> Thousand Barrels			Wood <sup>h</sup>	Waste <sup>i</sup>	
1973 Total	389,212	47,058	513,190	NA	507	562,781	3,660	NA	1	2	NA
1975 Total	405,962	38,907	467,221	NA	70	506,479	3,158	NA	(s)	2	NA
1980 Total	569,274	29,051	391,163	NA	179	421,110	3,682	NA	3	2	NA
1985 Total	693,841	14,635	158,779	NA	231	174,571	3,044	NA	8	7	NA
1990 Total <sup>k</sup>	792,457	18,143	190,652	437	1,914	218,800	3,692	112	442	211	36
1995 Total	860,594	19,615	95,507	680	3,355	132,578	4,738	133	480	316	42
1996 Total	907,209	20,252	106,055	1,712	3,322	144,626	4,312	159	513	324	37
1997 Total	931,949	20,309	118,741	237	4,086	159,715	4,565	119	484	339	36
1998 Total	946,295	25,062	172,728	549	4,860	222,640	5,081	125	475	332	36
1999 Total	949,802	25,951	158,187	974	4,552	207,871	5,322	126	490	332	41
2000 Total	994,933	31,675	143,381	1,450	3,744	195,228	5,691	126	496	330	46
2001 Total	972,691	31,150	165,312	855	3,871	216,672	5,832	97	486	228	160
2002 Total	987,583	23,286	109,235	1,894	6,836	168,597	6,126	131	605	257	191
2003 Total	1,014,058	29,672	142,518	2,947	6,303	206,653	5,616	156	519	249	193
2004 Total	1,020,523	20,163	142,088	2,856	7,677	203,494	5,675	135	344	230	183
2005 Total	1,041,448	20,651	141,518	2,968	8,330	206,785	6,036	110	355	230	173
2006 Total	1,030,556	13,174	58,473	2,174	7,363	110,634	6,462	115	350	241	172
2007 Total	1,046,795	15,683	63,833	2,917	6,036	112,615	7,089	115	353	245	168
2008 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 January	90,767	2,485	2,860	241	433	7,751	570	7	30	22	15
February	80,209	869	1,075	212	404	4,174	502	6	28	20	13
March	76,544	785	1,245	147	438	4,370	479	8	29	24	15
April	67,037	726	1,160	126	382	3,923	494	8	27	23	15
May	76,061	1,050	1,997	121	415	5,244	582	8	27	24	15
June	87,395	1,244	3,087	154	493	6,950	731	8	29	24	16
July	94,993	1,347	3,681	200	524	7,849	923	8	31	24	16
August	94,786	1,093	2,987	164	423	6,358	972	8	32	24	16
September	79,573	905	1,789	151	394	4,813	723	8	30	23	16
October	70,918	787	1,113	129	362	3,840	594	6	28	23	15
November	72,756	876	982	143	317	3,588	519	7	29	24	15
December	88,645	1,883	2,021	266	408	6,210	591	8	31	24	16
Total	979,684	14,050	23,997	2,056	4,994	65,071	7,680	90	350	281	184
2011 January	90,208	1,347	1,723	255	552	6,086	564	7	31	22	16
February	73,614	913	1,020	144	431	4,230	505	6	28	21	15
March	72,645	907	1,113	140	517	4,746	503	7	29	23	17
April	67,128	1,005	1,333	111	336	4,130	546	7	25	22	17
May	73,522	973	1,230	88	357	4,078	599	7	26	23	18
June	84,156	968	1,249	138	432	4,514	727	8	30	24	18
July	94,304	1,138	1,550	238	510	5,476	967	9	31	25	19
August	92,297	831	1,313	146	464	4,610	951	9	32	25	18
September	76,790	736	942	156	454	4,105	712	8	30	23	17
October	69,605	753	938	143	338	3,522	600	7	27	24	17
November	67,059	768	917	147	257	3,115	568	8	28	24	17
December	73,610	892	922	138	365	3,775	642	8	31	25	18
Total	934,938	11,231	14,251	1,844	5,012	52,387	7,884	91	348	279	205
2012 January	70,846	816	994	78	465	4,213	675	8	33	22	15
February	62,906	689	760	118	354	3,340	673	8	31	21	14
March	57,442	599	875	128	234	2,771	702	8	28	23	15
April	51,893	789	799	141	202	2,741	742	8	26	23	14
May	62,978	907	839	166	245	3,138	844	8	29	24	16
June	71,750	899	1,299	177	265	3,698	911	8	30	23	15
July	86,667	894	1,608	174	291	4,131	1,123	8	32	25	16
August	82,862	723	1,143	154	319	3,617	1,034	8	33	23	16
September	69,490	681	836	112	313	3,196	834	7	31	22	15
October	66,745	776	937	148	266	3,188	699	7	29	23	15
November	69,977	737	782	118	298	3,126	609	6	31	23	15
11-Month Total	753,556	8,510	10,871	1,513	3,253	37,158	8,847	84	334	251	165
2011 11-Month Total	861,329	10,339	13,329	1,707	4,647	48,612	7,242	83	316	254	187
2010 11-Month Total	891,039	12,168	21,976	1,790	4,586	58,860	7,090	82	318	256	169

<sup>a</sup> Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.  
<sup>b</sup> Fuel oil nos. 1, 2, and 4. For 1973-1979, data are for gas turbine and internal combustion plant use of petroleum. For 1980-2000, electric utility data also include small amounts of kerosene and jet fuel.  
<sup>c</sup> Fuel oil nos. 5 and 6. For 1973-1979, data are for steam plant use of petroleum. For 1980-2000, electric utility data also include a small amount of fuel oil no. 4.  
<sup>d</sup> Jet fuel, kerosene, other petroleum liquids, waste oil, and, beginning in 2011, propane.  
<sup>e</sup> Petroleum coke is converted from short tons to barrels by multiplying by 5.  
<sup>f</sup> Natural gas, plus a small amount of supplemental gaseous fuels.  
<sup>g</sup> Blast furnace gas, and other manufactured and waste gases derived from fossil fuels. Through 2010, also includes propane gas.  
<sup>h</sup> Wood and wood-derived fuels.  
<sup>i</sup> 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).  
<sup>j</sup> 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).  
<sup>k</sup> 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. • 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> for all available data beginning in 1973.  
 Sources: See sources for Tables 7.3b and 7.3c.

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

	Coal <sup>a</sup> Thousand Short Tons	Petroleum					Natural Gas <sup>f</sup> Billion Cubic Feet	Other Gases <sup>g</sup>	Biomass		Other <sup>i</sup>
		Distillate Fuel Oil <sup>b</sup>	Residual Fuel Oil <sup>c</sup>	Other Liquids <sup>d</sup>	Petroleum Coke <sup>e</sup>	Total <sup>e</sup>			Wood <sup>h</sup>	Waste <sup>j</sup>	
1973 Total	389,212	47,058	513,190	NA	507	562,781	3,660	NA	1	2	NA
1975 Total	405,962	38,907	467,221	NA	70	506,479	3,158	NA	(s)	2	NA
1980 Total	569,274	29,051	391,163	NA	179	421,110	3,682	NA	3	2	NA
1985 Total	693,841	14,635	158,779	NA	231	174,571	3,044	NA	8	7	NA
1990 Total	781,301	16,394	183,285	25	1,008	204,745	3,147	6	106	180	(s)
1995 Total	847,854	18,066	88,895	441	2,452	119,663	4,094	18	106	282	2
1996 Total	894,400	18,472	98,795	567	2,467	130,168	3,660	16	117	280	2
1997 Total	919,009	18,646	112,423	130	3,201	147,202	3,903	14	117	292	1
1998 Total	934,126	23,166	165,875	411	3,999	209,447	4,416	23	125	287	2
1999 Total	937,888	23,875	151,921	514	3,607	194,345	4,644	14	125	290	1
2000 Total	982,713	29,722	138,047	403	3,155	183,946	5,014	19	126	294	1
2001 Total	961,523	29,056	159,150	374	3,308	205,119	5,142	9	116	205	109
2002 Total	975,251	21,810	104,577	1,243	5,705	156,154	5,408	25	141	224	137
2003 Total	1,003,036	27,441	137,361	1,937	5,719	195,336	4,909	30	156	216	136
2004 Total	1,012,459	18,793	138,831	2,511	7,135	195,809	5,075	27	150	206	131
2005 Total	1,033,567	19,450	138,337	2,591	7,877	199,760	5,485	24	166	205	116
2006 Total	1,022,802	12,578	56,347	1,783	6,905	105,235	5,891	28	163	216	117
2007 Total	1,041,346	15,135	62,072	2,496	5,523	107,316	6,502	27	165	221	117
2008 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 January	90,080	2,441	2,804	219	404	7,482	519	2	16	20	9
February	79,537	833	1,023	196	379	3,946	456	2	15	18	8
March	75,772	756	1,214	130	415	4,176	432	2	15	21	9
April	66,559	695	1,132	112	360	3,741	449	2	14	20	9
May	75,311	1,021	1,964	104	390	5,040	536	2	13	21	10
June	86,725	1,220	3,059	137	463	6,733	681	2	15	21	10
July	94,194	1,306	3,643	185	495	7,610	869	2	16	22	10
August	93,922	1,066	2,962	149	392	6,136	915	2	16	22	10
September	78,881	880	1,760	136	371	4,628	671	1	15	21	10
October	70,205	762	1,076	112	337	3,634	547	1	13	20	10
November	72,206	849	949	125	290	3,373	473	1	15	21	10
December	87,854	1,847	1,973	244	383	5,978	538	1	16	22	10
Total	971,245	13,677	23,560	1,848	4,679	62,477	7,085	20	177	249	116
2011 January	89,681	1,314	1,660	238	524	5,833	512	1	15	19	10
February	73,167	886	977	127	409	4,033	459	1	14	18	10
March	72,148	882	1,082	124	495	4,563	457	2	14	20	11
April	66,643	989	1,302	96	312	3,948	498	1	11	19	11
May	73,010	955	1,206	72	333	3,899	548	1	12	20	11
June	83,622	951	1,223	123	409	4,344	675	2	14	21	12
July	93,724	1,117	1,524	223	491	5,317	909	2	16	21	12
August	91,707	812	1,287	130	440	4,430	893	2	16	21	12
September	76,286	714	915	140	428	3,911	659	1	14	20	11
October	69,165	727	906	128	312	3,321	551	1	13	20	11
November	66,642	745	889	132	232	2,926	518	1	12	21	11
December	73,063	868	891	123	339	3,579	586	1	15	22	12
Total	928,857	10,961	13,861	1,655	4,726	50,105	7,265	18	166	241	133
2012 January	70,382	797	958	62	382	3,727	620	1	15	19	11
February	62,486	674	725	102	306	3,032	621	1	14	17	10
March	57,010	582	845	119	183	2,463	652	1	12	20	10
April	51,504	766	773	113	153	2,415	693	1	10	20	10
May	62,569	885	808	158	196	2,831	789	1	12	21	11
June	71,310	871	1,276	159	215	3,380	856	1	13	20	11
July	86,138	867	1,579	166	237	3,796	1,063	1	15	21	12
August	82,344	696	1,119	147	247	3,195	977	1	15	20	11
September	69,048	656	812	101	247	2,807	781	1	14	19	11
October	66,287	749	914	125	213	2,851	645	1	12	20	11
November	69,550	717	760	112	223	2,704	553	1	13	20	11
11-Month Total	748,627	8,261	10,569	1,364	2,601	33,200	8,251	15	145	217	118
2011 11-Month Total	855,793	10,093	12,970	1,533	4,386	46,526	6,679	16	151	219	121
2010 11-Month Total	883,391	11,829	21,587	1,604	4,296	56,499	6,548	18	161	227	106

<sup>a</sup> Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.

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

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

<sup>d</sup> Jet fuel, kerosene, other petroleum liquids, waste oil, and, beginning in 2011, propane.

<sup>e</sup> Petroleum coke is converted from short tons to barrels by multiplying by 5.

<sup>f</sup> Natural gas, plus a small amount of supplemental gaseous fuels.

<sup>g</sup> Blast furnace gas, and other manufactured and waste gases derived from fossil fuels. Through 2010, also includes propane gas.

<sup>h</sup> Wood and wood-derived fuels.

<sup>i</sup> 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).

<sup>j</sup> 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).

<sup>k</sup> Through 1988, data are for electric utilities only. Beginning in 1989, data are for electric utilities and independent power producers.

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

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

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

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#electricity> for all available data beginning in 1973.

Sources: See end of section.

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

	Commercial Sector <sup>a</sup>				Industrial Sector <sup>b</sup>						
	Coal <sup>c</sup>	Petroleum <sup>d</sup>	Natural Gas <sup>e</sup>	Biomass	Coal <sup>c</sup>	Petroleum <sup>d</sup>	Natural Gas <sup>e</sup>	Other Gases <sup>g</sup>	Biomass		Other <sup>i</sup>
				Waste <sup>f</sup>					Wood <sup>h</sup>	Waste <sup>f</sup>	
Thousand Short Tons	Thousand Barrels	Billion Cubic Feet	Trillion Btu	Thousand Short Tons	Thousand Barrels	Billion Cubic Feet	Trillion Btu				
<b>1989 Total</b> .....	414	1,165	18	9	9,707	8,482	444	83	267	15	37
<b>1990 Total</b> .....	417	953	28	15	10,740	13,103	517	104	335	16	36
<b>1995 Total</b> .....	569	649	43	21	12,171	12,265	601	114	373	13	40
<b>1996 Total</b> .....	656	645	42	31	12,153	13,813	610	143	394	13	35
<b>1997 Total</b> .....	630	790	39	34	12,311	11,723	623	105	367	14	36
<b>1998 Total</b> .....	440	802	41	32	11,728	12,392	625	102	349	13	35
<b>1999 Total</b> .....	481	931	39	33	11,432	12,595	639	112	364	8	39
<b>2000 Total</b> .....	514	823	37	26	11,706	10,459	640	107	369	10	45
<b>2001 Total</b> .....	532	1,023	36	15	10,636	10,530	654	88	370	7	44
<b>2002 Total</b> .....	477	834	33	18	11,855	11,608	685	106	464	15	43
<b>2003 Total</b> .....	582	894	38	19	10,440	10,424	668	127	362	13	46
<b>2004 Total</b> .....	377	766	33	19	7,687	6,919	566	108	194	5	41
<b>2005 Total</b> .....	377	585	34	20	7,504	6,440	518	85	189	5	46
<b>2006 Total</b> .....	347	333	35	21	7,408	5,066	536	87	187	3	45
<b>2007 Total</b> .....	361	258	34	19	5,089	5,041	554	88	188	4	41
<b>2008 Total</b> .....	369	166	33	20	5,075	3,617	520	73	179	5	39
<b>2009 Total</b> .....	317	190	34	23	4,674	3,328	520	62	160	4	42
<b>2010</b>											
January .....	32	18	3	2	654	252	48	5	14	1	4
February .....	28	16	3	2	643	212	43	5	13	1	4
March .....	26	12	3	2	746	182	44	6	14	1	4
April .....	23	11	3	2	456	171	42	6	14	1	4
May .....	23	14	3	2	727	190	44	6	14	1	4
June .....	27	13	3	2	643	204	47	6	14	1	5
July .....	30	26	4	2	769	213	50	6	15	1	5
August .....	29	15	4	2	835	207	53	7	15	1	5
September .....	26	13	3	2	666	171	48	6	15	1	5
October .....	23	11	3	2	690	195	44	5	14	1	5
November .....	21	7	3	2	529	208	43	6	14	1	4
December .....	26	15	4	2	765	217	48	6	15	1	5
<b>Total</b> .....	314	172	39	24	8,125	2,422	555	70	172	8	55
<b>2011</b>											
January .....	40	27	4	3	487	226	48	6	16	1	4
February .....	39	16	3	2	409	180	43	5	14	1	4
March .....	37	11	3	3	460	173	43	5	15	1	5
April .....	25	5	3	2	460	177	45	6	14	1	5
May .....	25	5	4	3	487	174	47	6	14	1	5
June .....	27	5	4	3	507	165	48	7	16	1	5
July .....	32	14	5	3	548	145	53	7	16	1	5
August .....	29	12	5	3	562	168	54	7	16	1	5
September .....	26	13	4	3	479	181	49	6	15	1	4
October .....	21	10	4	3	419	191	45	6	15	1	5
November .....	21	11	4	3	397	179	47	6	16	1	5
December .....	26	9	4	3	521	187	51	6	16	1	5
<b>Total</b> .....	347	137	47	31	5,735	2,145	572	74	182	7	57
<b>2012</b>											
January .....	29	9	4	3	435	476	50	6	18	1	3
February .....	27	7	4	3	393	301	48	7	17	1	3
March .....	25	8	4	3	407	300	46	7	15	1	3
April .....	22	10	4	2	366	316	45	6	16	1	3
May .....	24	9	4	3	385	298	51	6	17	1	3
June .....	26	15	4	2	413	303	51	6	17	1	3
July .....	30	18	5	3	500	318	55	6	18	1	3
August .....	28	16	4	2	491	407	53	7	18	1	3
September .....	24	12	4	3	418	377	50	6	17	1	3
October .....	20	13	4	3	438	324	50	5	17	1	3
November .....	26	11	4	3	401	412	51	5	18	1	3
<b>11-Month Total</b> ...	282	127	45	28	4,647	3,831	551	69	189	6	33
<b>2011 11-Month Total</b> ...	322	128	43	28	5,214	1,958	520	67	165	6	52
<b>2010 11-Month Total</b> ...	288	156	35	22	7,360	2,205	507	64	157	8	50

<sup>a</sup> Commercial combined-heat-and-power (CHP) and commercial electricity-only plants.

<sup>b</sup> Industrial combined-heat-and-power (CHP) and industrial electricity-only plants.

<sup>c</sup> Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.

<sup>d</sup> Distillate fuel oil, residual fuel oil, petroleum coke, jet fuel, kerosene, other petroleum, waste oil, and, beginning in 2011, propane.

<sup>e</sup> Natural gas, plus a small amount of supplemental gaseous fuels.

<sup>f</sup> 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).

<sup>g</sup> Blast furnace gas, and other manufactured and waste gases derived from fossil fuels. Through 2010, also includes propane gas.

<sup>h</sup> Wood and wood-derived fuels.

<sup>i</sup> 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).

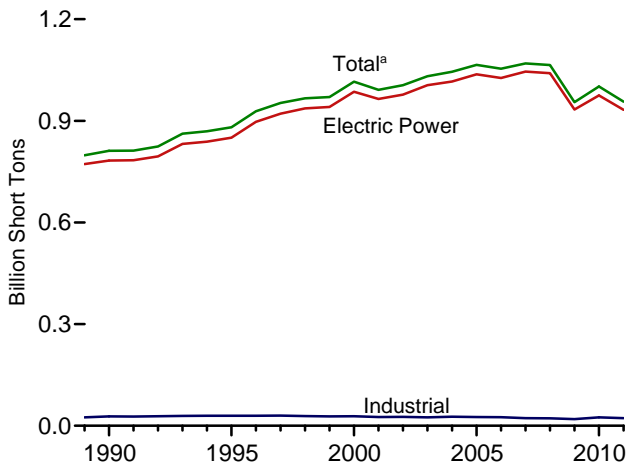
Notes: • Data are for fuels consumed to produce electricity. Through 1988, data are not available. • See Note, "Classification of Power Plants Into Energy-Use Sectors," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and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

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#electricity> for all available data beginning in 1989.

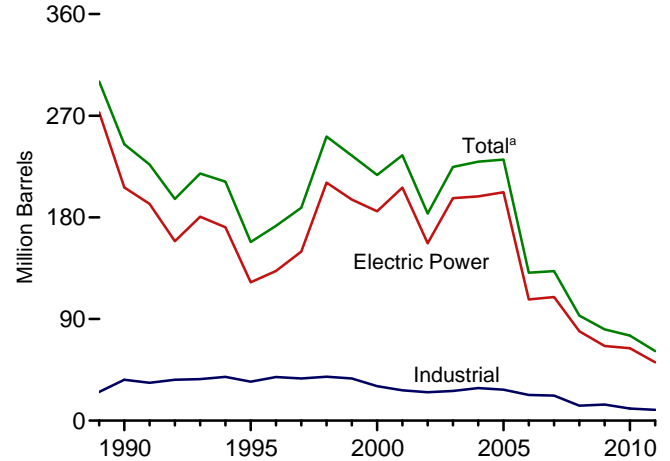
Sources: • **1989-1997:** U.S. Energy Information Administration (EIA), Form EIA-867, "Annual Nonutility Power Producer Report." • **1998-2000:** EIA, Form EIA-860B, "Annual Electric Generator Report—Nonutility." • **2001-2003:** EIA, Form EIA-906, "Power Plant Report." • **2004-2007:** EIA, Form EIA-906,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

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

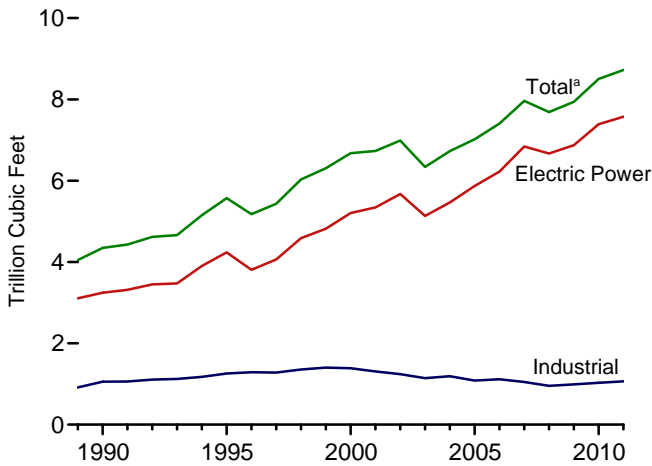
Coal by Sector, 1989-2011



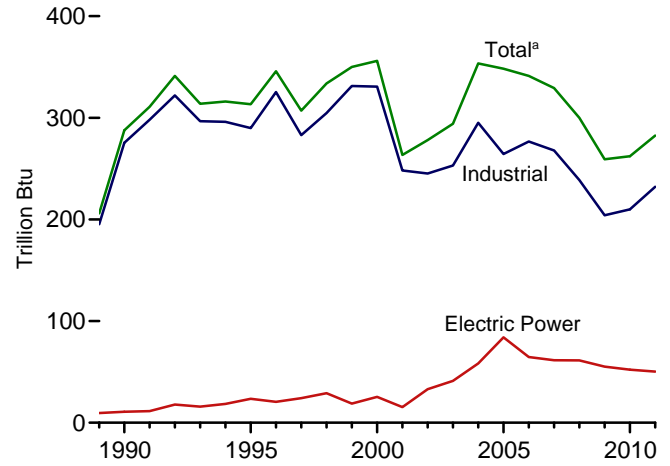
Petroleum by Sector, 1989-2011



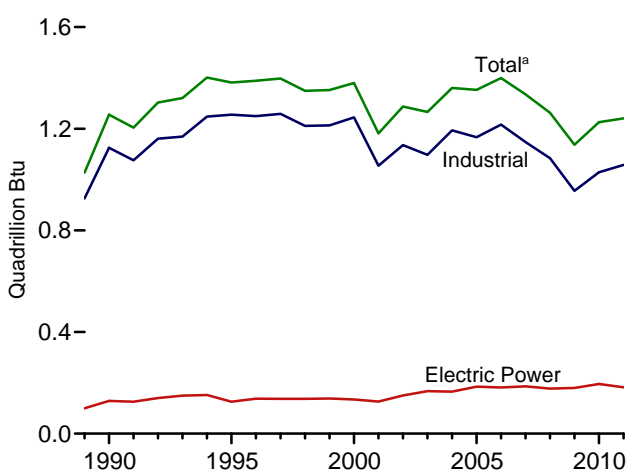
Natural Gas by Sector, 1989-2011



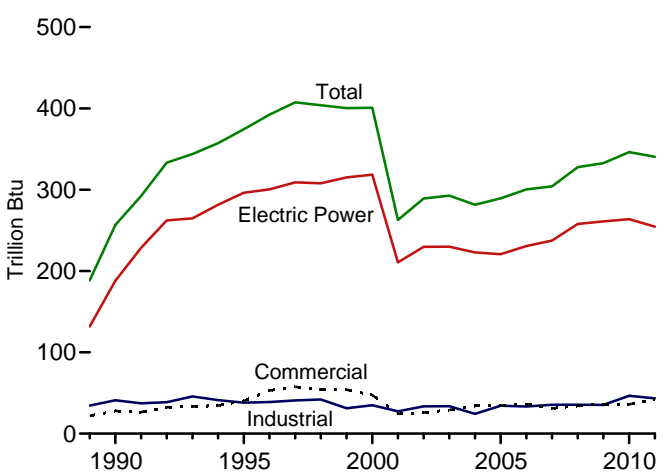
Other Gases<sup>b</sup> by Sector, 1989-2011



Wood by Sector, 1989-2011



Waste by Sector, 1989-2011



<sup>a</sup> Includes commercial sector.

<sup>b</sup> 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 7.4a Consumption of Combustible Fuels for Electricity Generation and Useful Thermal Output: Total (All Sectors)** (Sum of Tables 7.4b and 7.4c)

	Coal <sup>a</sup>	Petroleum					Natural Gas <sup>f</sup>	Other Gases <sup>g</sup>	Biomass		Other <sup>j</sup>
		Distillate Fuel Oil <sup>b</sup>	Residual Fuel Oil <sup>c</sup>	Other Liquids <sup>d</sup>	Petroleum Coke <sup>e</sup>	Total <sup>e</sup>			Wood <sup>h</sup>	Waste <sup>i</sup>	
<b>1973 Total</b> .....	<b>389,212</b>	<b>47,058</b>	<b>513,190</b>	<b>NA</b>	<b>507</b>	<b>562,781</b>	<b>3,660</b>	<b>NA</b>	<b>1</b>	<b>2</b>	<b>NA</b>
<b>1975 Total</b> .....	<b>405,962</b>	<b>38,907</b>	<b>467,221</b>	<b>NA</b>	<b>70</b>	<b>506,479</b>	<b>3,158</b>	<b>NA</b>	<b>0</b>	<b>2</b>	<b>NA</b>
<b>1980 Total</b> .....	<b>569,274</b>	<b>29,051</b>	<b>391,163</b>	<b>NA</b>	<b>179</b>	<b>421,110</b>	<b>3,682</b>	<b>NA</b>	<b>3</b>	<b>2</b>	<b>NA</b>
<b>1985 Total</b> .....	<b>693,841</b>	<b>14,635</b>	<b>158,779</b>	<b>NA</b>	<b>231</b>	<b>174,571</b>	<b>3,044</b>	<b>NA</b>	<b>8</b>	<b>7</b>	<b>NA</b>
<b>1990 Total</b> <sup>k</sup> .....	<b>811,538</b>	<b>20,194</b>	<b>209,081</b>	<b>1,332</b>	<b>2,832</b>	<b>244,765</b>	<b>4,346</b>	<b>288</b>	<b>1,256</b>	<b>257</b>	<b>86</b>
<b>1995 Total</b> .....	<b>881,012</b>	<b>21,697</b>	<b>112,168</b>	<b>1,322</b>	<b>4,590</b>	<b>158,140</b>	<b>5,572</b>	<b>313</b>	<b>1,382</b>	<b>374</b>	<b>97</b>
<b>1996 Total</b> .....	<b>928,015</b>	<b>22,444</b>	<b>124,607</b>	<b>2,468</b>	<b>4,596</b>	<b>172,499</b>	<b>5,178</b>	<b>346</b>	<b>1,389</b>	<b>392</b>	<b>91</b>
<b>1997 Total</b> .....	<b>952,955</b>	<b>22,893</b>	<b>134,623</b>	<b>526</b>	<b>6,095</b>	<b>188,517</b>	<b>5,433</b>	<b>307</b>	<b>1,397</b>	<b>407</b>	<b>103</b>
<b>1998 Total</b> .....	<b>966,615</b>	<b>30,006</b>	<b>189,267</b>	<b>1,230</b>	<b>6,196</b>	<b>251,486</b>	<b>6,030</b>	<b>334</b>	<b>1,349</b>	<b>404</b>	<b>95</b>
<b>1999 Total</b> .....	<b>970,175</b>	<b>30,616</b>	<b>172,319</b>	<b>1,812</b>	<b>5,989</b>	<b>234,694</b>	<b>6,305</b>	<b>350</b>	<b>1,352</b>	<b>400</b>	<b>101</b>
<b>2000 Total</b> .....	<b>1,015,398</b>	<b>34,572</b>	<b>156,673</b>	<b>2,904</b>	<b>4,669</b>	<b>217,494</b>	<b>6,677</b>	<b>356</b>	<b>1,380</b>	<b>401</b>	<b>109</b>
<b>2001 Total</b> .....	<b>991,635</b>	<b>33,724</b>	<b>177,137</b>	<b>1,418</b>	<b>4,532</b>	<b>234,940</b>	<b>6,731</b>	<b>263</b>	<b>1,182</b>	<b>263</b>	<b>229</b>
<b>2002 Total</b> .....	<b>1,005,144</b>	<b>24,749</b>	<b>118,637</b>	<b>3,257</b>	<b>7,353</b>	<b>183,409</b>	<b>6,986</b>	<b>278</b>	<b>1,287</b>	<b>289</b>	<b>252</b>
<b>2003 Total</b> .....	<b>1,031,778</b>	<b>31,825</b>	<b>152,859</b>	<b>4,576</b>	<b>7,067</b>	<b>224,593</b>	<b>6,337</b>	<b>294</b>	<b>1,266</b>	<b>293</b>	<b>262</b>
<b>2004 Total</b> .....	<b>1,044,798</b>	<b>23,520</b>	<b>157,478</b>	<b>4,764</b>	<b>8,721</b>	<b>229,364</b>	<b>6,727</b>	<b>353</b>	<b>1,360</b>	<b>282</b>	<b>254</b>
<b>2005 Total</b> .....	<b>1,065,281</b>	<b>24,446</b>	<b>156,915</b>	<b>4,270</b>	<b>9,113</b>	<b>231,193</b>	<b>7,021</b>	<b>348</b>	<b>1,353</b>	<b>289</b>	<b>237</b>
<b>2006 Total</b> .....	<b>1,053,783</b>	<b>14,655</b>	<b>69,846</b>	<b>3,396</b>	<b>8,622</b>	<b>131,005</b>	<b>7,404</b>	<b>341</b>	<b>1,399</b>	<b>300</b>	<b>247</b>
<b>2007 Total</b> .....	<b>1,069,606</b>	<b>17,042</b>	<b>74,616</b>	<b>4,237</b>	<b>7,299</b>	<b>132,389</b>	<b>7,962</b>	<b>329</b>	<b>1,336</b>	<b>304</b>	<b>239</b>
<b>2008 Total</b> .....	<b>1,064,503</b>	<b>14,137</b>	<b>43,477</b>	<b>3,765</b>	<b>6,314</b>	<b>92,948</b>	<b>7,689</b>	<b>300</b>	<b>1,263</b>	<b>328</b>	<b>212</b>
<b>2009 Total</b> .....	<b>955,190</b>	<b>14,800</b>	<b>33,672</b>	<b>3,218</b>	<b>5,828</b>	<b>80,830</b>	<b>7,938</b>	<b>259</b>	<b>1,137</b>	<b>333</b>	<b>228</b>
<b>2010 January</b> .....	92,738	2,643	3,212	338	525	8,819	643	21	103	29	18
February .....	82,029	978	1,397	286	497	5,143	566	19	96	26	17
March .....	78,383	866	1,439	207	522	5,124	547	23	103	30	19
April .....	69,179	837	1,355	176	458	4,656	556	22	98	29	19
May .....	77,725	1,111	2,221	176	500	6,005	647	23	98	29	20
June .....	89,063	1,295	3,291	204	586	7,721	796	23	101	29	20
July .....	96,783	1,455	3,921	244	613	8,684	997	22	105	29	21
August .....	96,593	1,185	3,190	206	510	7,132	1,047	23	106	29	21
September .....	81,250	961	2,006	191	475	5,534	791	22	103	27	20
October .....	72,571	871	1,370	186	453	4,693	662	20	101	29	20
November .....	74,496	1,017	1,212	204	414	4,503	586	21	102	30	20
December .....	90,600	2,029	2,332	361	499	7,218	665	23	109	30	21
<b>Total</b> .....	<b>1,001,411</b>	<b>15,247</b>	<b>26,944</b>	<b>2,777</b>	<b>6,053</b>	<b>75,231</b>	<b>8,502</b>	<b>262</b>	<b>1,226</b>	<b>346</b>	<b>237</b>
<b>2011 January</b> .....	92,292	1,411	2,123	329	645	7,087	636	23	111	28	20
February .....	75,447	986	1,247	213	521	5,052	570	22	99	26	19
March .....	74,514	965	1,327	201	603	5,506	570	24	104	28	22
April .....	68,841	1,034	1,537	166	428	4,876	610	22	96	26	21
May .....	75,298	1,016	1,416	146	452	4,838	666	23	95	27	22
June .....	85,881	1,001	1,450	191	521	5,246	794	24	104	28	23
July .....	96,128	1,169	1,738	292	599	6,194	1,045	25	107	29	24
August .....	94,103	855	1,515	204	545	5,298	1,030	25	107	29	23
September .....	78,479	770	1,136	207	545	4,837	782	24	104	28	21
October .....	71,317	797	1,147	201	429	4,289	666	24	100	30	22
November .....	68,748	805	1,118	201	345	3,848	636	23	103	30	22
December .....	75,422	926	1,123	189	460	4,537	718	24	111	31	23
<b>Total</b> .....	<b>956,470</b>	<b>11,735</b>	<b>16,877</b>	<b>2,540</b>	<b>6,092</b>	<b>61,610</b>	<b>8,724</b>	<b>282</b>	<b>1,241</b>	<b>340</b>	<b>261</b>
<b>2012 January</b> .....	72,795	847	1,188	131	561	4,970	755	26	109	28	18
February .....	64,604	710	892	168	449	4,015	746	25	101	26	16
March .....	59,142	626	994	198	360	3,617	775	27	96	29	17
April .....	53,407	814	920	219	317	3,538	814	25	91	27	17
May .....	64,678	938	991	206	355	3,909	917	26	100	29	18
June .....	73,344	943	1,458	234	365	4,458	987	25	100	28	18
July .....	88,319	937	1,767	205	385	4,836	1,203	25	105	29	18
August .....	84,597	754	1,303	180	412	4,297	1,113	26	103	28	18
September .....	71,050	705	973	146	406	3,854	908	23	101	27	17
October .....	68,476	803	1,087	214	379	3,999	774	22	98	29	17
November .....	71,660	765	931	148	405	3,868	682	22	100	30	17
<b>11-Month Total</b> ...	<b>772,072</b>	<b>8,842</b>	<b>12,503</b>	<b>2,050</b>	<b>4,393</b>	<b>45,360</b>	<b>9,674</b>	<b>272</b>	<b>1,105</b>	<b>311</b>	<b>191</b>
<b>2011 11-Month Total</b> ...	<b>881,048</b>	<b>10,809</b>	<b>15,754</b>	<b>2,351</b>	<b>5,632</b>	<b>57,072</b>	<b>8,006</b>	<b>258</b>	<b>1,130</b>	<b>309</b>	<b>238</b>
<b>2010 11-Month Total</b> ...	<b>910,811</b>	<b>13,219</b>	<b>24,612</b>	<b>2,416</b>	<b>5,553</b>	<b>68,013</b>	<b>7,837</b>	<b>240</b>	<b>1,117</b>	<b>316</b>	<b>216</b>

<sup>a</sup> Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.  
<sup>b</sup> Fuel oil nos. 1, 2, and 4. Through 2000, electric utility data also include small amounts of kerosene and jet fuel.  
<sup>c</sup> Fuel oil nos. 5 and 6. Through 2000, electric utility data also include a small amount of fuel oil no. 4.  
<sup>d</sup> Jet fuel, kerosene, other petroleum liquids, waste oil, and, beginning in 2011, propane.  
<sup>e</sup> Petroleum coke is converted from short tons to barrels by multiplying by 5.  
<sup>f</sup> Natural gas, plus a small amount of supplemental gaseous fuels.  
<sup>g</sup> Blast furnace gas, and other manufactured and waste gases derived from fossil fuels. Through 2010, also includes propane gas.  
<sup>h</sup> Wood and wood-derived fuels.  
<sup>i</sup> 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).  
<sup>j</sup> 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).  
<sup>k</sup> 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.  
 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/#electricity> for all available data beginning in 1973.  
 Sources: See sources for Tables 7.4b and 7.4c.

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

	Coal <sup>a</sup> Thousand Short Tons	Petroleum					Natural Gas <sup>f</sup> Billion Cubic Feet	Other Gases <sup>g</sup>	Biomass		Other <sup>j</sup>
		Distillate Fuel Oil <sup>b</sup> Thousand Barrels	Residual Fuel Oil <sup>c</sup> Thousand Barrels	Other Liquids <sup>d</sup>	Petroleum Coke <sup>e</sup> Thousand Short Tons	Total <sup>e</sup> Thousand Barrels			Wood <sup>h</sup>	Waste <sup>i</sup>	
<b>1973 Total</b> .....	389,212	47,058	513,190	NA	507	562,781	3,660	NA	1	2	NA
<b>1975 Total</b> .....	405,962	38,907	467,221	NA	70	506,479	3,158	NA	(s)	2	NA
<b>1980 Total</b> .....	569,274	29,051	391,163	NA	179	421,110	3,682	NA	3	2	NA
<b>1985 Total</b> .....	693,841	14,635	158,779	NA	231	174,571	3,044	NA	8	7	NA
<b>1990 Total</b> <sup>k</sup> .....	782,567	16,567	184,915	26	1,008	206,550	3,245	11	129	188	(s)
<b>1995 Total</b> .....	850,230	18,553	90,023	499	2,674	122,447	4,237	24	125	296	2
<b>1996 Total</b> .....	896,921	18,780	99,951	653	2,642	132,593	3,807	20	138	300	2
<b>1997 Total</b> .....	921,364	18,989	113,669	152	3,372	149,668	4,065	24	137	309	1
<b>1998 Total</b> .....	936,619	23,300	166,528	431	4,102	210,769	4,588	29	137	308	2
<b>1999 Total</b> .....	940,922	24,058	152,493	544	3,735	195,769	4,820	19	138	315	1
<b>2000 Total</b> .....	985,821	30,016	138,513	454	3,275	185,358	5,206	25	134	318	1
<b>2001 Total</b> .....	964,433	29,274	159,504	377	3,427	206,291	5,342	15	126	211	113
<b>2002 Total</b> .....	977,507	21,876	104,773	1,267	5,816	156,996	5,672	33	150	230	143
<b>2003 Total</b> .....	1,005,116	27,632	138,279	2,026	5,799	196,932	5,135	41	167	230	140
<b>2004 Total</b> .....	1,016,268	19,107	139,816	2,713	7,372	198,498	5,464	58	165	223	138
<b>2005 Total</b> .....	1,037,485	19,675	139,409	2,685	8,083	202,184	5,869	84	185	221	123
<b>2006 Total</b> .....	1,026,636	12,646	57,345	1,870	7,101	107,365	6,222	65	182	231	125
<b>2007 Total</b> .....	1,045,141	15,327	63,086	2,594	5,685	109,431	6,841	61	186	237	124
<b>2008 Total</b> .....	1,040,580	12,547	38,241	2,670	5,119	79,056	6,668	61	177	258	131
<b>2009 Total</b> .....	933,627	12,035	28,782	2,210	4,611	66,081	6,873	55	180	261	124
<b>2010</b> January .....	90,452	2,459	2,887	222	413	7,636	546	5	17	21	10
February .....	79,884	851	1,061	219	389	4,076	480	4	16	20	9
March .....	76,110	759	1,256	131	427	4,281	457	5	16	22	10
April .....	66,842	699	1,214	112	369	3,871	471	5	15	21	10
May .....	75,597	1,023	2,055	104	400	5,181	560	5	14	22	10
June .....	87,030	1,222	3,147	137	471	6,860	706	5	16	23	11
July .....	94,519	1,309	3,730	185	503	7,742	897	5	17	23	11
August .....	94,247	1,068	3,051	149	394	6,236	943	4	18	23	11
September .....	79,176	883	1,845	136	372	4,726	697	4	16	22	10
October .....	70,492	772	1,161	112	346	3,773	570	3	15	22	10
November .....	72,514	890	1,035	126	301	3,557	497	4	16	23	10
December .....	88,189	1,854	2,062	245	391	6,118	564	4	17	23	11
<b>Total</b> .....	<b>975,052</b>	<b>13,790</b>	<b>24,503</b>	<b>1,877</b>	<b>4,777</b>	<b>64,055</b>	<b>7,387</b>	<b>52</b>	<b>196</b>	<b>264</b>	<b>124</b>
<b>2011</b> January .....	90,021	1,322	1,745	239	529	5,953	540	4	17	21	11
February .....	73,474	911	1,024	127	417	4,148	484	4	16	19	R 11
March .....	72,458	885	1,153	124	506	4,692	482	5	15	21	12
April .....	66,930	991	1,384	96	321	4,078	521	4	12	20	12
May .....	73,338	957	1,286	72	344	4,034	572	4	13	21	12
June .....	83,908	954	1,303	123	419	4,474	699	4	16	22	12
July .....	94,037	1,120	1,609	223	501	5,458	939	4	17	22	13
August .....	92,012	816	1,375	130	451	4,575	921	4	17	22	13
September .....	76,569	716	1,002	140	439	4,052	684	4	15	21	12
October .....	69,458	730	990	128	319	3,445	575	4	14	22	12
November .....	66,919	748	968	134	241	3,052	543	4	14	22	12
December .....	73,359	870	965	123	350	3,707	614	4	16	23	12
<b>Total</b> .....	<b>932,484</b>	<b>11,021</b>	<b>14,803</b>	<b>1,658</b>	<b>4,837</b>	<b>51,667</b>	<b>7,574</b>	<b>50</b>	<b>182</b>	<b>255</b>	<b>R 143</b>
<b>2012</b> January .....	70,720	800	1,050	63	393	3,877	648	4	16	21	12
February .....	62,755	676	787	102	317	3,149	648	4	15	19	10
March .....	57,300	585	895	119	194	2,568	677	4	14	21	11
April .....	51,751	769	836	113	162	2,526	720	4	11	20	11
May .....	62,868	890	889	158	207	2,971	817	4	13	22	12
June .....	71,595	874	1,362	159	221	3,497	885	4	15	21	12
July .....	86,429	871	1,656	166	246	3,922	1,093	4	16	22	12
August .....	82,643	699	1,199	147	256	3,324	1,007	4	16	21	12
September .....	69,321	659	889	101	257	2,933	807	4	15	20	11
October .....	66,565	753	997	125	222	2,982	671	4	14	21	11
November .....	69,798	720	841	112	232	2,832	578	3	15	22	11
<b>11-Month Total</b> ...	<b>751,746</b>	<b>8,295</b>	<b>11,398</b>	<b>1,365</b>	<b>2,704</b>	<b>34,579</b>	<b>8,551</b>	<b>45</b>	<b>160</b>	<b>230</b>	<b>127</b>
<b>2011 11-Month Total</b> ...	<b>859,125</b>	<b>10,151</b>	<b>13,838</b>	<b>1,535</b>	<b>4,487</b>	<b>47,961</b>	<b>6,960</b>	<b>46</b>	<b>166</b>	<b>232</b>	<b>130</b>
<b>2010 11-Month Total</b> ...	<b>886,863</b>	<b>11,936</b>	<b>22,441</b>	<b>1,632</b>	<b>4,386</b>	<b>57,937</b>	<b>6,823</b>	<b>48</b>	<b>178</b>	<b>241</b>	<b>113</b>

<sup>a</sup> Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal synfuel.

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

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

<sup>d</sup> Jet fuel, kerosene, other petroleum liquids, waste oil, and, beginning in 2011, propane.

<sup>e</sup> Petroleum coke is converted from short tons to barrels by multiplying by 5.

<sup>f</sup> Natural gas, plus a small amount of supplemental gaseous fuels.

<sup>g</sup> Blast furnace gas, and other manufactured and waste gases derived from fossil fuels. Through 2010, also includes propane gas.

<sup>h</sup> Wood and wood-derived fuels.

<sup>i</sup> 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).

<sup>j</sup> 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).

<sup>k</sup> Through 1988, data are for electric utilities only. Beginning in 1989, data are for electric utilities and independent power producers.

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

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

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#electricity> for all available data beginning in 1973.

Sources: See end of section.

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

	Commercial Sector <sup>a</sup>				Industrial Sector <sup>b</sup>						
	Coal <sup>c</sup>	Petroleum <sup>d</sup>	Natural Gas <sup>e</sup>	Biomass Waste <sup>f</sup>	Coal <sup>c</sup>	Petroleum <sup>d</sup>	Natural Gas <sup>e</sup>	Other Gases <sup>g</sup>	Biomass		Other <sup>i</sup>
									Wood <sup>h</sup>	Waste <sup>f</sup>	
Thousand Short Tons	Thousand Barrels	Billion Cubic Feet	Trillion Btu	Thousand Short Tons	Thousand Barrels	Billion Cubic Feet	Trillion Btu				
<b>1989 Total</b> .....	1,125	1,967	30	22	24,867	25,444	914	195	926	35	85
<b>1990 Total</b> .....	1,191	2,056	46	28	27,781	36,159	1,055	275	1,125	41	86
<b>1995 Total</b> .....	1,419	1,245	78	40	29,363	34,448	1,258	290	1,255	38	95
<b>1996 Total</b> .....	1,660	1,246	82	53	29,434	38,661	1,289	325	1,249	39	89
<b>1997 Total</b> .....	1,738	1,584	87	58	29,853	37,265	1,282	283	1,259	41	102
<b>1998 Total</b> .....	1,443	1,807	87	54	28,553	38,910	1,355	305	1,211	42	93
<b>1999 Total</b> .....	1,490	1,613	84	54	27,763	37,312	1,401	331	1,213	31	99
<b>2000 Total</b> .....	1,547	1,615	85	47	28,031	30,520	1,386	331	1,244	35	108
<b>2001 Total</b> .....	1,448	1,832	79	25	25,755	26,817	1,310	248	1,054	27	101
<b>2002 Total</b> .....	1,405	1,250	74	26	26,232	25,163	1,240	245	1,136	34	92
<b>2003 Total</b> .....	1,816	1,449	58	29	24,846	26,212	1,144	253	1,097	34	103
<b>2004 Total</b> .....	1,917	2,009	72	34	26,613	28,857	1,191	295	1,193	24	94
<b>2005 Total</b> .....	1,922	1,630	68	34	25,875	27,380	1,084	264	1,166	34	94
<b>2006 Total</b> .....	1,886	935	68	36	25,262	22,706	1,115	277	1,216	33	102
<b>2007 Total</b> .....	1,927	752	70	31	22,537	22,207	1,050	268	1,148	36	98
<b>2008 Total</b> .....	2,021	671	66	34	21,902	13,222	955	239	1,084	35	60
<b>2009 Total</b> .....	1,798	521	76	36	19,766	14,228	990	204	955	35	82
<b>2010</b> January .....	193	55	7	3	2,094	1,128	90	17	86	4	6
February .....	167	47	7	3	1,978	1,021	80	15	79	4	7
March .....	149	26	7	3	2,124	817	84	18	86	4	7
April .....	117	24	6	3	2,220	761	79	18	83	5	7
May .....	118	28	6	4	2,010	796	82	18	83	3	7
June .....	135	26	6	3	1,898	835	84	18	85	3	8
July .....	142	59	8	3	2,122	883	91	17	88	3	8
August .....	152	46	9	3	2,194	849	95	19	88	3	8
September .....	133	27	7	3	1,941	780	87	18	87	3	8
October .....	121	21	7	3	1,958	899	84	17	86	5	8
November .....	128	22	7	3	1,854	924	82	17	86	5	8
December .....	165	55	8	3	2,246	1,045	92	19	91	4	8
<b>Total</b> .....	<b>1,720</b>	<b>437</b>	<b>86</b>	<b>36</b>	<b>24,638</b>	<b>10,740</b>	<b>1,029</b>	<b>210</b>	<b>1,029</b>	<b>47</b>	<b>91</b>
<b>2011</b> January .....	189	103	7	3	2,082	1,031	90	18	94	4	7
February .....	173	48	6	3	1,800	856	81	18	83	4	7
March .....	164	26	6	3	1,891	788	82	19	88	4	8
April .....	124	8	6	3	1,787	791	83	18	84	3	8
May .....	124	12	7	4	1,836	791	87	19	82	3	8
June .....	130	9	7	4	1,843	764	88	20	88	3	8
July .....	145	23	9	4	1,946	714	97	20	90	3	9
August .....	129	20	9	4	1,962	703	99	20	90	3	8
September .....	122	23	8	4	1,788	762	91	20	88	3	7
October .....	110	14	7	4	1,748	830	85	20	86	4	8
November .....	117	28	7	4	1,712	767	86	19	90	5	8
December .....	139	19	8	4	1,923	812	96	20	95	4	8
<b>Total</b> .....	<b>1,668</b>	<b>333</b>	<b>87</b>	<b>43</b>	<b>22,319</b>	<b>9,610</b>	<b>1,063</b>	<b>232</b>	<b>1,057</b>	<b>43</b>	<b>94</b>
<b>2012</b> January .....	162	27	9	4	1,913	1,065	98	21	93	4	4
February .....	141	20	8	4	1,708	847	90	21	86	4	3
March .....	135	23	8	4	1,707	1,026	90	22	82	4	4
April .....	115	16	7	3	1,542	997	87	21	80	4	3
May .....	121	17	7	4	1,689	921	93	22	87	4	4
June .....	114	29	8	3	1,634	932	94	21	85	3	4
July .....	118	38	8	4	1,773	876	101	21	89	4	4
August .....	126	32	8	3	1,827	942	98	22	86	4	4
September .....	116	25	8	3	1,613	896	93	19	85	4	4
October .....	115	28	8	4	1,796	989	95	18	85	4	4
November .....	134	25	7	4	1,728	1,011	97	19	86	4	4
<b>11-Month Total</b> ...	<b>1,397</b>	<b>279</b>	<b>86</b>	<b>40</b>	<b>18,928</b>	<b>10,502</b>	<b>1,037</b>	<b>227</b>	<b>944</b>	<b>41</b>	<b>41</b>
<b>2011 11-Month Total</b> ...	<b>1,529</b>	<b>314</b>	<b>79</b>	<b>39</b>	<b>20,395</b>	<b>8,798</b>	<b>967</b>	<b>212</b>	<b>963</b>	<b>39</b>	<b>85</b>
<b>2010 11-Month Total</b> ...	<b>1,555</b>	<b>382</b>	<b>77</b>	<b>33</b>	<b>22,392</b>	<b>9,695</b>	<b>937</b>	<b>191</b>	<b>937</b>	<b>42</b>	<b>83</b>

<sup>a</sup> Commercial combined-heat-and-power (CHP) and commercial electricity-only plants.

<sup>b</sup> Industrial combined-heat-and-power (CHP) and industrial electricity-only plants.

<sup>c</sup> Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal syngas.

<sup>d</sup> Distillate fuel oil, residual fuel oil, petroleum coke, jet fuel, kerosene, other petroleum, waste oil, and, beginning in 2011, propane.

<sup>e</sup> Natural gas, plus a small amount of supplemental gaseous fuels.

<sup>f</sup> 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).

<sup>g</sup> Blast furnace gas, and other manufactured and waste gases derived from fossil fuels. Through 2010, also includes propane gas.

<sup>h</sup> Wood and wood-derived fuels.

<sup>i</sup> 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).

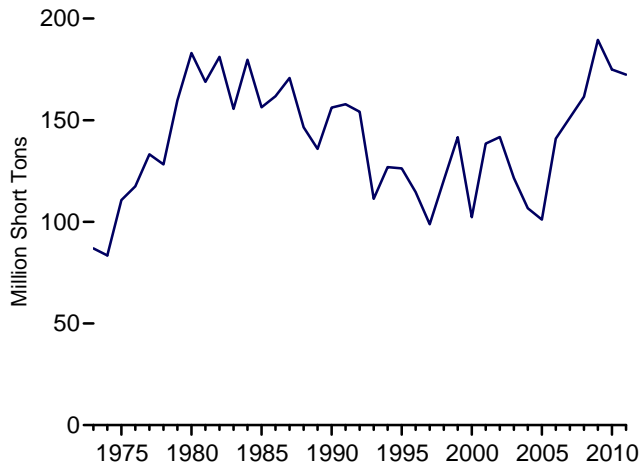
Notes: • See Note, "Classification of Power Plants Into Energy-Use Sectors," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#electricity> for all available data beginning in 1989.

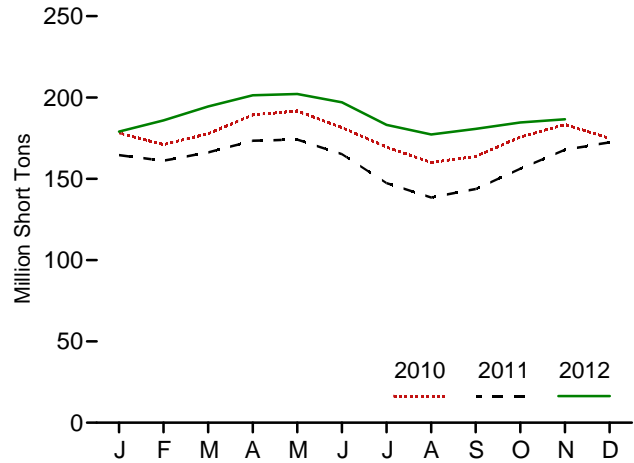
Sources: • **1989-1997:** U.S. Energy Information Administration (EIA), Form EIA-867, "Annual Nonutility Power Producer Report." • **1998-2000:** EIA, Form EIA-860B, "Annual Electric Generator Report—Nonutility." • **2001-2003:** EIA, Form EIA-906, "Power Plant Report." • **2004-2007:** EIA, Form EIA-906,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

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

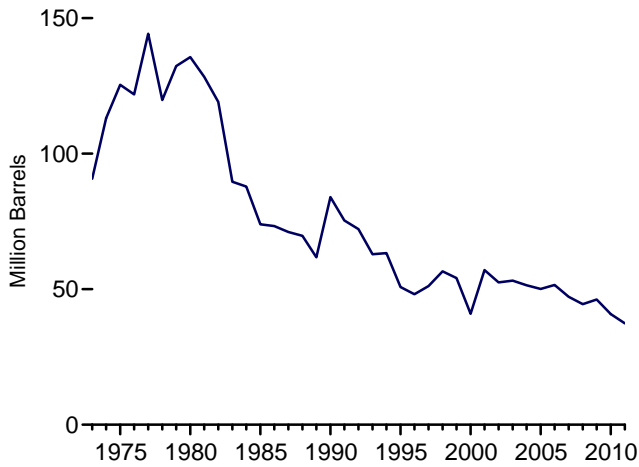
Coal, 1973-2011



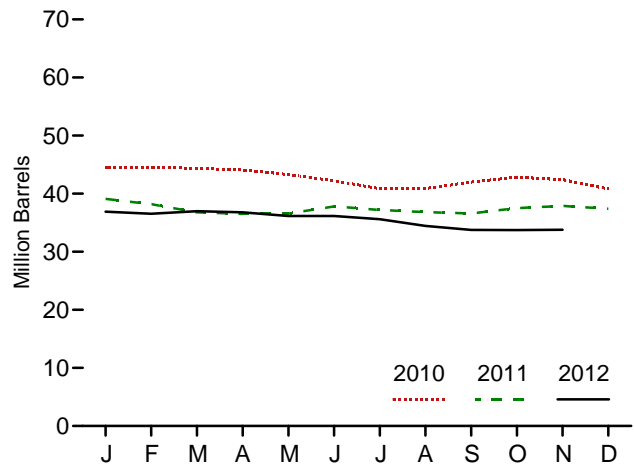
Coal, Monthly



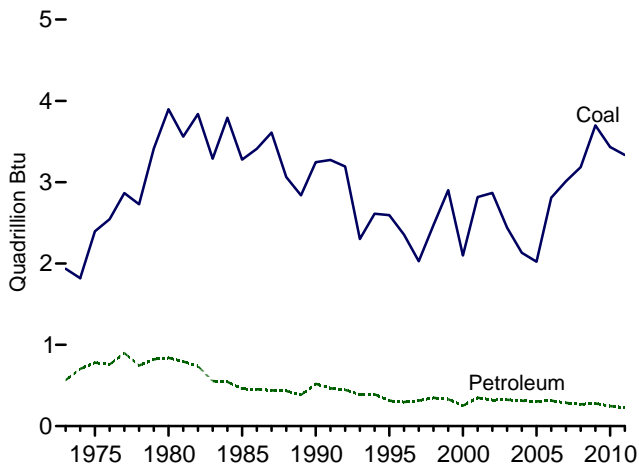
Total Petroleum, 1973-2011



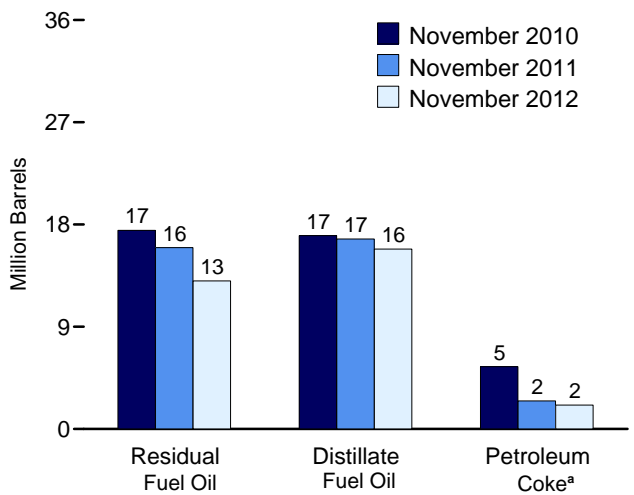
Total Petroleum, Monthly



Coal and Petroleum Stocks, 1973-2011



Petroleum by Major Type, End of Month



<sup>a</sup> Converted from short tons to barrels by multiplying by 5.  
 Web Page: <http://www.eia.gov/totalenergy/data/monthly/#electricity>.  
 Sources: Tables 7.5, A1, and A5 (column 6).

**Table 7.5 Stocks of Coal and Petroleum: Electric Power Sector**

	Coal <sup>a</sup>	Petroleum				Total <sup>e</sup>
		Distillate Fuel Oil <sup>b</sup>	Residual Fuel Oil <sup>c</sup>	Other Liquids <sup>d</sup>	Petroleum Coke <sup>e</sup>	
		Thousand Barrels			Thousand Short Tons	
Thousand Short Tons	Thousand Barrels			Thousand Short Tons	Thousand Barrels	
1973 Year	86,967	10,095	79,121	NA	312	90,776
1975 Year	110,724	16,432	108,825	NA	31	125,413
1980 Year	183,010	30,023	105,351	NA	52	135,635
1985 Year	156,376	16,386	57,304	NA	49	73,933
1990 Year	156,166	16,471	67,030	NA	94	83,970
1995 Year	126,304	15,392	35,102	NA	65	50,821
1996 Year	114,623	15,216	32,473	NA	91	48,146
1997 Year	98,826	15,456	33,336	NA	469	51,138
1998 Year	120,501	16,343	37,451	NA	559	56,591
1999 Year <sup>f</sup>	141,604	17,995	34,256	NA	372	54,109
2000 Year	102,296	15,127	24,748	NA	211	40,932
2001 Year	138,496	20,486	34,594	NA	390	57,031
2002 Year	141,714	17,413	25,723	800	1,711	52,490
2003 Year	121,567	19,153	25,820	779	1,484	53,170
2004 Year	106,669	19,275	26,596	879	937	51,434
2005 Year	101,137	18,778	27,624	1,012	530	50,062
2006 Year	140,964	18,013	28,823	1,380	674	51,583
2007 Year	151,221	18,395	24,136	1,902	554	47,203
2008 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 January	178,091	17,193	18,035	2,198	1,406	44,454
February	171,026	17,409	18,532	2,222	1,280	44,562
March	177,742	17,353	18,679	2,105	1,240	44,337
April	189,260	17,295	18,353	2,228	1,243	44,090
May	191,669	17,185	17,935	2,235	1,188	43,294
June	181,490	17,040	17,411	2,172	1,117	42,209
July	169,504	16,917	16,441	2,268	1,046	40,856
August	159,987	16,737	16,288	2,292	1,112	40,878
September	163,776	16,608	17,269	2,330	1,158	41,996
October	175,686	16,698	17,781	2,377	1,197	42,840
November	183,389	17,024	17,492	2,410	1,098	42,414
December	174,917	16,758	16,629	2,319	1,019	40,800
2011 January	164,575	16,613	16,012	2,492	799	39,111
February	161,064	16,565	15,552	2,545	707	38,198
March	166,255	16,367	15,405	2,546	495	36,794
April	173,427	16,153	15,181	2,561	526	36,525
May	174,093	15,997	15,209	2,539	563	36,558
June	165,149	16,379	16,359	2,601	496	37,820
July	147,296	16,170	16,111	2,622	463	37,218
August	138,527	16,162	15,843	2,631	437	36,822
September	143,711	16,311	15,726	2,628	385	36,593
October	156,196	16,567	16,044	2,681	440	37,495
November	167,754	16,729	15,964	2,744	494	37,906
December	172,387	16,649	15,491	2,707	508	37,387
2012 January	179,030	16,712	15,232	2,735	443	36,893
February	185,901	16,532	15,121	2,778	420	36,532
March	194,455	16,423	15,244	2,815	500	36,984
April	201,368	16,325	15,082	2,856	507	36,795
May	202,184	16,232	14,747	2,872	459	36,147
June	197,052	16,152	14,500	2,900	519	36,145
July	183,119	16,581	13,728	2,941	474	35,617
August	177,246	16,023	13,509	2,840	413	34,439
September	180,648	15,920	13,317	2,748	358	33,773
October	184,661	15,813	13,148	2,774	398	33,725
November	186,633	15,837	13,039	2,808	423	33,796

<sup>a</sup> Anthracite, bituminous coal, subbituminous coal, and lignite.

<sup>b</sup> 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.

<sup>c</sup> 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.

<sup>d</sup> Jet fuel and kerosene. Through 2003, data also include a small amount of waste oil.

<sup>e</sup> Petroleum coke is converted from short tons to barrels by multiplying by 5.

<sup>f</sup> 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

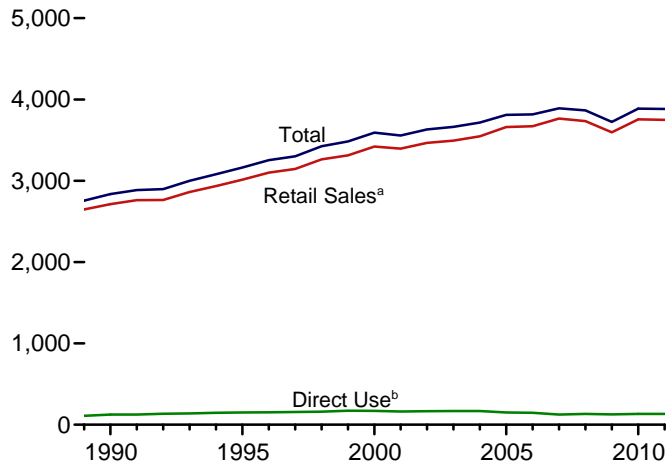
are at end of period. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#electricity> for all available data beginning in 1973.

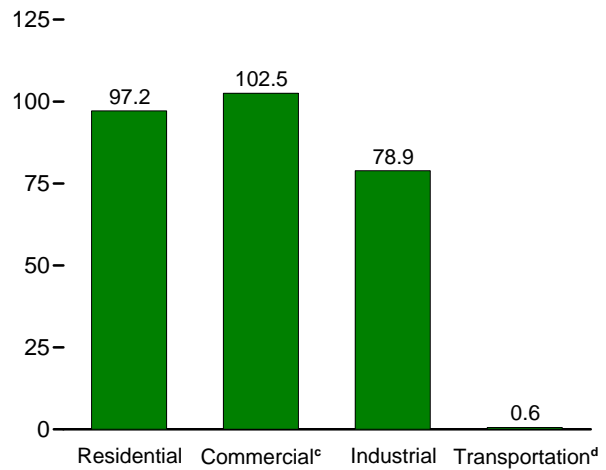
Sources: • **1973-September 1977:** Federal Power Commission, Form FPC-4, "Monthly Power Plant Report." • **October 1977-1981:** Federal Energy Regulatory Commission, Form FPC-4, "Monthly Power Plant Report." • **1982-1988:** U.S. Energy Information Administration (EIA), Form EIA-759, "Monthly Power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

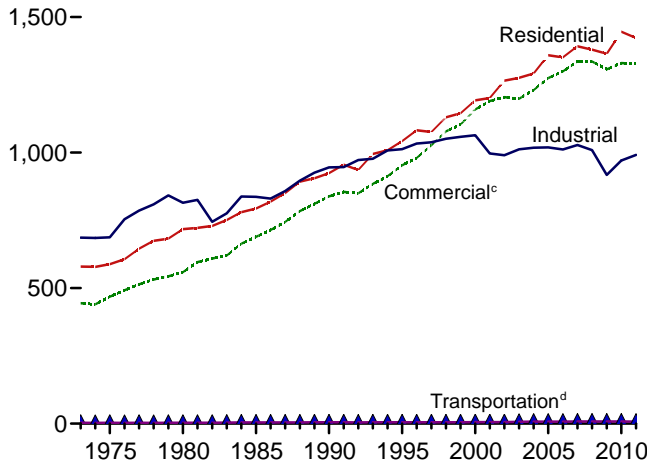
Electricity End Use Overview, 1989-2011



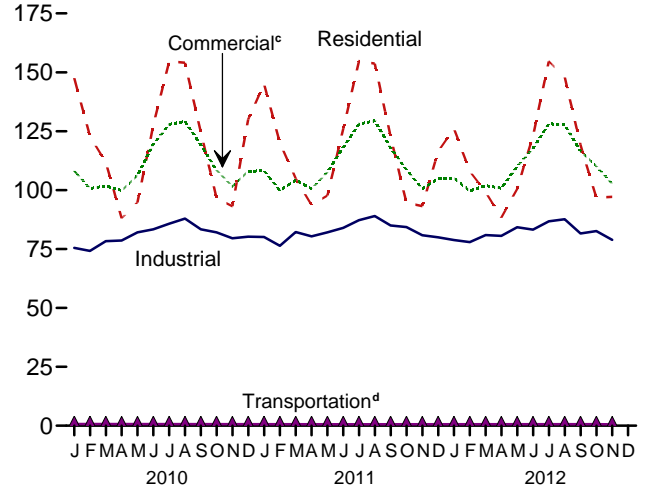
Retail Sales<sup>a</sup> by Sector, November 2012



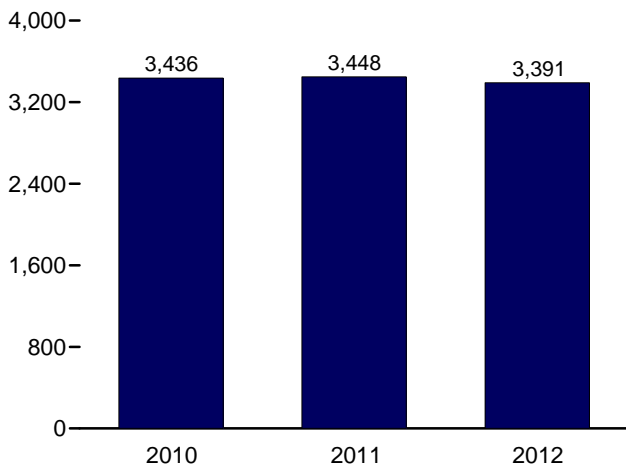
Retail Sales<sup>a</sup> by Sector, 1973-2011



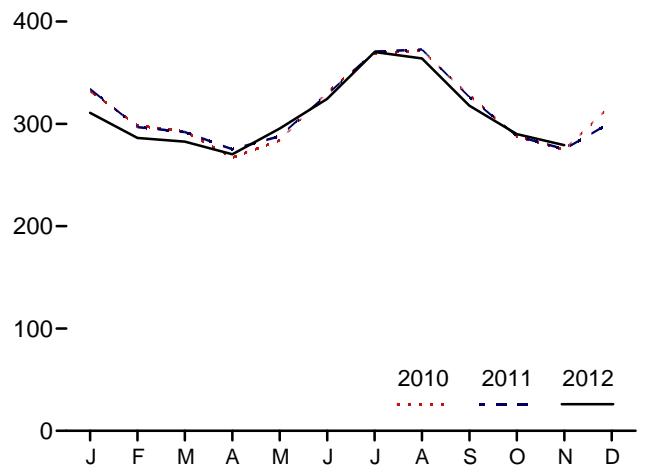
Retail Sales<sup>a</sup> by Sector, Monthly



Retail Sales<sup>a</sup> Total, January-November



Retail Sales<sup>a</sup> Total, Monthly



<sup>a</sup> Electricity retail sales to ultimate customers reported by utilities and other energy service providers.

<sup>b</sup> See "Direct Use" in Glossary.

<sup>c</sup> Commercial sector, including public street and highway lighting, inte-

departmental sales, and other sales to public authorities.

<sup>d</sup> 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 <sup>a</sup>					Direct Use <sup>f</sup>	Total End Use <sup>g</sup>	Discontinued Retail Sales Series	
	Residential	Commercial <sup>b</sup>	Industrial <sup>c</sup>	Transportation <sup>d</sup>	Total Retail Sales <sup>e</sup>			Commercial (Old) <sup>h</sup>	Other (Old) <sup>i</sup>
<b>1973 Total</b> .....	579,231	E 444,505	686,085	E 3,087	1,712,909	NA	1,712,909	388,266	59,326
<b>1975 Total</b> .....	588,140	E 468,296	687,680	E 2,974	1,747,091	NA	1,747,091	403,049	68,222
<b>1980 Total</b> .....	717,495	558,643	815,067	3,244	2,094,449	NA	2,094,449	488,155	73,732
<b>1985 Total</b> .....	793,934	689,121	836,772	4,147	2,323,974	NA	2,323,974	605,989	87,279
<b>1990 Total</b> .....	924,019	838,263	945,522	4,751	2,712,555	124,529	2,837,084	751,027	91,988
<b>1995 Total</b> .....	1,042,501	953,117	1,012,693	4,975	3,013,287	150,677	3,163,963	862,685	95,407
<b>1996 Total</b> .....	1,082,512	980,061	1,033,631	4,923	3,101,127	152,638	3,253,765	887,445	97,539
<b>1997 Total</b> .....	1,075,880	1,026,626	1,038,197	4,907	3,145,610	156,239	3,301,849	928,633	102,901
<b>1998 Total</b> .....	1,130,109	1,077,957	1,051,203	4,962	3,264,231	160,866	3,425,097	979,401	103,518
<b>1999 Total</b> .....	1,144,923	1,103,821	1,058,217	5,126	3,312,087	171,629	3,483,716	1,001,996	106,952
<b>2000 Total</b> .....	1,192,446	1,159,347	1,064,239	5,382	3,421,414	170,943	3,592,357	1,055,232	109,496
<b>2001 Total</b> .....	1,201,607	1,190,518	996,609	5,724	3,394,458	162,649	3,557,107	1,083,069	113,174
<b>2002 Total</b> .....	1,265,180	1,204,531	990,238	5,517	3,465,466	166,184	3,631,650	1,104,497	105,552
<b>2003 Total</b> .....	1,275,824	1,198,728	1,012,373	6,810	3,493,734	168,295	3,662,029	--	--
<b>2004 Total</b> .....	1,291,982	1,230,425	1,017,850	7,224	3,547,479	168,470	3,715,949	--	--
<b>2005 Total</b> .....	1,359,227	1,275,079	1,019,156	7,506	3,660,969	150,016	3,810,984	--	--
<b>2006 Total</b> .....	1,351,520	1,299,744	1,011,298	7,358	3,669,919	146,927	3,816,845	--	--
<b>2007 Total</b> .....	1,392,241	1,336,315	1,027,832	8,173	3,764,561	125,670	3,890,231	--	--
<b>2008 Total</b> .....	1,379,981	1,335,981	1,009,300	7,700	3,732,962	132,197	3,865,159	--	--
<b>2009 Total</b> .....	1,364,474	1,307,168	917,442	7,781	3,596,865	126,938	3,723,803	--	--
<b>2010</b> January .....	147,500	108,120	75,506	715	331,841	E 11,084	342,925	--	--
February .....	122,840	100,747	74,164	689	298,440	E 10,144	308,585	--	--
March .....	111,790	101,756	78,303	656	292,505	E 10,884	303,389	--	--
April .....	88,046	99,791	78,597	600	267,034	E 10,091	277,125	--	--
May .....	94,843	106,176	82,088	606	283,712	E 10,611	294,323	--	--
June .....	127,496	119,388	83,347	658	330,889	E 11,037	341,927	--	--
July .....	154,688	127,925	85,725	667	369,006	E 11,690	380,696	--	--
August .....	154,053	129,143	87,904	628	371,728	E 12,298	384,026	--	--
September .....	124,582	119,137	83,353	639	327,711	E 11,221	338,932	--	--
October .....	96,688	108,461	82,046	615	287,811	E 10,605	298,416	--	--
November .....	93,166	101,524	79,575	607	274,871	E 10,520	285,392	--	--
December .....	130,015	108,031	80,264	633	318,943	E 11,725	330,668	--	--
<b>Total</b> .....	<b>1,445,708</b>	<b>1,330,199</b>	<b>970,873</b>	<b>7,712</b>	<b>3,754,493</b>	<b>131,910</b>	<b>3,886,403</b>	--	--
<b>2011</b> January .....	145,054	108,243	80,077	710	334,084	E 11,245	345,329	--	--
February .....	120,121	99,789	76,332	637	296,879	E 10,042	306,922	--	--
March .....	104,921	104,263	82,196	664	292,044	E 10,398	302,442	--	--
April .....	93,700	100,505	80,356	629	275,190	E 10,380	285,570	--	--
May .....	97,688	107,624	82,095	619	288,026	E 10,681	298,707	--	--
June .....	125,983	118,169	83,941	643	328,736	E 11,181	339,917	--	--
July .....	154,729	128,063	87,245	650	370,686	E 12,136	382,822	--	--
August .....	153,739	129,371	89,014	625	372,749	E 12,292	385,041	--	--
September .....	122,720	117,951	84,959	634	326,263	E 11,199	337,462	--	--
October .....	94,585	108,655	84,287	616	288,144	E 10,504	298,647	--	--
November .....	93,220	100,552	80,858	590	275,220	E 10,888	286,108	--	--
December .....	116,341	104,873	79,956	656	301,826	E 11,808	313,634	--	--
<b>Total</b> .....	<b>1,422,801</b>	<b>1,328,057</b>	<b>991,316</b>	<b>7,672</b>	<b>3,749,846</b>	<b>132,754</b>	<b>3,882,600</b>	--	--
<b>2012</b> January .....	126,208	105,118	78,821	666	310,813	E 11,702	322,515	--	--
February .....	107,951	99,682	77,898	646	286,177	E 11,014	297,191	--	--
March .....	99,153	101,930	80,911	619	282,613	E 10,750	293,363	--	--
April .....	88,300	100,839	80,604	604	270,348	E 10,366	280,713	--	--
May .....	100,478	110,062	84,273	606	295,420	E 11,258	306,678	--	--
June .....	122,992	117,651	83,202	610	324,455	E 11,252	335,708	--	--
July .....	154,649	128,157	86,762	642	370,210	E 12,216	382,426	--	--
August .....	147,991	127,713	87,629	650	363,984	E 11,869	375,853	--	--
September .....	119,201	116,483	81,560	628	317,873	E 11,073	328,945	--	--
October .....	96,707	110,111	82,600	619	290,037	E 11,108	301,144	--	--
November .....	97,174	102,546	78,877	580	279,178	E 11,389	290,567	--	--
<b>11-Month Total</b> ...	<b>1,260,803</b>	<b>1,220,293</b>	<b>903,139</b>	<b>6,871</b>	<b>3,391,107</b>	<b>E 123,996</b>	<b>3,515,103</b>	--	--
<b>2011 11-Month Total</b> ...	<b>1,306,460</b>	<b>1,223,185</b>	<b>911,359</b>	<b>7,017</b>	<b>3,448,020</b>	<b>E 120,946</b>	<b>3,568,967</b>	--	--
<b>2010 11-Month Total</b> ...	<b>1,315,694</b>	<b>1,222,168</b>	<b>890,609</b>	<b>7,080</b>	<b>3,435,550</b>	<b>E 120,185</b>	<b>3,555,735</b>	--	--

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

<sup>b</sup> Commercial sector, including public street and highway lighting, interdepartmental sales, and other sales to public authorities.

<sup>c</sup> Industrial sector. Through 2002, excludes agriculture and irrigation; beginning in 2003, includes agriculture and irrigation.

<sup>d</sup> Transportation sector, including sales to railroads and railways.

<sup>e</sup> The sum of "Residential," "Commercial," "Industrial," and "Transportation."

<sup>f</sup> 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.

<sup>g</sup> The sum of "Total Retail Sales" and "Direct Use."

<sup>h</sup> "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.

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

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

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

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#electricity> for all available data beginning in 1973.

Sources: See end of section.

## Electricity

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

The U.S. Energy Information Administration (EIA) classifies power plants (both electricity-only and combined-heat-and-power plants) into energy-use sectors based on the North American Industry Classification System (NAICS), which replaced the Standard Industrial Classification (SIC) system in 1997. Plants with a NAICS code of 22 are assigned to the Electric Power Sector. Those with NAICS codes beginning with 11 (agriculture, forestry, fishing, and hunting); 21 (mining, including oil and gas extraction); 23 (construction); 31–33 (manufacturing); 2212 (natural gas distribution); and 22131 (water supply and irrigation systems) are assigned to the Industrial Sector. Those with all other codes are assigned to the Commercial Sector. Form EIA-860, “Annual Electric Generator Report,” asks respondents to indicate the primary purpose of the facility by assigning a NAICS code from the list at [http://www.eia.gov/survey/form/eia\\_860/instructions.doc](http://www.eia.gov/survey/form/eia_860/instructions.doc).

### Table 7.1 Sources

#### Net Generation, Electric Power Sector

Table 7.2b.

#### Net Generation, Commercial and Industrial Sectors

Table 7.2c.

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

1973–September 1977: Unpublished Federal Power Commission data.

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

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

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

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

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

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

#### Imports and Exports, Electricity Trade with Canada, 1990 Forward

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

and service) by Canada from the United States.

#### Imports and Exports, Electricity Trade with Mexico, 1990 Forward

DOE, Office of Electricity Delivery and Energy Reliability, Form OE-781R, “Monthly Electricity Imports and Exports Report,” and predecessor form. For 2001 forward, data from the California Independent System Operator are used in combination with the Form OE-781 values to estimate electricity trade with Mexico.

#### T&D Losses and Unaccounted for

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

#### End Use

Table 7.6.

### Table 7.2b Sources

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

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

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

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

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

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

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

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

### Table 7.2c Sources

#### Industrial Sector, Hydroelectric Power, 1973–1988

1973–September 1977: Federal Power Commission (FPC), Form FPC-4, “Monthly Power Plant Report,” for plants with generating capacity exceeding 10 megawatts, and FPC, Form FPC-12C, “Industrial Electric Generating Capacity,” for all other plants.

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

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



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

### All Data, 1989 Forward

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

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

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

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

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

### Table 7.3b Sources

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

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

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

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

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

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

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

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

### Table 7.4b Sources

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

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

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

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

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

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

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

2008 forward: EIA, Form EIA-923, “Power Plant

Operations Report.”

### Table 7.6 Sources

#### Retail Sales, Residential and Industrial

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

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

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

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

1984–1997: EIA, Form EIA-861, “Annual Electric Utility Report.”

1998 forward: EIA, *Electric Power Monthly*, January 2013, Table 5.1.

#### Retail Sales, Commercial

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

[http://www.eia.gov/state/seds/sep\\_use/notes/use\\_elec.pdf](http://www.eia.gov/state/seds/sep_use/notes/use_elec.pdf).

2003 forward: EIA, *Electric Power Monthly*, January 2013, Table 5.1.

#### Retail Sales, Transportation

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

[http://www.eia.gov/state/seds/sep\\_use/notes/use\\_elec.pdf](http://www.eia.gov/state/seds/sep_use/notes/use_elec.pdf).

2003 forward: EIA, *Electric Power Monthly*, January 2013, 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 forward: EIA, *Electric Power Annual 2011*, January 2013, Table 2.2.

#### Direct Use, Monthly

Annual shares are calculated as annual direct use divided by annual commercial and industrial net generation (on Table 7.1). Then monthly direct use estimates are calculated as the annual share multiplied by the monthly commercial and industrial net generation values. For 2012, the 2011 annual share is used.

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

1973–2002: See sources for “Residential” and “Industrial.”

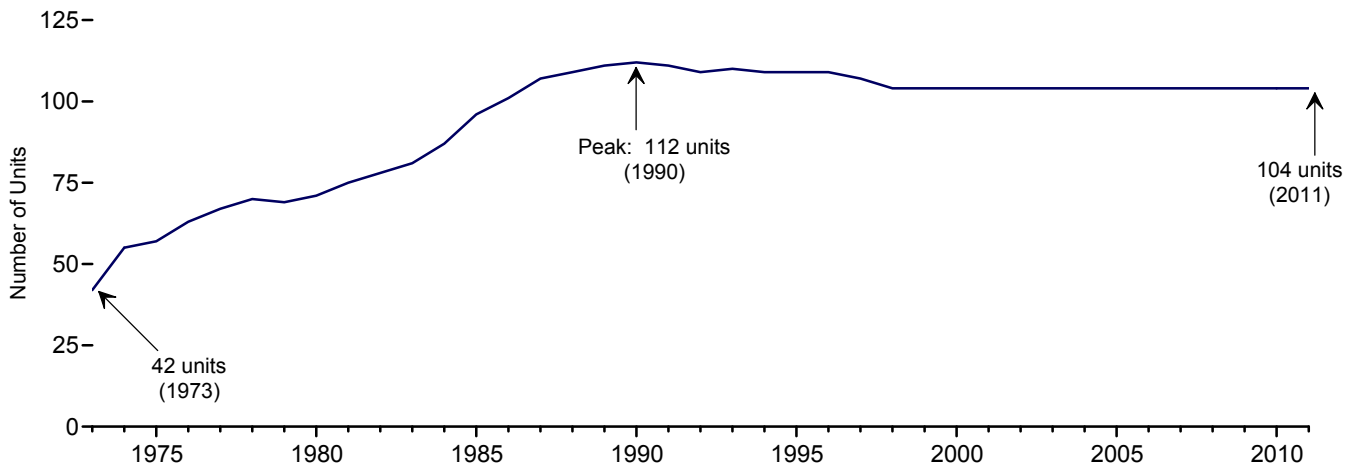
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# 8. Nuclear Energy

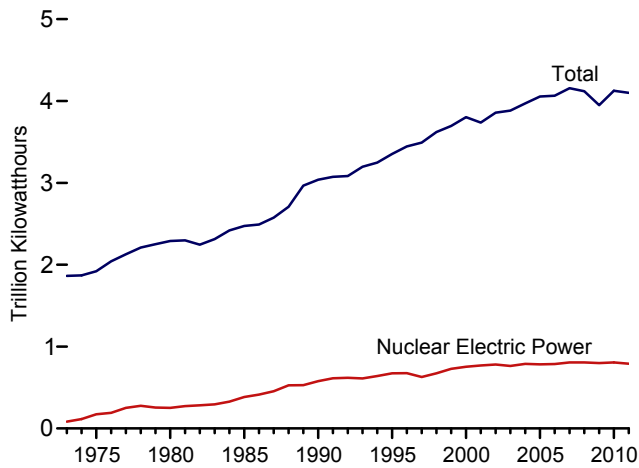
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## Figure 8.1 Nuclear Energy Overview

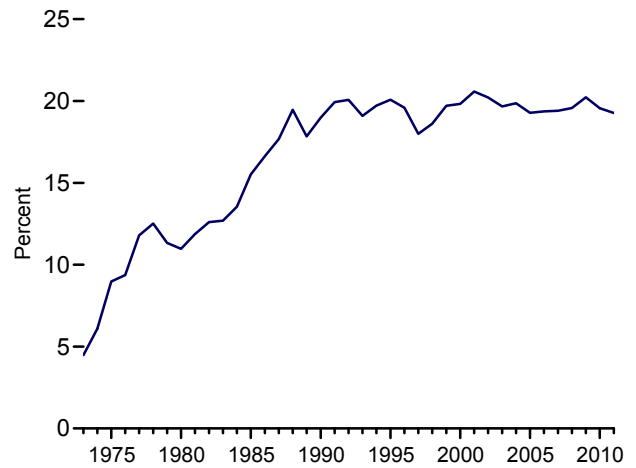
Operable Units, End of Year, 1973-2011



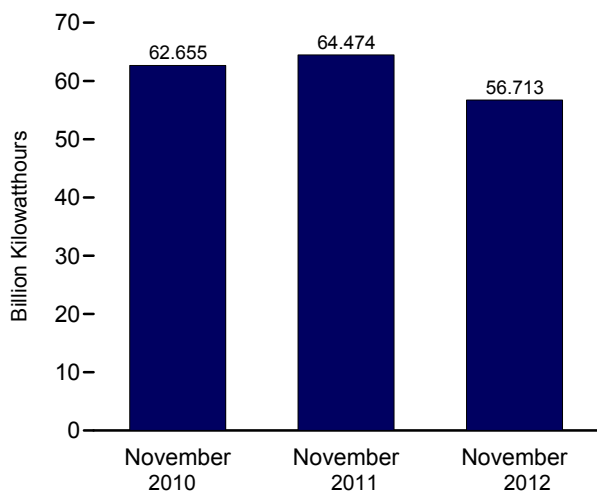
Electricity Net Generation, 1973-2011



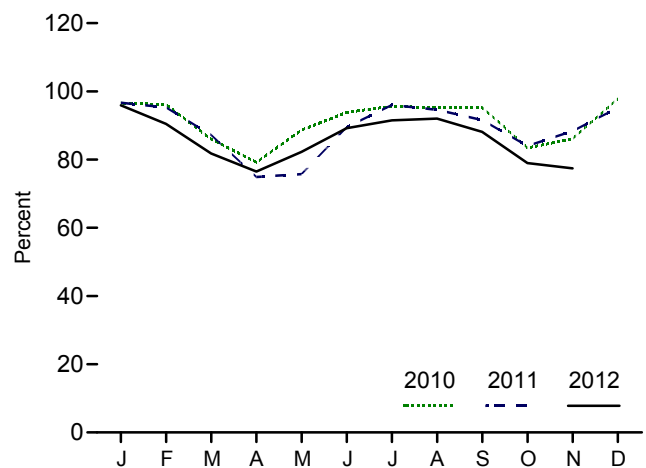
Nuclear Share of Electricity Net Generation, 1973-2011



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 <sup>a,b</sup>	Net Summer Capacity of Operable Units <sup>b,c</sup>	Nuclear Electricity Net Generation	Nuclear Share of Electricity Net Generation	Capacity Factor <sup>d</sup>
	Number	Million Kilowatts	Million Kilowatthours	Percent	
<b>1973 Total</b> .....	<b>42</b>	<b>22.683</b>	<b>83,479</b>	<b>4.5</b>	<b>53.5</b>
<b>1975 Total</b> .....	<b>57</b>	<b>37.267</b>	<b>172,505</b>	<b>9.0</b>	<b>55.9</b>
<b>1980 Total</b> .....	<b>71</b>	<b>51.810</b>	<b>251,116</b>	<b>11.0</b>	<b>56.3</b>
<b>1985 Total</b> .....	<b>96</b>	<b>79.397</b>	<b>383,691</b>	<b>15.5</b>	<b>58.0</b>
<b>1990 Total</b> .....	<b>112</b>	<b>99.624</b>	<b>576,862</b>	<b>19.0</b>	<b>66.0</b>
<b>1995 Total</b> .....	<b>109</b>	<b>99.515</b>	<b>673,402</b>	<b>20.1</b>	<b>77.4</b>
<b>1996 Total</b> .....	<b>109</b>	<b>100.784</b>	<b>674,729</b>	<b>19.6</b>	<b>76.2</b>
<b>1997 Total</b> .....	<b>107</b>	<b>99.716</b>	<b>628,644</b>	<b>18.0</b>	<b>71.1</b>
<b>1998 Total</b> .....	<b>104</b>	<b>97.070</b>	<b>673,702</b>	<b>18.6</b>	<b>78.2</b>
<b>1999 Total</b> .....	<b>104</b>	<b>97.411</b>	<b>728,254</b>	<b>19.7</b>	<b>85.3</b>
<b>2000 Total</b> .....	<b>104</b>	<b>97.860</b>	<b>753,893</b>	<b>19.8</b>	<b>88.1</b>
<b>2001 Total</b> .....	<b>104</b>	<b>98.159</b>	<b>768,826</b>	<b>20.6</b>	<b>89.4</b>
<b>2002 Total</b> .....	<b>104</b>	<b>98.657</b>	<b>780,064</b>	<b>20.2</b>	<b>90.3</b>
<b>2003 Total</b> .....	<b>104</b>	<b>99.209</b>	<b>763,733</b>	<b>19.7</b>	<b>87.9</b>
<b>2004 Total</b> .....	<b>104</b>	<b>99.628</b>	<b>788,528</b>	<b>19.9</b>	<b>90.1</b>
<b>2005 Total</b> .....	<b>104</b>	<b>99.988</b>	<b>781,986</b>	<b>19.3</b>	<b>89.3</b>
<b>2006 Total</b> .....	<b>104</b>	<b>100.334</b>	<b>787,219</b>	<b>19.4</b>	<b>89.6</b>
<b>2007 Total</b> .....	<b>104</b>	<b>100.266</b>	<b>806,425</b>	<b>19.4</b>	<b>91.8</b>
<b>2008 Total</b> .....	<b>104</b>	<b>100.755</b>	<b>806,208</b>	<b>19.6</b>	<b>91.1</b>
<b>2009 Total</b> .....	<b>104</b>	<b>101.004</b>	<b>798,855</b>	<b>20.2</b>	<b>90.3</b>
<b>2010 January</b> .....	104	<sup>e</sup> 101.002	72,569	20.1	<sup>E</sup> 96.6
February .....	104	<sup>E</sup> 101.000	65,245	20.4	<sup>E</sup> 96.1
March .....	104	<sup>E</sup> 100.998	64,635	20.7	<sup>E</sup> 86.0
April .....	104	<sup>E</sup> 100.996	57,611	20.0	<sup>E</sup> 79.2
May .....	104	<sup>E</sup> 101.063	66,658	20.3	<sup>E</sup> 88.7
June .....	104	<sup>E</sup> 101.094	68,301	18.2	<sup>E</sup> 93.8
July .....	104	<sup>E</sup> 101.092	71,913	17.6	<sup>E</sup> 95.6
August .....	104	<sup>E</sup> 101.090	71,574	17.5	<sup>E</sup> 95.2
September .....	104	<sup>E</sup> 101.088	69,371	20.0	<sup>E</sup> 95.3
October .....	104	<sup>E</sup> 101.104	62,751	20.4	<sup>E</sup> 83.4
November .....	104	<sup>E</sup> 101.129	62,655	20.5	<sup>E</sup> 86.0
December .....	104	101.167	73,683	20.3	97.9
<b>Total</b> .....	<b>104</b>	<b>101.167</b>	<b>806,968</b>	<b>19.6</b>	<b>91.1</b>
<b>2011 January</b> .....	104	<sup>E</sup> 101.167	72,743	20.0	<sup>E</sup> 96.6
February .....	104	<sup>E</sup> 101.167	64,789	20.7	<sup>E</sup> 95.3
March .....	104	<sup>E</sup> 101.167	65,662	20.6	<sup>E</sup> 87.2
April .....	104	<sup>E</sup> 101.167	54,547	18.0	<sup>E</sup> 74.9
May .....	104	<sup>E</sup> 101.167	57,013	17.6	<sup>E</sup> 75.7
June .....	104	<sup>E</sup> 101.281	65,270	17.7	<sup>E</sup> 89.5
July .....	104	<sup>E</sup> 101.281	72,345	17.3	<sup>E</sup> 96.0
August .....	104	<sup>E</sup> 101.351	71,339	17.5	<sup>E</sup> 94.6
September .....	104	<sup>E</sup> 101.351	66,849	19.8	<sup>E</sup> 91.6
October .....	104	<sup>E</sup> 101.351	63,337	20.5	<sup>E</sup> 84.0
November .....	104	<sup>E</sup> 101.351	64,474	21.2	<sup>E</sup> 88.4
December .....	104	101.419	71,837	21.4	95.2
<b>Total</b> .....	<b>104</b>	<b>101.419</b>	<b>790,204</b>	<b>19.3</b>	<b>89.1</b>
<b>2012 January</b> .....	104	<sup>E</sup> 101.419	72,381	21.2	<sup>E</sup> 95.9
February .....	104	<sup>E</sup> 101.419	63,847	20.6	<sup>E</sup> 90.5
March .....	104	<sup>E</sup> 101.419	61,729	20.0	<sup>E</sup> 81.8
April .....	104	<sup>E</sup> 101.419	55,871	18.9	<sup>E</sup> 76.5
May .....	104	<sup>E</sup> 101.442	62,081	18.4	<sup>E</sup> 82.3
June .....	104	<sup>E</sup> 101.442	65,140	18.0	<sup>E</sup> 89.2
July .....	104	<sup>E</sup> 101.564	69,129	16.6	<sup>E</sup> 91.5
August .....	104	<sup>E</sup> 101.673	69,602	17.6	<sup>E</sup> 92.0
September .....	104	<sup>E</sup> 101.673	64,511	19.3	<sup>E</sup> 88.1
October .....	104	<sup>E</sup> 101.673	59,743	19.1	<sup>E</sup> 79.0
November .....	104	<sup>E</sup> 101.702	56,713	18.6	<sup>E</sup> 77.4
<b>11-Month Total</b> .....	<b>104</b>	<b><sup>E</sup> 101.702</b>	<b>700,748</b>	<b>18.8</b>	<b><sup>E</sup> 85.8</b>
<b>2011 11-Month Total</b> .....	<b>104</b>	<b>101.351</b>	<b>718,367</b>	<b>19.1</b>	<b>88.5</b>
<b>2010 11-Month Total</b> .....	<b>104</b>	<b>101.129</b>	<b>733,285</b>	<b>19.5</b>	<b>90.5</b>

<sup>a</sup> Total of nuclear generating units holding full-power licenses, or equivalent permission to operate, at end of period. See Note 1, "Operable Nuclear Reactors," at end of section. For additional information on nuclear generating units, see *Annual Energy Review 2011*, September 2012, Table 9.1, <http://www.eia.gov/totalenergy/data/annual/#nuclear>.

<sup>b</sup> At end of period.

<sup>c</sup> For the definition of "Net Summer Capacity," see Note 2, "Nuclear Capacity," at end of section.

<sup>d</sup> For an explanation of the method of calculating the capacity factor, see Note 2, "Nuclear Capacity," at end of section.

<sup>e</sup> Beginning in 2010, monthly capacity values are estimated in two steps: 1) updates 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 distributed evenly across the 12 months.

E=Estimate.

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> for all available data beginning in 1973.

Sources: See end of section.

## Nuclear Energy

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

- (a) In 1985 the five then-active Tennessee Valley Authority (TVA) units (Browns Ferry 1, 2, and 3, and Sequoyah 1 and 2) were shut down under a regulatory forced outage. All five units were idle for several years, restarting in 2007, 1991, 1995, 1988, and 1988, respectively and were counted as operable during the shutdowns.
- (b) Shippingport was shut down from 1974 through 1976 for conversion to a light-water breeder reactor, but is counted as operable from 1957 until its retirement in 1982.
- (c) Calvert Cliffs 2 was shut down in 1989 and 1990 for replacement of pressurizer heater sleeves but is counted as operable during those years.

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

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

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

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

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

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

### Table 8.1 Sources

#### Total Operable Units and Net Summer Capacity of Operable Units

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

1983 forward: U.S. Energy Information Administration (EIA), Form EIA-860, “Annual Electric Generator Report,” Form EIA-860M, “Monthly Update to the Annual Electric Generator Report,” and monthly updates as appropriate. For a list of currently operable units, see [http://www.eia.gov/nuclear/reactors/stats\\_table1.html](http://www.eia.gov/nuclear/reactors/stats_table1.html).

#### Nuclear Electricity Net Generation and Nuclear Share of Electricity Net Generation

See Table 7.2a.

#### Capacity Factor

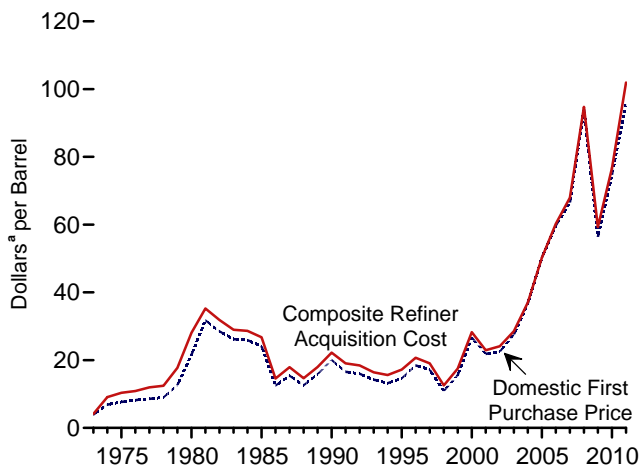
Calculated by EIA using the method described above in Note 2.

## 9. Energy Prices

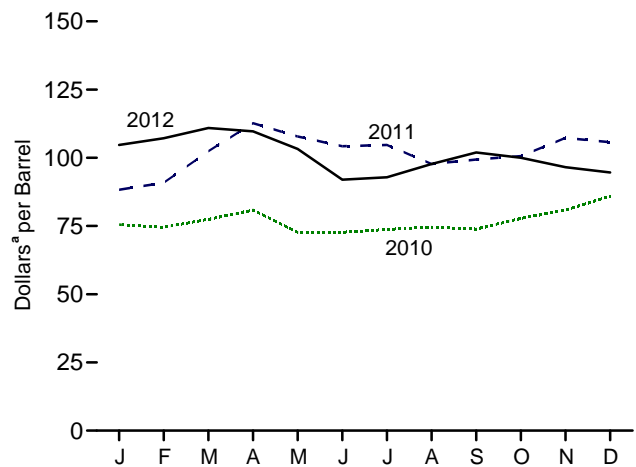
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**Figure 9.1 Petroleum Prices**

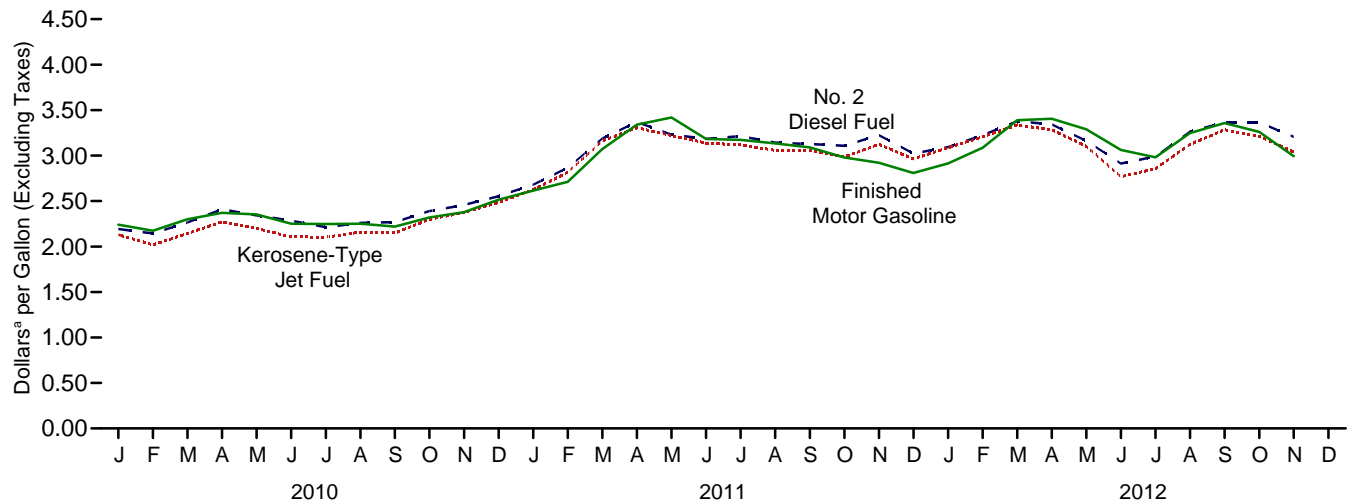
Crude Oil Prices, 1973-2011



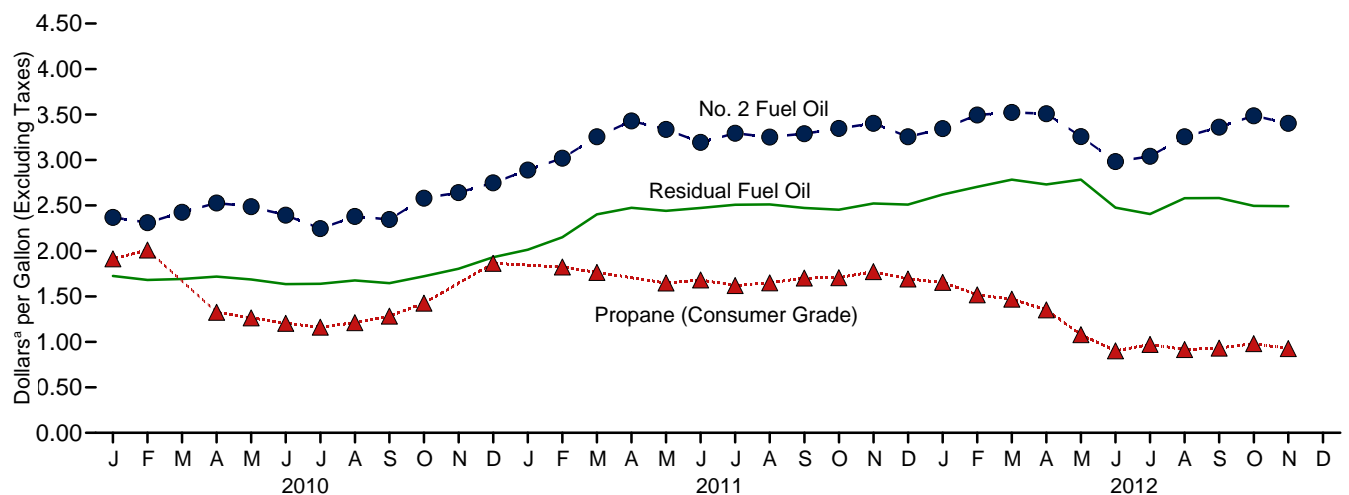
Composite Refiner Acquisition Cost, Monthly



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



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



<sup>a</sup>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<sup>a</sup> per Barrel)

	Domestic First Purchase Price <sup>c</sup>	F.O.B. Cost of Imports <sup>d</sup>	Landed Cost of Imports <sup>e</sup>	Refiner Acquisition Cost <sup>b</sup>		
				Domestic	Imported	Composite
1973 Average .....	3.89	<sup>f</sup> 5.21	<sup>f</sup> 6.41	<sup>E</sup> 4.17	<sup>E</sup> 4.08	<sup>E</sup> 4.15
1975 Average .....	7.67	11.18	12.70	8.39	13.93	10.38
1980 Average .....	21.59	32.37	33.67	24.23	33.89	28.07
1985 Average .....	24.09	25.84	26.67	26.66	26.99	26.75
1990 Average .....	20.03	20.37	21.13	22.59	21.76	22.22
1995 Average .....	14.62	15.69	16.78	17.33	17.14	17.23
1996 Average .....	18.46	19.32	20.31	20.77	20.64	20.71
1997 Average .....	17.23	16.94	18.11	19.61	18.53	19.04
1998 Average .....	10.87	10.76	11.84	13.18	12.04	12.52
1999 Average .....	15.56	16.47	17.23	17.90	17.26	17.51
2000 Average .....	26.72	26.27	27.53	29.11	27.70	28.26
2001 Average .....	21.84	20.46	21.82	24.33	22.00	22.95
2002 Average .....	22.51	22.63	23.91	24.65	23.71	24.10
2003 Average .....	27.56	25.86	27.69	29.82	27.71	28.53
2004 Average .....	36.77	33.75	36.07	38.97	35.90	36.98
2005 Average .....	50.28	47.60	49.29	52.94	48.86	50.24
2006 Average .....	59.69	57.03	59.11	62.62	59.02	60.24
2007 Average .....	66.52	66.36	67.97	69.65	67.04	67.94
2008 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
<b>2010</b> January .....	72.89	72.96	74.78	76.04	75.07	75.48
February .....	72.74	71.50	75.01	75.91	73.73	74.58
March .....	75.77	75.41	77.65	78.52	76.77	77.43
April .....	78.80	78.27	79.34	82.12	80.03	80.83
May .....	70.90	69.21	72.00	75.23	71.15	72.66
June .....	70.77	70.17	72.62	73.93	71.91	72.66
July .....	71.37	71.01	73.43	74.54	73.25	73.73
August .....	72.07	71.27	73.63	76.21	73.50	74.58
September .....	71.23	71.72	74.25	74.87	73.20	73.85
October .....	76.02	75.52	77.26	78.88	77.02	77.77
November .....	79.20	79.56	81.56	82.05	80.07	80.85
December .....	83.98	83.95	86.64	86.48	85.59	85.95
<b>Average .....</b>	<b>74.71</b>	<b>74.20</b>	<b>76.49</b>	<b>77.96</b>	<b>75.88</b>	<b>76.69</b>
<b>2011</b> January .....	85.66	86.80	89.61	88.73	87.99	88.28
February .....	86.69	92.07	94.25	89.50	91.72	90.85
March .....	99.19	104.19	104.80	102.34	102.48	102.43
April .....	108.80	111.52	112.54	111.96	113.08	112.65
May .....	102.46	105.92	108.28	107.55	107.99	107.82
June .....	97.30	104.35	105.19	102.53	105.36	104.23
July .....	97.82	105.60	106.19	102.67	105.94	104.68
August .....	89.00	97.72	99.27	95.89	99.01	97.70
September .....	90.22	100.84	101.03	96.89	101.05	99.39
October .....	92.28	101.92	102.55	98.34	102.00	100.57
November .....	100.18	105.79	105.98	106.69	107.67	107.28
December .....	98.71	103.09	105.62	104.51	106.52	105.69
<b>Average .....</b>	<b>95.73</b>	<b>101.68</b>	<b>102.99</b>	<b>100.74</b>	<b>102.70</b>	<b>101.93</b>
<b>2012</b> January .....	98.99	103.96	105.27	103.97	105.25	104.70
February .....	102.05	108.56	109.24	105.93	108.08	107.18
March .....	105.42	110.72	110.68	110.80	111.00	110.92
April .....	103.62	107.17	107.58	111.26	108.53	109.70
May .....	95.57	100.79	101.56	103.17	103.26	103.23
June .....	83.59	87.89	91.90	91.66	92.18	91.96
July .....	86.10	92.50	93.66	92.64	92.98	92.83
August .....	92.53	99.63	98.70	98.58	97.07	97.71
September .....	95.98	<sup>R</sup> 101.08	<sup>R</sup> 101.31	102.17	101.82	101.97
October .....	<sup>R</sup> 92.25	<sup>R</sup> 98.22	<sup>R</sup> 99.95	99.07	100.92	100.02
November .....	<sup>R</sup> 89.65	<sup>R</sup> 93.48	<sup>R</sup> 95.27	<sup>R</sup> 95.21	<sup>R</sup> 97.74	<sup>R</sup> 96.56
December .....	NA	NA	NA	<sup>E</sup> 95.63	<sup>E</sup> 93.89	<sup>E</sup> 94.59

<sup>a</sup> Prices are not adjusted for inflation. See "Nominal Dollars" in Glossary.

<sup>b</sup> See Note 1, "Crude Oil Refinery Acquisition Costs," at end of section.

<sup>c</sup> See Note 2, "Crude Oil Domestic First Purchase Prices," at end of section.

<sup>d</sup> See Note 3, "Crude Oil F.O.B. Costs," at end of section.

<sup>e</sup> See Note 4, "Crude Oil Landed Costs," at end of section.

<sup>f</sup> Based on October, November, and December data only.

<sup>R</sup>=Revised. <sup>NA</sup>=Not available. <sup>E</sup>=Estimate.

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

current three months are preliminary. • F.O.B. and landed costs through 1980 reflect the period of reporting; prices since then reflect the period of loading.

• Annual averages are the averages of the monthly prices, weighted by volume.

• Geographic coverage is the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, and all U.S. Territories and Possessions.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#prices> for all available data beginning in 1973.

Sources: See end of section.

**Table 9.2 F.O.B. Costs of Crude Oil Imports From Selected Countries**  
(Dollars<sup>a</sup> per Barrel)

	Selected Countries							Persian Gulf Nations <sup>b</sup>	Total OPEC <sup>c</sup>	Total Non-OPEC <sup>c</sup>
	Angola	Colombia	Mexico	Nigeria	Saudi Arabia	United Kingdom	Venezuela			
1973 Average <sup>d</sup> .....	W	W	–	7.81	3.25	–	5.39	3.68	5.43	4.80
1975 Average .....	10.97	–	11.44	11.82	10.87	–	11.04	10.88	11.34	10.62
1980 Average .....	33.45	W	31.06	35.93	28.17	34.36	24.81	28.92	32.21	32.85
1985 Average .....	26.30	–	25.33	28.04	22.04	27.64	23.64	23.31	25.67	25.96
1990 Average .....	20.23	20.75	19.26	22.46	20.36	23.43	19.55	18.54	20.40	20.32
1995 Average .....	16.58	16.73	15.64	17.40	W	16.94	13.86	W	15.36	16.02
1996 Average .....	20.71	21.33	19.14	21.27	19.28	19.43	17.73	19.22	18.94	19.65
1997 Average .....	18.81	18.85	16.72	19.43	15.16	18.59	15.33	15.24	16.26	17.51
1998 Average .....	12.11	12.56	10.49	12.97	8.87	12.52	9.31	9.09	10.20	11.21
1999 Average .....	17.46	17.20	15.89	17.32	17.65	19.14	14.33	17.15	15.90	16.84
2000 Average .....	27.90	29.04	25.39	28.70	24.62	27.21	24.45	24.72	25.56	26.77
2001 Average .....	23.25	24.25	18.89	24.85	18.98	23.30	18.01	18.89	19.73	21.04
2002 Average .....	24.09	24.64	21.60	25.38	23.92	24.50	20.13	23.38	22.93	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	59.53	58.53	57.16
<b>2010</b> January .....	74.62	70.08	72.96	75.91	W	–	70.86	W	73.42	72.49
February .....	W	68.70	69.16	76.07	W	–	68.83	71.89	71.77	71.14
March .....	78.11	73.90	72.76	81.27	W	–	70.88	76.10	75.83	74.91
April .....	84.40	74.85	75.57	85.94	W	W	72.59	80.01	78.88	77.73
May .....	71.86	64.32	68.30	74.28	W	–	66.37	73.60	70.45	68.24
June .....	72.90	67.19	67.64	75.61	W	–	66.19	72.49	71.39	69.20
July .....	74.77	70.00	68.53	79.63	W	–	67.25	71.76	72.16	69.87
August .....	77.11	69.88	69.53	75.70	W	–	68.27	72.79	72.38	70.35
September .....	W	69.71	69.90	80.93	74.06	–	67.59	73.34	73.24	70.24
October .....	W	76.06	73.93	84.59	W	–	72.10	78.28	77.55	73.80
November .....	85.99	78.92	77.14	86.61	W	–	75.03	80.99	80.95	78.49
December .....	W	81.62	81.75	93.68	W	–	77.78	W	85.72	82.40
<b>Average .....</b>	<b>78.18</b>	<b>72.56</b>	<b>72.46</b>	<b>80.83</b>	<b>76.44</b>	<b>W</b>	<b>70.30</b>	<b>75.65</b>	<b>75.23</b>	<b>73.24</b>
<b>2011</b> January .....	95.97	83.36	84.36	99.86	W	–	81.25	W	89.74	83.92
February .....	W	87.23	88.77	109.07	W	–	85.11	97.25	96.01	88.67
March .....	113.63	101.29	102.55	117.98	W	–	97.56	107.36	106.19	102.44
April .....	122.52	114.17	109.90	126.05	W	–	106.56	114.82	115.15	107.71
May .....	113.33	106.15	105.13	117.66	W	–	101.60	110.29	108.50	103.81
June .....	115.13	102.78	103.43	119.13	W	–	100.59	106.39	108.22	100.42
July .....	114.80	100.30	104.84	119.68	W	–	100.62	109.06	110.09	100.90
August .....	W	95.01	98.21	115.61	W	–	97.17	106.98	104.19	93.57
September .....	112.49	97.45	100.28	115.43	109.99	–	95.72	108.41	105.82	97.08
October .....	109.74	102.37	101.48	114.46	W	–	96.93	105.62	105.20	98.65
November .....	112.49	106.97	107.94	115.35	W	–	105.44	106.51	108.16	104.17
December .....	111.26	103.10	105.96	W	W	–	105.75	104.48	106.42	100.80
<b>Average .....</b>	<b>111.82</b>	<b>100.19</b>	<b>100.92</b>	<b>115.35</b>	<b>107.08</b>	<b>–</b>	<b>97.23</b>	<b>106.49</b>	<b>105.34</b>	<b>98.51</b>
<b>2012</b> 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	104.75
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	88.45
August .....	W	106.16	101.12	114.62	W	–	99.94	104.87	104.18	95.13
September .....	<sup>R</sup> 112.75	108.59	102.49	<sup>R</sup> 111.74	<sup>R</sup> 107.14	–	101.00	<sup>R</sup> 105.58	<sup>R</sup> 105.05	<sup>R</sup> 97.60
October .....	W	<sup>R</sup> 105.77	<sup>R</sup> 98.98	–	W	–	<sup>R</sup> 98.10	W	<sup>R</sup> 101.40	<sup>R</sup> 95.74
November .....	W	103.55	93.41	–	W	–	93.08	101.91	96.11	91.73

<sup>a</sup> Prices are not adjusted for inflation. See "Nominal Dollars" in Glossary.  
<sup>b</sup> Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, United Arab Emirates, and the Neutral Zone (between Kuwait and Saudi Arabia).  
<sup>c</sup> 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."  
<sup>d</sup> Based on October, November, and December data only.  
<sup>R</sup>=Revised. – =No data reported. W=Value withheld to avoid disclosure of individual company data.

Notes: • The Free on Board (F.O.B.) cost at the country of origin excludes all costs related to insurance and transportation. See "F.O.B." in Glossary, and Note 3, "Crude Oil F.O.B. Costs," at end of section. • Values for the current two months are preliminary. • Prices through 1980 reflect the period of reporting; prices since then reflect the period of loading. • Annual averages are averages of the monthly prices, including prices not published, weighted by volume. • Cargoes that are purchased on a "netback" basis, or under similar contractual arrangements whereby the actual purchase price is not established at the time the crude oil is acquired for importation into the United States, are not included in the published data until the actual prices have been determined and reported. • U.S. geographic coverage is the 50 States and the District of Columbia.  
Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#prices> for all available data beginning in 1973.  
Sources: See end of section.

**Table 9.3 Landed Costs of Crude Oil Imports From Selected Countries**  
(Dollars<sup>a</sup> per Barrel)

	Selected Countries								Persian Gulf Nations <sup>b</sup>	Total OPEC <sup>c</sup>	Total Non-OPEC <sup>c</sup>
	Angola	Canada	Colombia	Mexico	Nigeria	Saudi Arabia	United Kingdom	Venezuela			
1973 Average <sup>d</sup>	W	5.33	W	–	9.08	5.37	–	5.99	5.91	6.85	5.64
1975 Average	11.81	12.84	–	12.61	12.70	12.50	–	12.36	12.64	12.70	12.70
1980 Average	34.76	30.11	W	31.77	37.15	29.80	35.68	25.92	30.59	33.56	33.99
1985 Average	27.39	25.71	–	25.63	28.96	24.72	28.36	24.43	25.50	26.86	26.53
1990 Average	21.51	20.48	22.34	19.64	23.33	21.82	22.65	20.31	20.55	21.23	20.98
1995 Average	17.66	16.65	17.45	16.19	18.25	16.84	17.91	14.81	16.78	16.61	16.95
1996 Average	21.86	19.94	22.02	19.64	21.95	20.49	20.88	18.59	20.45	20.14	20.47
1997 Average	20.24	17.63	19.71	17.30	20.64	17.52	20.64	16.35	17.44	17.73	18.45
1998 Average	13.37	11.62	13.26	11.04	14.14	11.16	13.55	10.16	11.18	11.46	12.22
1999 Average	18.37	17.54	18.09	16.12	17.63	17.48	18.26	15.58	17.37	16.94	17.51
2000 Average	29.57	26.69	29.68	26.03	30.04	26.58	29.26	26.05	26.77	27.29	27.80
2001 Average	25.13	20.72	25.88	19.37	26.55	20.98	25.32	19.81	20.73	21.52	22.17
2002 Average	25.43	22.98	25.28	22.09	26.45	24.77	26.35	21.93	24.13	23.83	23.97
2003 Average	30.14	26.76	30.55	25.48	31.07	27.50	30.62	25.70	27.54	27.70	27.68
2004 Average	39.62	34.51	39.03	32.25	40.95	37.11	39.28	33.79	36.53	36.84	35.29
2005 Average	54.31	44.73	53.42	43.47	57.55	50.31	55.28	47.87	49.68	51.36	47.31
2006 Average	64.85	53.90	62.13	53.76	68.26	59.19	67.44	57.37	58.92	61.21	57.14
2007 Average	71.27	60.38	70.91	62.31	78.01	70.78	72.47	66.13	69.83	71.14	63.96
2008 Average	98.18	90.00	93.43	85.97	104.83	94.75	96.95	90.76	93.59	95.49	90.59
2009 Average	61.32	57.60	58.50	57.35	68.01	62.14	63.87	57.78	62.15	61.90	58.58
<b>2010</b> January	77.32	72.59	74.26	73.23	78.58	76.63	77.97	72.63	76.34	75.91	73.59
February	79.06	73.37	73.11	69.48	79.25	77.29	77.84	70.91	77.27	76.24	73.33
March	80.93	76.82	76.08	73.07	83.68	77.57	79.07	72.92	77.55	78.40	76.84
April	82.26	78.36	76.33	75.03	86.80	79.53	80.25	75.21	79.15	80.07	78.61
May	74.80	69.16	66.52	68.71	76.90	77.52	W	68.53	76.20	73.95	70.20
June	76.54	69.14	69.64	68.02	78.14	76.01	77.67	68.30	75.14	74.55	70.92
July	77.20	70.25	71.61	69.31	81.07	75.46	76.60	69.59	74.75	74.81	72.03
August	78.40	70.10	71.49	69.95	79.15	76.06	79.52	70.14	75.81	75.42	71.81
September	80.49	68.66	70.85	70.47	81.58	77.15	W	68.88	76.64	76.39	71.89
October	85.33	69.23	76.72	74.73	86.01	81.81	W	74.29	81.24	80.52	74.15
November	86.98	75.40	80.24	77.55	89.15	84.62	87.10	77.53	84.09	84.38	78.96
December	91.77	80.76	82.76	82.37	95.44	90.45	92.50	80.79	89.99	89.25	83.97
<b>Average</b>	<b>80.63</b>	<b>72.80</b>	<b>74.25</b>	<b>72.86</b>	<b>83.15</b>	<b>79.25</b>	<b>80.12</b>	<b>72.43</b>	<b>78.58</b>	<b>78.27</b>	<b>74.67</b>
<b>2011</b> January	99.58	81.43	85.88	85.00	101.24	96.59	W	84.70	96.57	94.03	85.02
February	110.07	80.65	90.14	89.08	108.94	103.20	W	89.88	101.81	99.96	89.03
March	114.40	89.32	105.74	103.03	117.17	110.12	118.42	101.22	109.56	109.23	101.20
April	124.01	99.26	112.47	110.55	126.47	116.13	124.67	107.95	115.18	116.64	108.91
May	116.76	98.29	109.70	105.62	119.95	112.19	W	104.04	111.48	111.90	105.06
June	116.73	92.36	104.31	103.71	120.81	110.00	W	102.32	108.97	109.87	100.83
July	117.98	91.76	101.35	105.38	121.80	111.06	W	103.04	110.19	111.58	100.38
August	113.36	84.05	95.08	98.78	115.83	109.38	W	99.54	108.26	106.24	93.81
September	112.63	85.19	99.17	99.90	117.19	109.91	W	99.10	108.82	107.67	95.59
October	114.82	88.21	104.14	101.97	116.09	108.90	W	99.89	108.07	107.98	97.91
November	115.14	93.80	108.52	108.46	117.05	108.61	W	106.90	108.35	110.09	102.90
December	115.65	95.74	106.64	106.31	117.10	108.27	W	108.02	107.53	109.63	102.52
<b>Average</b>	<b>114.05</b>	<b>90.03</b>	<b>102.53</b>	<b>101.22</b>	<b>116.40</b>	<b>108.81</b>	<b>118.35</b>	<b>100.14</b>	<b>108.06</b>	<b>107.85</b>	<b>98.75</b>
<b>2012</b> January	115.13	93.43	110.54	108.38	115.41	110.49	W	106.23	110.61	110.32	101.31
February	121.40	92.14	115.19	111.24	126.42	114.73	W	111.72	114.22	115.76	103.02
March	128.35	88.73	119.93	115.20	130.46	117.55	–	114.29	117.14	118.26	103.98
April	120.60	85.55	113.78	111.55	124.06	115.65	W	110.58	115.98	116.21	99.94
May	114.94	82.78	105.04	103.79	113.89	108.39	W	103.02	108.52	108.26	95.20
June	103.10	78.11	93.85	90.89	103.24	99.38	–	89.41	99.24	97.29	87.15
July	106.95	75.62	97.70	95.24	106.95	99.00	W	94.91	99.02	99.48	88.10
August	113.27	80.68	105.94	101.98	114.51	104.74	–	101.38	104.40	105.29	92.29
September	<sup>R</sup> 116.51	<sup>R</sup> 85.47	109.19	103.16	<sup>R</sup> 114.95	<sup>R</sup> 107.06	–	102.97	<sup>R</sup> 106.26	<sup>R</sup> 107.02	<sup>R</sup> 95.82
October	<sup>R</sup> 115.17	<sup>R</sup> 87.99	<sup>R</sup> 106.48	<sup>R</sup> 99.34	<sup>R</sup> 117.04	<sup>R</sup> 106.35	W	<sup>R</sup> 99.31	<sup>R</sup> 106.27	<sup>R</sup> 105.99	<sup>R</sup> 95.28
November	W	84.63	104.47	94.28	113.09	106.28	–	94.61	104.80	100.75	91.90

<sup>a</sup> Prices are not adjusted for inflation. See "Nominal Dollars" in Glossary.

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

<sup>c</sup> 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."

<sup>d</sup> Based on October, November, and December data only.

<sup>R</sup>=Revised. – =No data reported. W=Value withheld to avoid disclosure of individual company data.

Notes: • See "Landed Costs" in Glossary, and Note 4, "Crude Oil Landed

Costs," at end of section. • Values for the current two months are preliminary.

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

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#prices> for all available data beginning in 1973.

Sources: • **October 1973–September 1977:** Federal Energy Administration, Form FEA-F701-M-0, "Transfer Pricing Report." • **October 1977–December 1977:** U.S. Energy Information Administration (EIA), Form FEA-F701-M-0, "Transfer Pricing Report." • **1978–2009:** EIA, *Petroleum Marketing Annual 2009*, Table 22. • **2010 forward:** EIA, *Petroleum Marketing Monthly*, February 2013, Table 22.

**Table 9.4 Motor Gasoline Retail Prices, U.S. City Average**  
(Dollars<sup>a</sup> per Gallon, Including Taxes)

	Leaded Regular	Unleaded Regular	Unleaded Premium <sup>b</sup>	All Types <sup>c</sup>
1973 Average .....	0.388	NA	NA	NA
1975 Average .....	0.567	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
1995 Average .....	NA	1.147	1.336	1.205
1996 Average .....	NA	1.231	1.413	1.288
1997 Average .....	NA	1.234	1.416	1.291
1998 Average .....	NA	1.059	1.250	1.115
1999 Average .....	NA	1.165	1.357	1.221
2000 Average .....	NA	1.510	1.693	1.563
2001 Average .....	NA	1.461	1.657	1.531
2002 Average .....	NA	1.358	1.556	1.441
2003 Average .....	NA	1.591	1.777	1.638
2004 Average .....	NA	1.880	2.068	1.923
2005 Average .....	NA	2.295	2.491	2.338
2006 Average .....	NA	2.589	2.805	2.635
2007 Average .....	NA	2.801	3.033	2.849
2008 Average .....	NA	3.266	3.519	3.317
2009 Average .....	NA	2.350	2.607	2.401
<b>2010</b> January .....	NA	2.731	2.987	2.779
February .....	NA	2.659	2.922	2.709
March .....	NA	2.780	3.035	2.829
April .....	NA	2.858	3.113	2.906
May .....	NA	2.869	3.124	2.915
June .....	NA	2.736	3.000	2.783
July .....	NA	2.736	2.997	2.783
August .....	NA	2.745	3.015	2.795
September .....	NA	2.704	2.968	2.754
October .....	NA	2.795	3.055	2.843
November .....	NA	2.852	3.109	2.899
December .....	NA	2.985	3.234	3.031
<b>Average .....</b>	<b>NA</b>	<b>2.788</b>	<b>3.047</b>	<b>2.836</b>
<b>2011</b> January .....	NA	3.091	3.345	3.139
February .....	NA	3.167	3.424	3.215
March .....	NA	3.546	3.807	3.594
April .....	NA	3.816	4.074	3.863
May .....	NA	3.933	4.192	3.982
June .....	NA	3.702	3.972	3.753
July .....	NA	3.654	3.915	3.703
August .....	NA	3.630	3.893	3.680
September .....	NA	3.612	3.887	3.664
October .....	NA	3.468	3.745	3.521
November .....	NA	3.423	3.700	3.475
December .....	NA	3.278	3.553	3.329
<b>Average .....</b>	<b>NA</b>	<b>3.527</b>	<b>3.792</b>	<b>3.577</b>
<b>2012</b> January .....	NA	3.399	3.663	3.447
February .....	NA	3.572	3.840	3.622
March .....	NA	3.868	4.138	3.918
April .....	NA	3.927	4.194	3.976
May .....	NA	3.792	4.062	3.839
June .....	NA	3.552	3.825	3.602
July .....	NA	3.451	3.726	3.502
August .....	NA	3.707	3.991	3.759
September .....	NA	3.856	4.140	3.908
October .....	NA	3.786	4.079	3.839
November .....	NA	3.488	3.782	3.542
December .....	NA	3.331	3.626	3.386
<b>Average .....</b>	<b>NA</b>	<b>3.644</b>	<b>3.922</b>	<b>3.695</b>
<b>2013</b> January .....	NA	3.351	3.646	3.407

<sup>a</sup> Prices are not adjusted for inflation. See "Nominal Dollars" in Glossary.

<sup>b</sup> The 1981 average (available in Web file) is based on September through December data only.

<sup>c</sup> Also includes types of motor gasoline not shown separately.

NA=Not available.

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

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

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#prices> for all available data beginning in 1973.

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

**Table 9.5 Refiner Prices of Residual Fuel Oil**  
(Dollars<sup>a</sup> 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
<b>1978 Average</b> .....	0.293	0.314	0.245	0.275	0.263	0.298
<b>1980 Average</b> .....	0.608	0.675	0.479	0.523	0.528	0.607
<b>1985 Average</b> .....	0.610	0.644	0.560	0.582	0.577	0.610
<b>1990 Average</b> .....	0.472	0.505	0.372	0.400	0.413	0.444
<b>1995 Average</b> .....	0.383	0.436	0.338	0.377	0.363	0.392
<b>1996 Average</b> .....	0.456	0.526	0.389	0.433	0.420	0.455
<b>1997 Average</b> .....	0.415	0.488	0.366	0.403	0.387	0.423
<b>1998 Average</b> .....	0.299	0.354	0.269	0.287	0.280	0.305
<b>1999 Average</b> .....	0.382	0.405	0.329	0.362	0.354	0.374
<b>2000 Average</b> .....	0.627	0.708	0.512	0.566	0.566	0.602
<b>2001 Average</b> .....	0.523	0.642	0.428	0.492	0.476	0.531
<b>2002 Average</b> .....	0.546	0.640	0.508	0.544	0.530	0.569
<b>2003 Average</b> .....	0.728	0.804	0.588	0.651	0.661	0.698
<b>2004 Average</b> .....	0.764	0.835	0.601	0.692	0.681	0.739
<b>2005 Average</b> .....	1.115	1.168	0.842	0.974	0.971	1.048
<b>2006 Average</b> .....	1.202	1.342	1.085	1.173	1.136	1.218
<b>2007 Average</b> .....	1.406	1.436	1.314	1.350	1.350	1.374
<b>2008 Average</b> .....	1.918	2.144	1.843	1.889	1.866	1.964
<b>2009 Average</b> .....	1.337	1.413	1.344	1.306	1.342	1.341
<b>2010</b> January .....	1.767	1.852	1.705	1.660	1.721	1.725
February .....	1.725	1.862	1.650	1.574	1.666	1.681
March .....	1.739	1.862	1.700	1.609	1.711	1.692
April .....	1.827	1.887	1.725	1.655	1.748	1.718
May .....	1.675	1.898	1.675	1.601	1.675	1.686
June .....	1.629	1.874	1.604	1.555	1.612	1.636
July .....	1.686	1.858	1.604	1.536	1.629	1.639
August .....	1.705	1.895	1.625	1.571	1.642	1.676
September .....	1.716	1.883	1.612	1.558	1.632	1.645
October .....	1.793	1.913	1.688	1.637	1.712	1.721
November .....	1.865	2.025	1.741	1.701	1.768	1.804
December .....	2.036	2.215	1.814	1.784	1.865	1.931
<b>Average</b> .....	<b>1.756</b>	<b>1.920</b>	<b>1.679</b>	<b>1.619</b>	<b>1.697</b>	<b>1.713</b>
<b>2011</b> January .....	NA	2.302	1.896	1.870	1.918	2.013
February .....	2.100	2.451	2.079	2.019	2.086	2.150
March .....	2.344	2.654	2.307	2.245	2.321	2.403
April .....	2.555	2.741	2.427	2.370	2.448	2.475
May .....	2.463	2.786	2.374	2.325	2.392	2.440
June .....	2.467	2.905	2.377	2.312	2.402	2.473
July .....	2.547	2.877	2.430	2.362	2.474	2.508
August .....	2.394	2.896	2.392	2.342	2.392	2.512
September .....	2.368	2.882	2.370	2.318	2.369	2.473
October .....	2.512	2.891	2.375	2.276	2.406	2.454
November .....	2.566	2.853	2.424	2.368	2.459	2.521
December .....	2.473	2.891	2.335	2.348	2.371	2.509
<b>Average</b> .....	<b>2.389</b>	<b>2.736</b>	<b>2.316</b>	<b>2.257</b>	<b>2.336</b>	<b>2.401</b>
<b>2012</b> 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	2.290	2.346	2.305	2.492

<sup>a</sup> Prices are not adjusted for inflation. See "Nominal Dollars" in Glossary.  
NA=Not available.

Notes: • Sales for resale are those made to purchasers other than ultimate consumers. Sales to end users are those made directly to ultimate consumers, including bulk consumers (such as agriculture, industry, and electric utilities) and commercial consumers. • Values for the current month are preliminary. • Prices prior to 1983 are 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> for all available data beginning in 1978.

Sources: • **1978-2009:** EIA, *Petroleum Marketing Annual 2009*, Table 16.  
• **2010 forward:** EIA, *Petroleum Marketing Monthly*, February 2013, Table 16.

**Table 9.6 Refiner Prices of Petroleum Products for Resale**  
(Dollars<sup>a</sup> per Gallon, Excluding Taxes)

	Finished Motor Gasoline <sup>b</sup>	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	0.941	1.128	0.868	0.864	0.803	0.801	0.415
1985 Average	0.835	1.130	0.794	0.874	0.776	0.772	0.398
1990 Average	0.786	1.063	0.773	0.839	0.697	0.694	0.386
1995 Average	0.626	0.975	0.539	0.580	0.511	0.538	0.344
1996 Average	0.713	1.055	0.646	0.714	0.639	0.659	0.461
1997 Average	0.700	1.065	0.613	0.653	0.590	0.606	0.416
1998 Average	0.526	0.912	0.450	0.465	0.422	0.444	0.288
1999 Average	0.645	1.007	0.533	0.550	0.493	0.546	0.342
2000 Average	0.963	1.330	0.880	0.969	0.886	0.898	0.595
2001 Average	0.886	1.256	0.763	0.821	0.756	0.784	0.540
2002 Average	0.828	1.146	0.716	0.752	0.694	0.724	0.431
2003 Average	1.002	1.288	0.871	0.955	0.881	0.883	0.607
2004 Average	1.288	1.627	1.208	1.271	1.125	1.187	0.751
2005 Average	1.670	2.076	1.723	1.757	1.623	1.737	0.933
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	0.921
<b>2010</b> January	2.097	2.759	2.121	2.282	2.075	2.078	1.332
February	2.033	2.662	1.999	2.216	1.986	2.025	1.324
March	2.197	2.906	2.129	2.219	2.100	2.163	1.179
April	2.265	2.999	2.247	2.281	2.214	2.312	1.144
May	2.152	2.945	2.186	2.110	2.129	2.177	1.098
June	2.113	2.835	2.094	2.103	2.037	2.120	1.049
July	2.113	2.891	2.100	2.046	2.001	2.098	1.012
August	2.095	2.842	2.138	2.125	2.041	2.161	1.084
September	2.088	2.805	2.131	2.163	2.093	2.190	1.151
October	2.198	2.890	2.263	2.384	2.221	2.325	1.253
November	2.243	2.868	2.342	NA	2.308	2.392	1.277
December	2.383	3.024	2.459	2.744	2.435	2.486	1.322
<b>Average</b>	<b>2.165</b>	<b>2.874</b>	<b>2.185</b>	<b>2.299</b>	<b>2.147</b>	<b>2.214</b>	<b>1.212</b>
<b>2011</b> January	2.472	3.161	2.585	2.804	2.585	2.621	1.380
February	2.584	3.248	2.783	2.974	2.737	2.820	1.401
March	2.934	3.607	3.095	3.196	2.996	3.134	1.403
April	3.218	4.035	3.259	3.296	3.167	3.296	1.433
May	3.174	4.096	3.188	W	3.039	3.116	1.515
June	2.970	3.847	3.101	3.054	2.956	3.079	1.503
July	3.058	4.011	3.090	3.158	3.024	3.135	1.513
August	2.949	3.899	3.040	3.089	2.927	3.032	1.522
September	2.896	3.878	3.025	3.073	2.927	3.035	1.557
October	2.805	3.616	2.962	3.096	2.915	3.035	1.511
November	2.701	3.494	3.089	3.258	3.050	3.157	1.498
December	2.614	3.424	2.951	3.006	2.928	2.927	1.444
<b>Average</b>	<b>2.867</b>	<b>3.739</b>	<b>3.014</b>	<b>3.065</b>	<b>2.907</b>	<b>3.034</b>	<b>1.467</b>
<b>2012</b> 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	0.950
June	2.757	3.883	2.747	2.697	2.635	2.741	0.762
July	2.806	3.877	2.850	2.936	2.774	2.907	0.809
August	3.087	4.124	3.129	3.195	2.988	3.206	0.875
September	3.163	4.269	3.245	3.236	3.128	3.278	0.910
October	2.941	4.002	3.182	3.250	<sup>R</sup> 3.155	3.265	0.979
November	2.712	3.529	3.015	3.221	3.038	3.117	0.955

<sup>a</sup> Prices are not adjusted for inflation. See "Nominal Dollars" in Glossary.

<sup>b</sup> 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 for resale are those made to purchasers other than ultimate consumers. Sales to end users are shown in Table 9.7; they are sales made directly to ultimate consumers, including bulk consumers (such as agriculture, industry, and electric utilities) and residential and commercial consumers. • Values

for the current month are preliminary. • Prices prior to 1983 are U.S. Energy Information Administration (EIA) estimates. See Note 6, "Historical Petroleum Prices," at end of section. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#prices> for all available data beginning in 1978.

Sources: • **1978-2009:** EIA, *Petroleum Marketing Annual 2009*, Table 4. • **2010 forward:** EIA, *Petroleum Marketing Monthly*, February 2013, Table 4.

**Table 9.7 Refiner Prices of Petroleum Products to End Users**  
(Dollars<sup>a</sup> per Gallon, Excluding Taxes)

	Finished Motor Gasoline <sup>b</sup>	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	0.868	0.902	0.788	0.818	0.482
1985 Average .....	0.912	1.201	0.796	1.030	0.849	0.789	0.717
1990 Average .....	0.883	1.120	0.766	0.923	0.734	0.725	0.745
1995 Average .....	0.765	1.005	0.540	0.589	0.562	0.560	0.492
1996 Average .....	0.847	1.116	0.651	0.740	0.673	0.681	0.605
1997 Average .....	0.839	1.128	0.613	0.745	0.636	0.642	0.552
1998 Average .....	0.673	0.975	0.452	0.501	0.482	0.494	0.405
1999 Average .....	0.781	1.059	0.543	0.605	0.558	0.584	0.458
2000 Average .....	1.106	1.306	0.899	1.123	0.927	0.935	0.603
2001 Average .....	1.032	1.323	0.775	1.045	0.829	0.842	0.506
2002 Average .....	0.947	1.288	0.721	0.990	0.737	0.762	0.419
2003 Average .....	1.156	1.493	0.872	1.224	0.933	0.944	0.577
2004 Average .....	1.435	1.819	1.207	1.160	1.173	1.243	0.839
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
<b>2010</b> January .....	2.240	2.914	2.129	2.986	2.369	2.192	1.913
February .....	2.173	2.855	2.018	2.974	2.310	2.144	2.009
March .....	2.301	3.103	2.144	2.978	2.425	2.265	NA
April .....	2.370	3.201	2.272	3.040	2.527	2.410	1.326
May .....	2.353	3.129	2.199	2.938	2.487	2.343	1.264
June .....	2.251	2.981	2.105	2.965	2.393	2.284	1.204
July .....	2.247	3.028	2.103	NA	2.246	2.212	1.162
August .....	2.250	2.967	2.158	2.772	2.379	2.260	1.211
September .....	2.219	2.893	2.148	2.898	2.346	2.269	1.283
October .....	2.319	3.000	2.298	3.058	2.580	2.389	1.425
November .....	2.378	3.095	2.374	3.130	2.641	2.457	NA
December .....	2.514	3.218	2.484	3.276	2.749	2.554	1.863
<b>Average .....</b>	<b>2.301</b>	<b>3.028</b>	<b>2.201</b>	<b>3.063</b>	<b>2.462</b>	<b>2.314</b>	<b>1.481</b>
<b>2011</b> January .....	2.615	3.323	2.623	3.358	2.889	2.681	NA
February .....	2.712	3.374	2.818	3.506	3.020	2.867	1.823
March .....	3.072	3.767	3.161	3.697	3.255	3.189	1.763
April .....	3.340	4.132	3.306	3.796	3.430	3.370	NA
May .....	3.419	4.091	3.220	3.894	3.337	3.231	1.648
June .....	3.184	3.913	3.138	3.802	3.193	3.183	1.681
July .....	3.172	4.027	3.118	3.812	3.294	3.214	1.620
August .....	3.134	3.920	3.057	3.851	3.251	3.143	1.650
September .....	3.090	3.915	3.059	3.873	3.288	3.127	1.702
October .....	2.980	3.697	2.987	3.823	3.346	3.108	1.706
November .....	2.922	3.620	3.124	3.892	3.403	3.225	1.773
December .....	2.808	W	2.963	3.824	3.255	3.024	1.691
<b>Average .....</b>	<b>3.050</b>	<b>3.803</b>	<b>3.054</b>	<b>3.616</b>	<b>3.193</b>	<b>3.117</b>	<b>1.709</b>
<b>2012</b> 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	0.902
July .....	2.981	W	2.856	3.612	3.041	2.989	0.972
August .....	3.248	4.091	3.123	3.575	3.256	3.265	0.916
September .....	3.357	4.262	3.283	3.771	3.361	3.367	0.932
October .....	<sup>R</sup> 3.261	4.064	3.211	3.864	<sup>R</sup> 3.486	3.364	0.980
November .....	2.993	3.561	3.040	3.854	3.403	3.206	0.926

<sup>a</sup> Prices are not adjusted for inflation. See "Nominal Dollars" in Glossary.

<sup>b</sup> See Note 5, "Motor Gasoline Prices," at end of section.

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

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

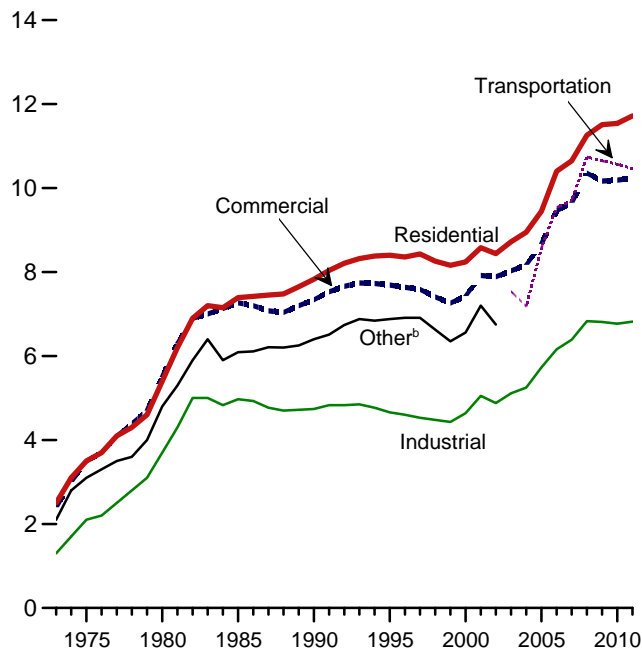
the current month are preliminary. • Prices prior to 1983 are U.S. Energy Information Administration (EIA) estimates. See Note 6, "Historical Petroleum Prices," at end of section. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#prices> for all available data beginning in 1978.

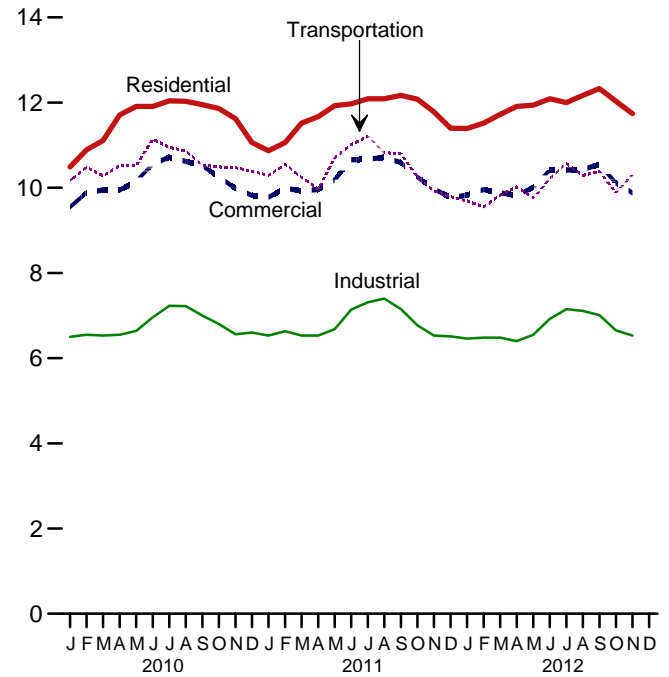
Sources: • 1978-2009: EIA, *Petroleum Marketing Annual 2009*, Table 2. • 2010 forward: EIA, *Petroleum Marketing Monthly*, February 2013, Table 2.

**Figure 9.2 Average Retail Prices of Electricity**  
(Cents<sup>a</sup> per Kilowatthour)

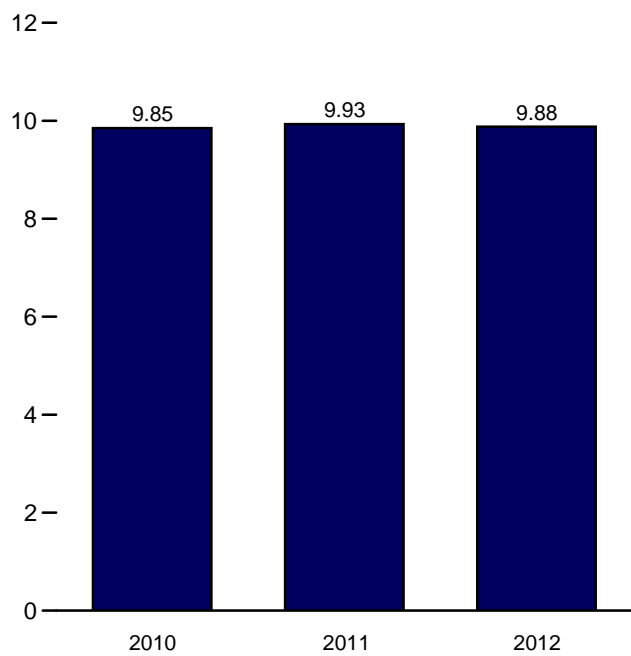
By Sector, 1973-2011



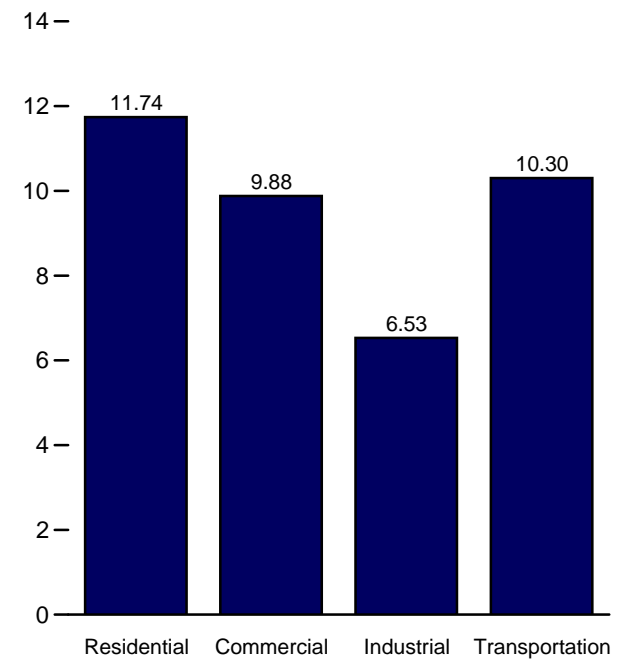
By Sector, Monthly



Total, January-November



By Sector, November 2012



<sup>a</sup>Prices are not adjusted for inflation. See "Nominal Price" in Glossary.  
<sup>b</sup>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<sup>a</sup> per Kilowatt-hour, Including Taxes)

	Residential	Commercial <sup>b</sup>	Industrial <sup>c</sup>	Transportation <sup>d</sup>	Other <sup>e</sup>	Total
<b>1973 Average</b> .....	2.50	2.40	1.30	NA	2.10	2.00
<b>1975 Average</b> .....	3.50	3.50	2.10	NA	3.10	2.90
<b>1980 Average</b> .....	5.40	5.50	3.70	NA	4.80	4.70
<b>1985 Average</b> .....	7.39	7.27	4.97	NA	6.09	6.44
<b>1990 Average</b> .....	7.83	7.34	4.74	NA	6.40	6.57
<b>1995 Average</b> .....	8.40	7.69	4.66	NA	6.88	6.89
<b>1996 Average</b> .....	8.36	7.64	4.60	NA	6.91	6.86
<b>1997 Average</b> .....	8.43	7.59	4.53	NA	6.91	6.85
<b>1998 Average</b> .....	8.26	7.41	4.48	NA	6.63	6.74
<b>1999 Average</b> .....	8.16	7.26	4.43	NA	6.35	6.64
<b>2000 Average</b> .....	8.24	7.43	4.64	NA	6.56	6.81
<b>2001 Average</b> .....	8.58	7.92	5.05	NA	7.20	7.29
<b>2002 Average</b> .....	8.44	7.89	4.88	NA	6.75	7.20
<b>2003 Average</b> .....	8.72	8.03	5.11	7.54	--	7.44
<b>2004 Average</b> .....	8.95	8.17	5.25	7.18	--	7.61
<b>2005 Average</b> .....	9.45	8.67	5.73	8.57	--	8.14
<b>2006 Average</b> .....	10.40	9.46	6.16	9.54	--	8.90
<b>2007 Average</b> .....	10.65	9.65	6.39	9.70	--	9.13
<b>2008 Average</b> .....	11.26	10.36	6.83	10.74	--	9.74
<b>2009 Average</b> .....	11.51	10.17	6.81	10.65	--	9.82
<b>2010</b> January .....	10.49	9.55	6.50	10.17	--	9.28
February .....	10.89	9.89	6.55	10.48	--	9.47
March .....	11.11	9.95	6.53	10.28	--	9.48
April .....	11.71	9.95	6.55	10.52	--	9.53
May .....	11.91	10.15	6.64	10.52	--	9.72
June .....	11.91	10.56	6.96	11.14	--	10.18
July .....	12.04	10.72	7.23	10.95	--	10.46
August .....	12.03	10.62	7.22	10.86	--	10.40
September .....	11.95	10.52	7.00	10.53	--	10.17
October .....	11.86	10.25	6.80	10.49	--	9.81
November .....	11.62	9.99	6.56	10.47	--	9.55
December .....	11.06	9.82	6.60	10.39	--	9.52
<b>Average</b> .....	<b>11.54</b>	<b>10.19</b>	<b>6.77</b>	<b>10.57</b>	--	<b>9.83</b>
<b>2011</b> January .....	10.87	9.78	6.53	10.29	--	9.48
February .....	11.06	9.99	6.63	10.55	--	9.56
March .....	11.52	9.93	6.53	10.24	--	9.55
April .....	11.67	9.96	6.53	9.97	--	9.54
May .....	11.93	10.19	6.68	10.70	--	9.78
June .....	11.97	10.66	7.14	11.01	--	10.26
July .....	12.09	10.67	7.31	11.21	--	10.47
August .....	12.09	10.72	7.40	10.82	--	10.49
September .....	12.17	10.59	7.15	10.80	--	10.29
October .....	12.08	10.25	6.77	10.25	--	9.83
November .....	11.78	9.98	6.53	9.93	--	9.58
December .....	11.40	9.77	6.51	9.79	--	9.53
<b>Average</b> .....	<b>11.72</b>	<b>10.23</b>	<b>6.82</b>	<b>10.46</b>	--	<b>9.90</b>
<b>2012</b> January .....	11.39	9.83	6.46	9.69	--	9.61
February .....	11.52	9.96	6.48	9.55	--	9.60
March .....	11.72	9.88	6.48	9.83	--	9.56
April .....	11.91	9.83	6.40	10.02	--	9.49
May .....	11.94	10.01	6.55	9.76	--	9.68
June .....	12.09	10.42	6.92	10.22	--	10.15
July .....	12.00	10.42	7.15	10.57	--	10.31
August .....	12.17	10.43	7.11	10.29	--	10.34
September .....	12.33	10.55	7.01	10.39	--	10.31
October .....	12.03	10.11	6.65	9.88	--	9.76
November .....	11.74	9.88	6.53	10.30	--	9.58
<b>11-Month Average</b> .....	<b>11.91</b>	<b>10.14</b>	<b>6.71</b>	<b>10.04</b>	--	<b>9.88</b>
<b>2011 11-Month Average</b> .....	<b>11.75</b>	<b>10.28</b>	<b>6.85</b>	<b>10.53</b>	--	<b>9.93</b>
<b>2010 11-Month Average</b> .....	<b>11.58</b>	<b>10.22</b>	<b>6.79</b>	<b>10.58</b>	--	<b>9.85</b>

<sup>a</sup> Prices are not adjusted for inflation. See "Nominal Price" in Glossary.

<sup>b</sup> Commercial sector. For 1973–2002, prices exclude public street and highway lighting, interdepartmental sales, and other sales to public authorities.

<sup>c</sup> Industrial sector. For 1973–2002, prices exclude agriculture and irrigation.

<sup>d</sup> Transportation sector, including railroads and railways.

<sup>e</sup> 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.

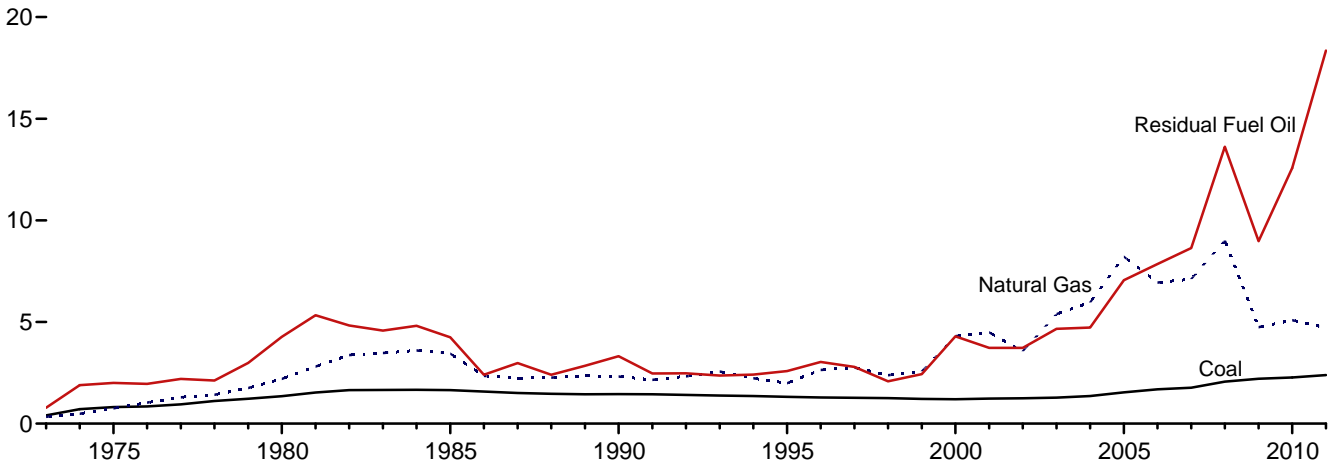
• See Note 7, "Electricity Retail Prices," at end of section for plant coverage, and for information on preliminary and final values. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#prices> for all available data beginning in 1973.

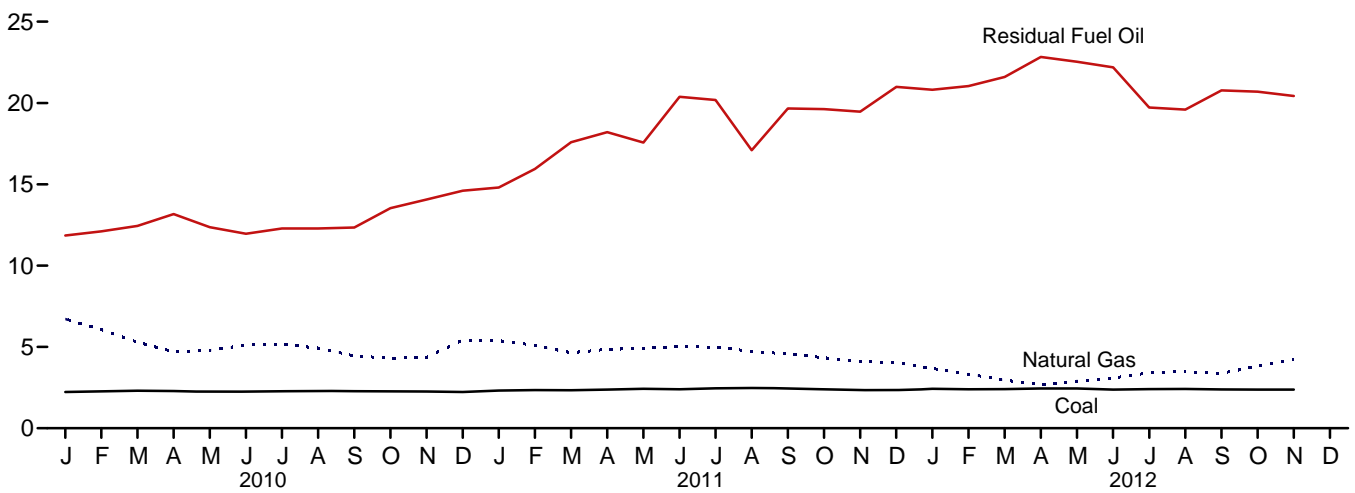
Sources: • **1973-September 1977:** Federal Power Commission, Form FPC-5, "Monthly Statement of Electric Operating Revenues and Income." • **October 1977-February 1980:** Federal Energy Regulatory Commission (FERC), Form FPC-5, "Monthly Statement of Electric Operating Revenues and Income." • **March 1980-1982:** FERC, Form FERC-5, "Electric Utility Company Monthly Statement." • **1983:** U.S. Energy Information Administration (EIA), Form EIA-826, "Electric Utility Company Monthly Statement." • **1984-2009:** EIA, Form EIA-861, "Annual Electric Utility Report." • **2010 forward:** EIA, *Electric Power Monthly*, January 2013, Table 5.3.

**Figure 9.3 Cost of Fossil-Fuel Receipts at Electric Generating Plants**  
(Dollars<sup>a</sup> per Million Btu, Including Taxes)

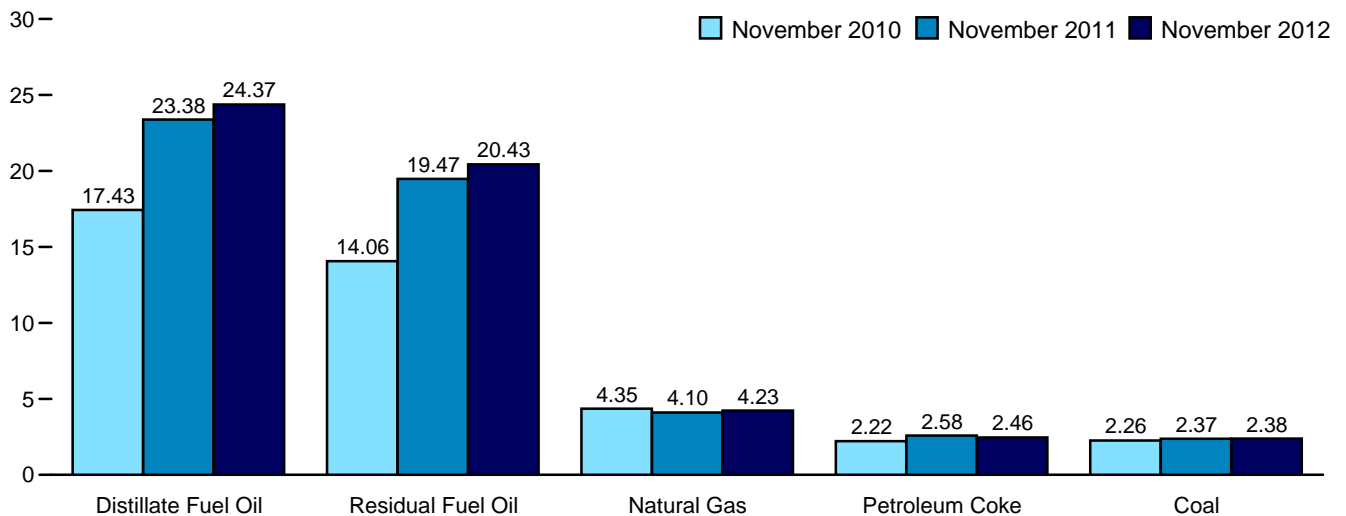
Costs, 1973-2011



Costs, Monthly



By Fuel Type



<sup>a</sup>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<sup>a</sup> per Million Btu, Including Taxes)

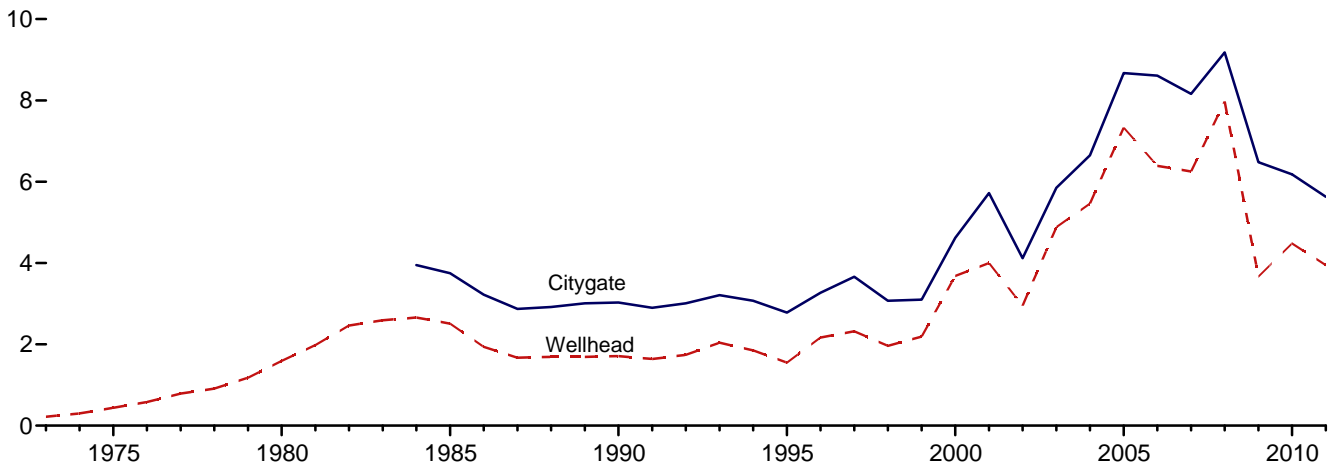
	Coal	Petroleum				Natural Gas <sup>e</sup>	All Fossil Fuels <sup>f</sup>
		Residual Fuel Oil <sup>b</sup>	Distillate Fuel Oil <sup>c</sup>	Petroleum Coke	Total <sup>d</sup>		
<b>1973 Average</b> .....	<b>0.41</b>	<b>0.79</b>	<b>NA</b>	<b>NA</b>	<b>0.80</b>	<b>0.34</b>	<b>0.48</b>
<b>1975 Average</b> .....	<b>.81</b>	<b>2.01</b>	<b>NA</b>	<b>NA</b>	<b>2.02</b>	<b>.75</b>	<b>1.04</b>
<b>1980 Average</b> .....	<b>1.35</b>	<b>4.27</b>	<b>NA</b>	<b>NA</b>	<b>4.35</b>	<b>2.20</b>	<b>1.93</b>
<b>1985 Average</b> .....	<b>1.65</b>	<b>4.24</b>	<b>NA</b>	<b>NA</b>	<b>4.32</b>	<b>3.44</b>	<b>2.09</b>
<b>1990 Average</b> .....	<b>1.45</b>	<b>3.32</b>	<b>5.38</b>	<b>.80</b>	<b>3.35</b>	<b>2.32</b>	<b>1.69</b>
<b>1995 Average</b> .....	<b>1.32</b>	<b>2.59</b>	<b>3.99</b>	<b>.65</b>	<b>2.57</b>	<b>1.98</b>	<b>1.45</b>
<b>1996 Average</b> .....	<b>1.29</b>	<b>3.03</b>	<b>4.87</b>	<b>.78</b>	<b>3.03</b>	<b>2.64</b>	<b>1.52</b>
<b>1997 Average</b> .....	<b>1.27</b>	<b>2.79</b>	<b>4.49</b>	<b>.91</b>	<b>2.73</b>	<b>2.76</b>	<b>1.52</b>
<b>1998 Average</b> .....	<b>1.25</b>	<b>2.08</b>	<b>3.30</b>	<b>.71</b>	<b>2.02</b>	<b>2.38</b>	<b>1.44</b>
<b>1999 Average</b> .....	<b>1.22</b>	<b>2.44</b>	<b>4.03</b>	<b>.65</b>	<b>2.36</b>	<b>2.57</b>	<b>1.44</b>
<b>2000 Average</b> .....	<b>1.20</b>	<b>4.29</b>	<b>6.65</b>	<b>.58</b>	<b>4.18</b>	<b>4.30</b>	<b>1.74</b>
<b>2001 Average</b> .....	<b>1.23</b>	<b>3.73</b>	<b>6.30</b>	<b>.78</b>	<b>3.69</b>	<b>4.49</b>	<b>1.73</b>
<b>2002 Average<sup>g</sup></b> .....	<b>1.25</b>	<b>3.73</b>	<b>5.34</b>	<b>.78</b>	<b>3.34</b>	<b>3.56</b>	<b>1.86</b>
<b>2003 Average</b> .....	<b>1.28</b>	<b>4.66</b>	<b>6.82</b>	<b>.72</b>	<b>4.33</b>	<b>5.39</b>	<b>2.28</b>
<b>2004 Average</b> .....	<b>1.36</b>	<b>4.73</b>	<b>8.02</b>	<b>.83</b>	<b>4.29</b>	<b>5.96</b>	<b>2.48</b>
<b>2005 Average</b> .....	<b>1.54</b>	<b>7.06</b>	<b>11.72</b>	<b>1.11</b>	<b>6.44</b>	<b>8.21</b>	<b>3.25</b>
<b>2006 Average</b> .....	<b>1.69</b>	<b>7.85</b>	<b>13.28</b>	<b>1.33</b>	<b>6.23</b>	<b>6.94</b>	<b>3.02</b>
<b>2007 Average</b> .....	<b>1.77</b>	<b>8.64</b>	<b>14.85</b>	<b>1.51</b>	<b>7.17</b>	<b>7.11</b>	<b>3.23</b>
<b>2008 Average</b> .....	<b>2.07</b>	<b>13.62</b>	<b>21.46</b>	<b>2.11</b>	<b>10.87</b>	<b>9.01</b>	<b>4.12</b>
<b>2009 Average</b> .....	<b>2.21</b>	<b>8.98</b>	<b>13.22</b>	<b>1.61</b>	<b>7.02</b>	<b>4.74</b>	<b>3.04</b>
<b>2010</b>							
January .....	2.23	11.85	15.73	1.72	9.72	6.71	3.74
February .....	2.27	12.11	15.69	1.80	9.51	6.07	3.45
March .....	2.31	12.44	16.42	2.09	8.95	5.29	3.16
April .....	2.29	13.17	17.10	2.18	7.95	4.71	3.01
May .....	2.26	12.36	16.54	2.22	9.47	4.79	3.12
June .....	2.25	11.96	16.12	2.15	9.26	5.12	3.34
July .....	2.27	12.28	15.89	2.42	9.63	5.18	3.51
August .....	2.30	12.28	16.24	2.65	9.18	4.92	3.39
September .....	2.28	12.34	16.53	2.67	9.35	4.45	3.10
October .....	2.27	13.53	17.14	2.43	9.13	4.30	2.94
November .....	2.26	14.06	17.43	2.22	10.86	4.35	2.94
December .....	2.23	14.61	18.56	2.57	11.29	5.43	3.32
<b>Average</b> .....	<b>2.27</b>	<b>12.57</b>	<b>16.61</b>	<b>2.28</b>	<b>9.54</b>	<b>5.09</b>	<b>3.26</b>
<b>2011</b>							
January .....	2.32	14.80	19.59	3.13	11.83	5.39	3.37
February .....	2.35	15.94	20.93	2.84	11.60	5.09	3.27
March .....	2.34	17.59	22.59	3.09	12.98	4.64	3.12
April .....	2.38	18.21	24.06	3.20	13.04	4.86	3.29
May .....	2.43	17.57	23.04	3.31	13.21	4.89	3.39
June .....	2.40	20.38	23.13	2.78	14.29	5.04	3.52
July .....	2.45	20.18	22.95	3.30	12.13	4.98	3.62
August .....	2.47	17.09	22.51	3.08	10.52	4.73	3.44
September .....	2.44	19.66	22.73	2.93	11.51	4.56	3.26
October .....	2.39	19.62	23.20	3.32	13.20	4.33	3.14
November .....	2.37	19.47	23.38	2.58	13.03	4.10	3.04
December .....	2.34	20.99	22.45	2.74	12.11	4.04	3.02
<b>Average</b> .....	<b>2.39</b>	<b>18.35</b>	<b>22.46</b>	<b>3.03</b>	<b>12.48</b>	<b>4.72</b>	<b>3.30</b>
<b>2012</b>							
January .....	2.43	20.81	22.87	2.71	12.76	3.67	2.98
February .....	2.40	21.04	23.73	2.57	12.61	3.32	2.83
March .....	2.41	21.60	24.80	2.43	12.31	2.96	2.73
April .....	2.44	22.83	24.30	2.64	13.17	2.68	2.65
May .....	2.44	22.54	23.23	2.68	13.88	2.90	2.75
June .....	2.38	22.19	21.66	2.73	13.41	3.08	2.81
July .....	2.41	19.72	21.80	2.93	13.95	3.41	2.98
August .....	2.42	19.59	23.15	2.51	13.24	3.48	2.97
September .....	2.39	20.77	24.30	2.43	10.33	3.38	2.87
October .....	2.38	20.70	24.85	2.07	12.24	3.81	3.00
November .....	2.38	20.43	24.37	2.46	12.27	4.23	3.10
<b>11-Month Average</b> ...	<b>2.41</b>	<b>21.02</b>	<b>23.44</b>	<b>2.55</b>	<b>12.73</b>	<b>3.34</b>	<b>2.88</b>
<b>2011 11-Month Average</b> ...	<b>2.40</b>	<b>18.19</b>	<b>22.46</b>	<b>3.06</b>	<b>12.52</b>	<b>4.79</b>	<b>3.32</b>
<b>2010 11-Month Average</b> ...	<b>2.27</b>	<b>12.42</b>	<b>16.37</b>	<b>2.26</b>	<b>9.39</b>	<b>5.06</b>	<b>3.25</b>

<sup>a</sup> Prices are not adjusted for inflation. See "Nominal Dollars" in Glossary.  
<sup>b</sup> For 1973–2001, electric utility data are for heavy oil (fuel oil nos. 5 and 6, and small amounts of fuel oil no. 4).  
<sup>c</sup> For 1973–2001, electric utility data are for light oil (fuel oil nos. 1 and 2).  
<sup>d</sup> Distillate fuel oil, residual fuel oil, petroleum coke, jet fuel, kerosene, other petroleum, and waste oil. For 1973–1982, data do not include refined motor oil, bunker oil, and liquefied petroleum gases. For 1973–1989, data do not include petroleum coke.  
<sup>e</sup> 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.  
<sup>f</sup> Weighted average of costs shown under "Coal," "Petroleum," and "Natural Gas."

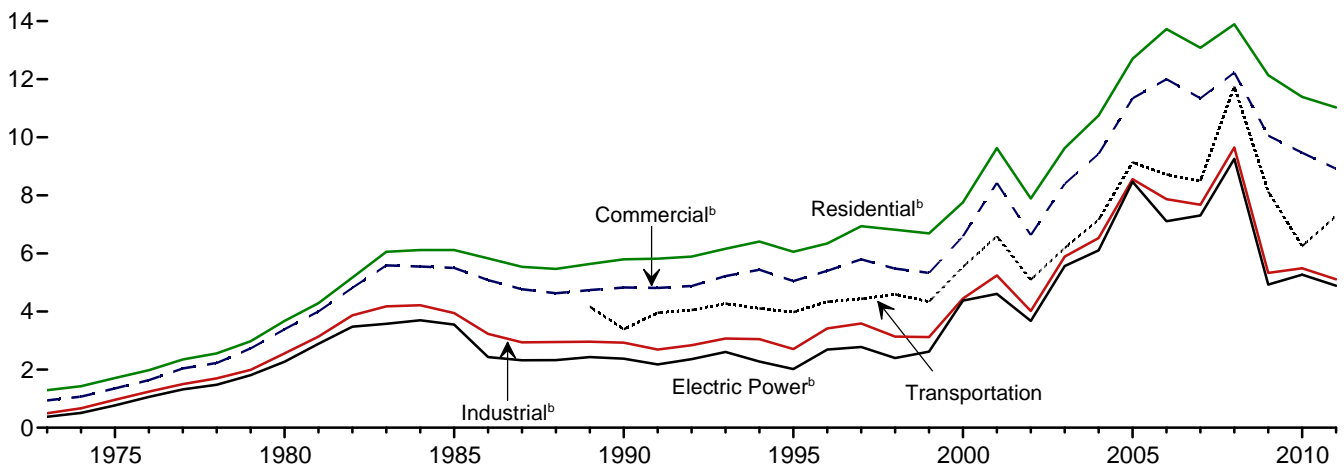
<sup>g</sup> Through 2001, data are for electric utilities only. Beginning in 2002, data also include independent power producers, and electric generating plants in the commercial and industrial sectors. See Note 8, "Costs of Fossil-Fuel Receipts at Electric Generating Plants," at end of section for plant coverage.  
 NA=Not available.  
 Notes: • Receipts are purchases of fuel. • Yearly costs are averages of monthly values, weighted by quantities in Btu. • Geographic coverage is the 50 States and the District of Columbia.  
 Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#prices> for all available data beginning in 1973.  
 Sources: See end of section.

**Figure 9.4 Natural Gas Prices**  
(Dollars<sup>a</sup> per Thousand Cubic Feet)

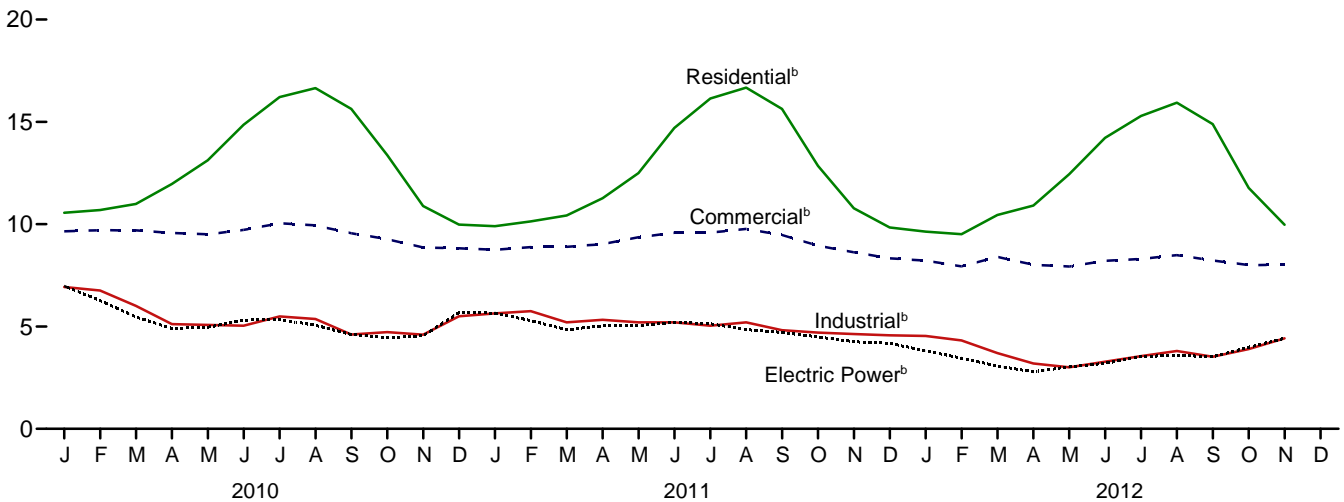
Selected Prices, 1973-2011



Consuming Sectors, 1973-2011



Consuming Sectors, Monthly



<sup>a</sup>Prices are not adjusted for inflation. See "Nominal Dollars" in Glossary.  
<sup>b</sup>Includes taxes.

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

**Table 9.10 Natural Gas Prices**  
(Dollars<sup>a</sup> per Thousand Cubic Feet)

	Wellhead Price	City-gate Price	Consuming Sectors <sup>b</sup>								
			Residential		Commercial <sup>c</sup>		Industrial <sup>d</sup>		Transportation	Electric Power <sup>e</sup>	
			Price <sup>f</sup>	Percentage of Sector <sup>g</sup>	Price <sup>f</sup>	Percentage of Sector <sup>g</sup>	Price <sup>f</sup>	Percentage of Sector <sup>g</sup>	Vehicle Fuel <sup>h</sup> Price <sup>f</sup>	Price <sup>f</sup>	Percentage of Sector <sup>g,i</sup>
<b>1973 Average</b> .....	0.22	NA	1.29	NA	0.94	NA	0.50	NA	NA	0.38	92.1
<b>1975 Average</b> .....	.44	NA	1.71	NA	1.35	NA	.96	NA	NA	.77	96.1
<b>1980 Average</b> .....	1.59	NA	3.68	NA	3.39	NA	2.56	NA	NA	2.27	96.9
<b>1985 Average</b> .....	2.51	3.75	6.12	NA	5.50	NA	3.95	68.8	NA	3.55	94.0
<b>1990 Average</b> .....	1.71	3.03	5.80	99.2	4.83	86.6	2.93	35.2	3.39	2.38	76.8
<b>1995 Average</b> .....	1.55	2.78	6.06	99.0	5.05	76.7	2.71	24.5	3.98	2.02	71.4
<b>1996 Average</b> .....	2.17	3.27	6.34	99.0	5.40	77.6	3.42	19.4	4.34	2.69	68.4
<b>1997 Average</b> .....	2.32	3.66	6.94	98.8	5.80	70.8	3.59	18.1	4.44	2.78	68.0
<b>1998 Average</b> .....	1.96	3.07	6.82	97.7	5.48	67.0	3.14	16.1	4.59	2.40	63.7
<b>1999 Average</b> .....	2.19	3.10	6.69	95.2	5.33	66.1	3.12	18.8	4.34	2.62	58.3
<b>2000 Average</b> .....	3.68	4.62	7.76	92.6	6.59	63.9	4.45	19.8	5.54	4.38	50.5
<b>2001 Average</b> .....	4.00	5.72	9.63	92.4	8.43	66.0	5.24	20.8	6.60	4.61	40.2
<b>2002 Average</b> .....	2.95	4.12	7.89	97.9	6.63	77.4	4.02	22.7	5.10	<sup>e</sup> 3.68	83.9
<b>2003 Average</b> .....	4.88	5.85	9.63	97.5	8.40	78.2	5.89	22.1	6.19	5.57	91.2
<b>2004 Average</b> .....	5.46	6.65	10.75	97.7	9.43	78.0	6.53	23.6	7.16	6.11	89.8
<b>2005 Average</b> .....	7.33	8.67	12.70	98.1	11.34	82.1	8.56	24.0	9.14	8.47	91.3
<b>2006 Average</b> .....	6.39	8.61	13.73	98.1	12.00	80.8	7.87	23.4	8.72	7.11	93.4
<b>2007 Average</b> .....	6.25	8.16	13.08	98.0	11.34	80.4	7.68	22.2	8.50	7.31	92.2
<b>2008 Average</b> .....	7.97	9.18	13.89	97.5	12.23	79.7	9.65	20.4	11.75	9.26	101.1
<b>2009 Average</b> .....	3.67	6.48	12.14	97.4	10.06	77.8	5.33	18.8	8.13	4.93	101.1
<b>2010 January</b> .....	5.69	6.84	10.56	97.4	9.65	81.2	6.93	18.3	NA	6.98	101.0
February .....	5.30	6.64	10.69	97.8	9.71	81.7	6.76	17.8	NA	6.27	100.5
March .....	4.70	6.50	10.99	97.6	9.70	79.7	6.01	17.6	NA	5.47	101.0
April .....	4.10	5.88	11.97	96.2	9.57	75.7	5.12	17.0	NA	4.91	100.9
May .....	4.24	5.81	13.12	97.1	9.50	73.0	5.08	17.1	NA	4.96	100.9
June .....	4.27	6.02	14.86	96.9	9.72	71.9	5.04	17.3	NA	5.31	100.6
July .....	4.44	6.31	16.21	96.8	10.04	70.6	5.49	17.5	NA	5.34	100.6
August .....	4.38	6.22	16.65	96.4	9.94	69.8	5.37	17.0	NA	5.06	100.5
September .....	3.83	5.72	15.63	96.7	9.56	68.5	4.61	16.7	NA	4.61	100.7
October .....	4.05	5.70	13.37	96.8	9.27	71.8	4.73	16.1	NA	4.45	101.3
November .....	4.12	5.48	10.89	97.4	8.86	77.7	4.60	16.9	NA	4.55	101.0
December .....	4.68	5.74	9.98	97.7	8.82	80.2	5.50	17.1	NA	5.68	101.3
<b>Average</b> .....	<b>4.48</b>	<b>6.18</b>	<b>11.39</b>	<sup>R</sup> <b>97.4</b>	<b>9.47</b>	<b>77.5</b>	<b>5.49</b>	<b>18.0</b>	<b>6.25</b>	<b>5.27</b>	<b>100.8</b>
<b>2011 January</b> .....	4.37	5.69	9.90	96.5	8.75	72.8	5.64	17.1	NA	5.66	101.7
February .....	4.34	5.75	10.14	96.5	8.88	72.0	5.75	16.9	NA	5.29	101.8
March .....	3.95	5.73	10.43	96.2	8.89	69.6	5.20	16.8	NA	4.84	101.0
April .....	4.05	5.62	11.27	96.0	9.03	66.4	5.33	16.3	NA	5.03	101.6
May .....	4.12	5.80	12.50	96.2	9.36	63.9	5.20	16.7	NA	5.04	101.3
June .....	4.20	6.12	14.70	96.3	9.58	61.7	5.20	16.2	NA	5.20	101.1
July .....	4.27	6.16	16.14	96.3	9.59	60.1	5.04	17.0	NA	5.13	100.5
August .....	4.20	6.19	16.67	95.7	9.77	58.1	5.20	16.4	NA	4.85	101.0
September .....	3.82	5.94	15.63	95.5	9.47	57.8	4.82	16.2	NA	4.71	101.4
October .....	3.62	5.45	12.85	95.7	8.95	61.4	4.70	16.2	NA	4.49	101.5
November .....	3.35	5.29	10.78	95.2	8.63	66.1	4.63	16.5	NA	4.26	101.1
December .....	3.14	5.03	9.84	96.4	8.33	69.1	4.57	17.0	NA	4.18	101.4
<b>Average</b> .....	<b>3.95</b>	<b>5.63</b>	<b>11.03</b>	<b>96.2</b>	<b>8.92</b>	<b>67.3</b>	<b>5.11</b>	<b>16.6</b>	<b>7.29</b>	<b>4.89</b>	<b>101.2</b>
<b>2012 January</b> .....	<sup>E</sup> 2.89	4.86	9.64	96.2	8.22	70.4	4.54	16.5	NA	3.81	100.8
February .....	<sup>E</sup> 2.46	4.74	9.51	96.1	7.94	69.1	4.32	16.6	NA	3.45	100.4
March .....	<sup>E</sup> 2.25	4.84	10.45	96.2	8.40	67.1	3.70	16.5	NA	3.07	100.3
April .....	<sup>E</sup> 1.89	4.20	10.91	95.5	8.02	63.6	3.19	15.8	NA	2.79	101.1
May .....	<sup>E</sup> 1.94	4.32	12.44	95.6	7.93	60.8	3.01	16.1	NA	3.03	100.8
June .....	<sup>E</sup> 2.54	4.66	14.22	95.6	8.21	<sup>R</sup> 60.6	3.28	16.0	NA	3.20	100.7
July .....	<sup>E</sup> 2.59	4.90	15.29	95.6	8.30	59.1	3.55	16.4	NA	3.53	100.7
August .....	<sup>E</sup> 2.86	5.17	15.94	95.1	8.49	57.1	3.80	17.2	NA	3.59	100.5
September .....	<sup>E</sup> 2.71	4.77	14.89	95.1	<sup>R</sup> 8.23	57.6	3.52	17.1	NA	3.52	101.3
October .....	<sup>E</sup> 3.03	4.67	<sup>R</sup> 11.77	95.2	8.00	<sup>R</sup> 60.8	3.90	17.0	NA	3.98	101.4
November .....	<sup>E</sup> 3.35	4.81	9.97	95.5	8.01	65.8	4.42	17.5	NA	4.42	100.4
<b>11-Month Average</b> .....	<sup>E</sup> <b>2.59</b>	<b>4.74</b>	<b>10.85</b>	<b>95.8</b>	<b>8.14</b>	<b>64.9</b>	<b>3.78</b>	<b>16.6</b>	<b>NA</b>	<b>3.46</b>	<b>100.8</b>
<b>2011 11-Month Average</b> .....	<b>4.03</b>	<b>5.73</b>	<b>11.22</b>	<b>96.2</b>	<b>9.01</b>	<b>67.1</b>	<b>5.17</b>	<b>16.6</b>	<b>NA</b>	<b>4.96</b>	<b>101.2</b>
<b>2010 11-Month Average</b> .....	<b>4.47</b>	<b>6.26</b>	<b>11.68</b>	<b>97.3</b>	<b>9.58</b>	<b>77.0</b>	<b>5.49</b>	<b>17.2</b>	<b>NA</b>	<b>5.23</b>	<b>100.8</b>

<sup>a</sup> Prices are not adjusted for inflation. See "Nominal Dollars" in Glossary.

<sup>b</sup> See Note 9, "Natural Gas Prices," at end of section.

<sup>c</sup> Commercial sector, including commercial combined-heat-and-power (CHP) and commercial electricity-only plants. See Note, "Classification of Power Plants Into Energy-Use Sectors," at end of Section 7.

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

<sup>e</sup> The electric power sector comprises electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public. Through 2001, data are for electric utilities only; beginning in 2002, data also include independent power producers. See Note 8, "Costs of Fossil-Fuel Receipts at Electric Generating Plants," at end of section for plant coverage.

<sup>f</sup> Includes taxes.

<sup>g</sup> 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.

<sup>h</sup> 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.

<sup>i</sup> Percentages exceed 100 percent when reported natural gas receipts are greater than reported natural gas consumption—this can occur when combined-heat-and-power plants report fuel receipts related to non-electric generating activities.

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

Notes: • Prices are for natural gas, plus a small amount of supplemental gaseous fuels. • Prices are intended to include all taxes. See Note 9, "Natural Gas Prices," at end of section. • Wellhead annual and year-to-date prices are simple averages of the monthly prices; all other annual and year-to-date prices are volume-weighted averages of the monthly prices. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#prices> for all available data beginning in 1973.

Sources: See end of section.

## Energy Prices

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

**Note 2. Crude Oil F.O.B. Costs.** F.O.B. literally means “Free on Board.” It denotes a transaction whereby the seller makes the product available with an agreement on a given port at a given price; it is the responsibility of the buyer to arrange for the transportation and insurance.

**Note 3. Crude Oil Landed Costs.** The landed cost of imported crude oil from selected countries does not represent the total cost of all imported crude. Prior to April 1975, imported crude costs to U.S. company-owned refineries in the Caribbean were not included in the landed cost, and costs of crude oil from countries that export only small amounts to the United States were also excluded. Beginning in April 1975, however, coverage was expanded to include U.S. company-owned refineries in the Caribbean. Landed costs do not include supplemental fees.

**Note 4. Crude Oil Refinery Acquisition Costs.** Beginning with January 1981, refiner acquisition costs of crude oil are from data collected on U.S. Energy Information Administration (EIA) Form EIA-14, “Refiners’ Monthly Cost Report.” Those costs were previously published from data collected on Economic Regulatory Administration (ERA) Form ERA-49, “Domestic Crude Oil Entitlements Program Refiners Monthly Report.” Form ERA-49 was discontinued with the decontrol of crude oil on January 28, 1981. Crude oil purchases and costs are defined for Form EIA-14 in accordance with conventions used for Form ERA-49. The respondents for the two forms are also essentially the same. However, due to possible different interpretations of the filing requirements and a different method for handling prior period adjustments, care must be taken when comparing the data collected on the two forms.

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

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

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

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

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

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

the wholesale category, are now counted as made to end users. The end-user category continues to include retail sales through company-owned and operated outlets but also includes sales to the bulk consumers such as agriculture, industry, and electric utilities. Additional information may be found in “Estimated Historic Time Series for the EIA-782,” a feature article by Paula Weir, printed in the December 1983 [3] *Petroleum Marketing Monthly*, published by EIA.

**Note 7. Electricity Retail Prices.** Average annual retail prices of electricity have the following plant coverage: Through 1979, annual data are for Classes A and B privately owned electric utilities only. For 1980–1982, annual data are for selected Class A utilities whose electric operating revenues were \$100 million or more during the previous year. For 1983, annual data are for a selected sample of electric utilities. Beginning in 1984, data are for a census of electric utilities. Beginning in 1996, annual data also include energy service providers selling to retail customers.

Average monthly retail prices of electricity have the following plant coverage: Through 1985, monthly data are derived from selected privately owned electric utilities and, therefore, are not national averages. Beginning in 1986, monthly data are based on a sample of publicly and privately owned electric utilities. Beginning in 1996, monthly data also include energy service providers selling to retail customers.

Preliminary monthly data are from Form EIA-826, “Monthly Electric Sales and Revenue Report With State Distributions Report,” which is a monthly collection of data from approximately 450 of the largest publicly and privately owned electric utilities as well as a census of energy service providers with retail sales in deregulated States; a model is then applied to the collected data to estimate for the entire universe of U.S. electric utilities. Preliminary annual data are the sum of the monthly revenues divided by the sum of the monthly sales. When final annual data become available each year from Form EIA-861, “Annual Electric Power Industry Report,” their ratios to the preliminary Form EIA-826 values are used to derive adjusted final monthly values.

**Note 8. Costs of Fossil-Fuel Receipts at Electric Generating Plants.** Data for 1973–1982 cover all regulated electric generating plants at which the generator nameplate capacity of all steam-electric units combined totaled 25 megawatts or greater. From 1974–1982, peaking units were included in the data and counted towards the 25-megawatt-or-greater total. Data for 1983–1990 cover all regulated electric generating plants at which the generator nameplate capacity of all steam-electric units combined totaled 50 megawatts or greater. Data for 1991–2001 cover all regulated electric generating plants at which the generator nameplate capacity of all steam-electric units and combined-cycle units together totaled 50

megawatts or greater. Data for 2002 forward cover the aforementioned regulated generating plants plus unregulated generating plants (independent power producers, as well as combined-heat-and-power generating plants and electricity-only plants in the commercial and industrial sector) whose total facility fossil-fueled nameplate generating capacity is 50 or more megawatts, regardless of unit type.

**Note 9. Natural Gas Prices.** Natural gas prices are intended to include all taxes. Instructions on the data collection forms specifically direct that all Federal, State, and local taxes, surcharges, and/or adjustments billed to consumers are to be included. However, sales and other taxes itemized on more than 3,000 consumers’ bills are sometimes excluded by the reporting utilities. Delivered-to-consumers prices for 1987 forward represent natural gas delivered and sold to residential, commercial, industrial, vehicle fuel, and electric power consumers. They do not include the price of natural gas delivered on behalf of third parties to residential, commercial, industrial, and vehicle fuel customers except for certain States in the residential and commercial sectors for 2002 forward. Volumes of natural gas delivered on behalf of third parties are included in the consumption data shown in Table 4.3. Additional information is available in the EIA *Natural Gas Monthly*, Appendix C.

## Table 9.1 Sources

### Domestic First Purchase Price

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

1977: Federal Energy Administration, based on Form FEA-P124, “Domestic Crude Oil Purchaser’s Monthly Report.”

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

2010 forward: EIA, *Petroleum Marketing Monthly*, February 2013, 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.”

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

2010 forward: EIA, *Petroleum Marketing Monthly*, February 2013, Table 1.

### Refiner Acquisition Cost

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

1974–1976: DOI, BOM, *Minerals Yearbook*, “Crude Petroleum and Petroleum Products” chapter.

1977: January–September, FEA, based on Form FEA-P110-M-1, “Refiners’ Monthly Cost Allocation Report.” October–December, EIA, based on Form FEA-P110-M-1, “Refiners’ Monthly Cost Allocation Report.”

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

2010 forward: EIA, *Petroleum Marketing Monthly*, February 2013, 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.”

1978–2009: EIA, *Petroleum Marketing Annual 2009*, Table 21.

2010 forward: EIA, *Petroleum Marketing Monthly*, February 2013, 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*, January 2013, Table 4.1; and Form EIA-923, “Power Plant Operations Report.”

## Table 9.10 Sources

### All Prices Except Vehicle Fuel and Electric Power

1973–2006: U.S. Energy Information Administration (EIA), *Natural Gas Annual (NGA)*, annual reports and unpublished revisions.

2007 forward: EIA, *Natural Gas Monthly (NGM)*, January 2013, Table 3.

### Vehicle Fuel Price

EIA, NGA, annual reports.

### Electric Power Sector Price

1973–1998: EIA, NGA 2000, Table 96.

1999–2002: EIA, NGM, October 2004, Table 4.

2003–2007: Federal Energy Regulatory Commission, Form FERC-423, “Monthly Report of Cost and Quality of Fuels for Electric Utility Plants,” and EIA, Form EIA-423 “Monthly Cost and Quality of Fuels for Electric Plants Report.”

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

### Percentage of Residential Sector

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

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

### Percentage of Commercial Sector

1987–2006: 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.

2007 forward: EIA, NGM, January 2013, Table 3.

### Percentage of Industrial Sector

1982–2006: 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.

2007 forward: EIA, NGM, January 2013, Table 3.

### Percentage of Electric Power Sector

1973–2001: Calculated by EIA as the quantity of natural gas receipts by electric utilities reported on Form FERC-423, “Monthly Report of Cost and Quantity of Fuels for Electric Utility Plants” (and predecessor forms) divided by the quantity of natural gas consumed by the electric power sector (for 1973–1988, see *Monthly Energy Review (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 Quantity of Fuels for Electric Utility Plants,” and EIA-423, “Monthly Cost and Quality of Fuels for Electric Plants Report,” divided by the quantity of natural gas consumed by the electric power sector (see 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).

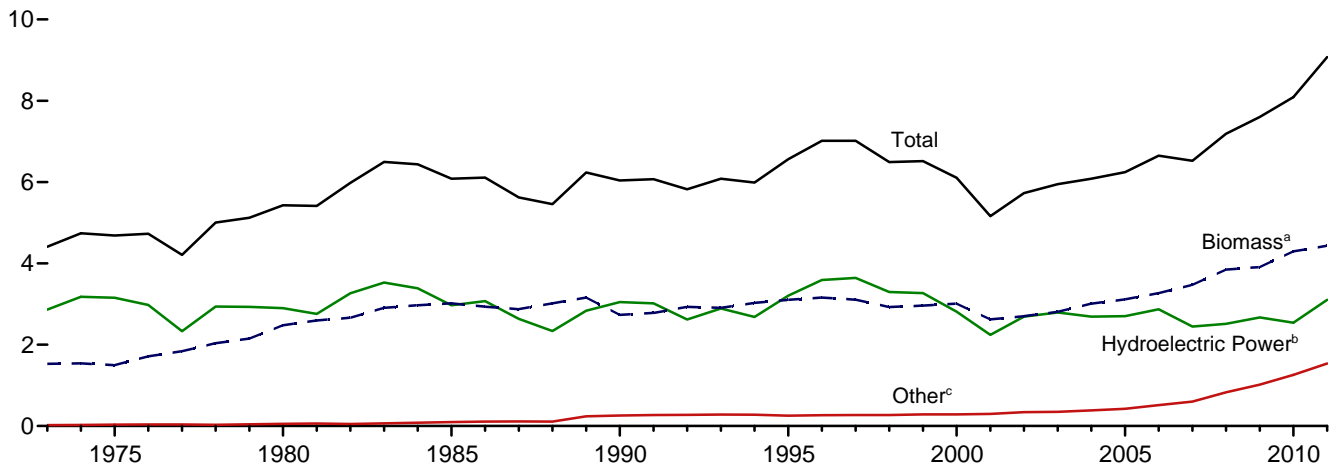


# 10. Renewable Energy

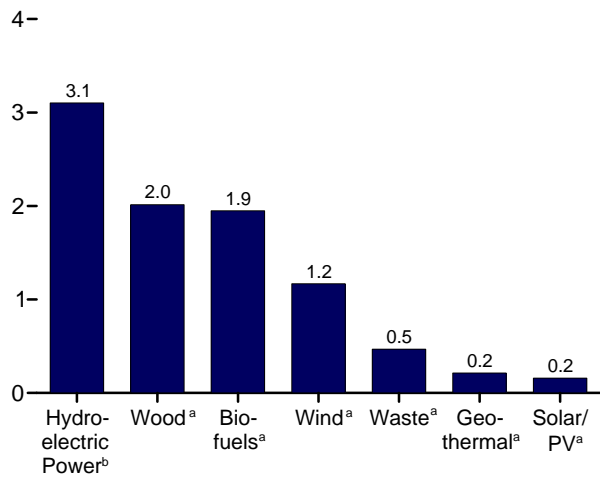
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**Figure 10.1 Renewable Energy Consumption**  
(Quadrillion Btu)

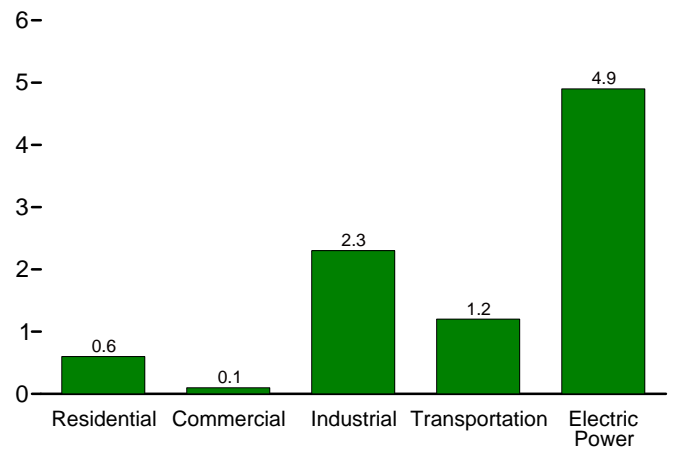
Total and Major Sources, 1973-2011



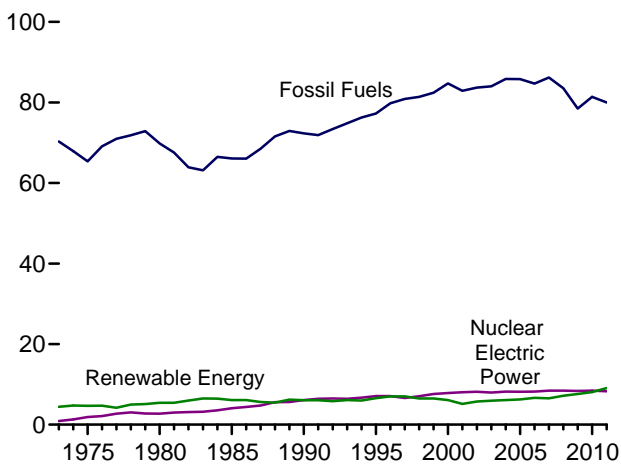
By Source, 2011



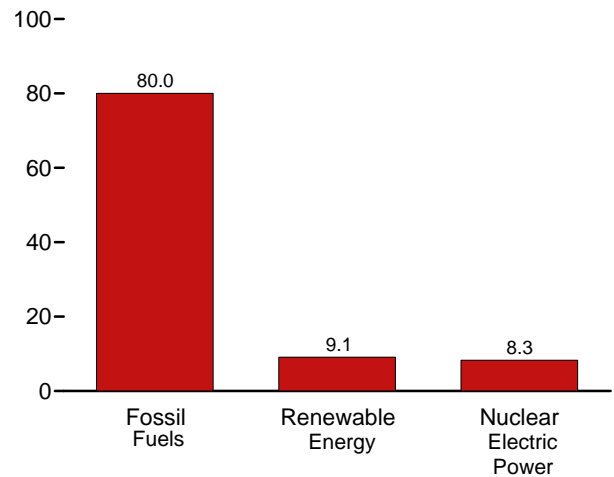
By Sector, 2011



Compared With Other Resources, 1973-2011



Compared With Other Resources, 2011



<sup>a</sup> See Table 10.1 for definition.  
<sup>b</sup> Conventional hydroelectric power.  
<sup>c</sup> 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 <sup>a</sup>			Consumption								
	Biomass		Total Renewable Energy <sup>d</sup>	Hydroelectric Power <sup>e</sup>	Geothermal <sup>f</sup>	Solar/PV <sup>g</sup>	Wind <sup>h</sup>	Biomass				Total Renewable Energy
	Bio-fuels <sup>b</sup>	Total <sup>c</sup>						Wood <sup>i</sup>	Waste <sup>j</sup>	Bio-fuels <sup>k</sup>	Total	
<b>1973 Total</b> .....	NA	1,529	4,411	2,861	20	NA	NA	1,527	2	NA	1,529	4,411
<b>1975 Total</b> .....	NA	1,499	4,687	3,155	34	NA	NA	1,497	2	NA	1,499	4,687
<b>1980 Total</b> .....	NA	2,475	5,428	2,900	53	NA	NA	2,474	2	NA	2,475	5,428
<b>1985 Total</b> .....	93	3,016	6,084	2,970	97	(s)	(s)	2,687	236	93	3,016	6,084
<b>1990 Total</b> .....	111	2,735	6,041	3,046	171	59	29	2,216	408	111	2,735	6,041
<b>1995 Total</b> .....	198	3,099	6,558	3,205	152	69	33	2,370	531	200	3,101	6,560
<b>1996 Total</b> .....	141	3,155	7,012	3,590	163	70	33	2,437	577	143	3,157	7,014
<b>1997 Total</b> .....	186	3,108	7,018	3,640	167	70	34	2,371	551	184	3,105	7,016
<b>1998 Total</b> .....	202	2,929	6,494	3,297	168	69	31	2,184	542	201	2,927	6,493
<b>1999 Total</b> .....	211	2,965	6,517	3,268	171	68	46	2,214	540	209	2,963	6,516
<b>2000 Total</b> .....	233	3,006	6,104	2,811	164	66	57	2,262	511	236	3,008	6,106
<b>2001 Total</b> .....	254	2,624	5,164	2,242	164	64	70	2,006	364	253	2,622	5,163
<b>2002 Total</b> .....	308	2,705	5,734	2,689	171	63	105	1,995	402	303	2,701	5,729
<b>2003 Total</b> .....	402	2,805	5,947	2,793	173	62	113	2,002	401	404	2,807	5,948
<b>2004 Total</b> .....	487	2,998	6,069	2,688	178	63	142	2,121	389	499	3,010	6,081
<b>2005 Total</b> .....	564	3,104	6,229	2,703	181	63	178	2,137	403	577	3,117	6,242
<b>2006 Total</b> .....	720	3,216	6,599	2,869	181	68	264	2,099	397	771	3,267	6,649
<b>2007 Total</b> .....	978	3,461	6,509	2,446	186	76	341	2,070	413	991	3,474	6,523
<b>2008 Total</b> .....	1,387	3,864	7,202	2,511	192	89	546	2,040	436	1,372	3,849	7,186
<b>2009 Total</b> .....	1,584	3,928	7,616	2,669	200	98	721	1,891	453	1,568	3,912	7,600
<b>2010 January</b> .....	152	359	672	218	18	10	67	168	39	142	349	662
February .....	142	332	610	201	16	9	53	154	35	136	326	605
March .....	158	366	682	204	18	10	84	168	40	149	357	673
April .....	152	351	661	186	17	10	95	160	39	149	348	657
May .....	157	358	717	245	18	11	85	162	39	155	356	715
June .....	152	355	753	291	17	11	79	164	39	155	357	755
July .....	158	367	701	239	17	11	66	170	40	158	368	701
August .....	160	371	662	196	18	11	65	171	40	159	370	660
September .....	156	360	626	168	17	11	69	166	38	153	357	622
October .....	163	369	646	173	17	10	77	166	39	160	366	643
November .....	164	369	682	191	17	10	95	165	40	157	363	676
December .....	168	383	726	226	18	10	88	174	41	163	377	720
<b>Total</b> .....	1,884	4,341	8,136	2,539	208	126	923	1,988	469	1,837	4,294	8,090
<b>2011 January</b> .....	169	385	747	248	R 18	12	83	177	39	153	369	731
February .....	151	346	710	234	17	12	102	158	36	145	339	703
March .....	171	380	816	303	18	13	102	170	39	160	369	805
April .....	163	359	813	303	17	13	121	160	36	154	349	804
May .....	170	369	832	317	18	14	114	161	38	164	363	826
June .....	168	375	824	312	17	14	107	168	39	168	374	824
July .....	171	384	792	304	18	14	73	172	40	162	374	782
August .....	174	387	742	250	18	14	73	173	40	174	386	741
September .....	166	372	677	208	17	13	67	167	38	160	365	670
October .....	176	382	708	192	18	13	102	166	40	167	373	699
November .....	178	386	738	201	18	13	121	167	41	167	375	727
December .....	186	405	770	231	18	13	104	177	42	176	395	760
<b>Total</b> .....	2,044	4,527	R 9,168	3,103	R 212	158	1,168	2,014	469	1,948	4,432	R 9,072
<b>2012 January</b> .....	177	390	785	227	19	15	134	174	39	154	367	763
February .....	164	362	701	198	18	15	108	162	36	152	351	690
March .....	172	373	795	250	19	17	135	162	40	163	365	786
April .....	164	356	770	254	18	17	124	155	38	160	353	767
May .....	173	378	816	277	19	19	122	166	40	172	378	816
June .....	165	368	780	259	19	19	116	164	39	164	366	779
July .....	157	368	751	260	19	19	85	171	40	158	369	753
August .....	163	370	713	225	19	19	81	169	39	168	375	719
September .....	152	353	645	171	19	18	84	164	38	150	352	644
October .....	156	359	676	157	19	19	122	164	40	161	364	681
November .....	152	356	687	183	19	17	112	164	40	152	356	687
<b>11-Month Total</b> ...	1,794	4,035	8,122	2,461	207	195	1,223	1,813	428	1,756	3,997	8,084
<b>2011 11-Month Total</b> ...	1,858	4,123	8,398	2,872	194	145	1,064	1,838	427	1,772	4,037	8,312
<b>2010 11-Month Total</b> ...	1,715	3,958	7,411	2,313	190	116	835	1,814	428	1,674	3,917	7,370

<sup>a</sup> Production equals consumption for all renewable energy sources except biofuels.

<sup>b</sup> Total biomass inputs to the production of fuel ethanol and biodiesel.

<sup>c</sup> Wood and wood-derived fuels, biomass waste, and total biomass inputs to the production of fuel ethanol and biodiesel.

<sup>d</sup> Hydroelectric power, geothermal, solar thermal/photovoltaic, wind, and biomass.

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

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

<sup>g</sup> 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.

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

<sup>i</sup> Wood and wood-derived fuels.

<sup>j</sup> 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).

<sup>k</sup> Fuel ethanol (minus denaturant) and biodiesel consumption, plus losses and co-products from the production of fuel ethanol and biodiesel.

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

Notes: • Most data for the residential, commercial, industrial, and transportation sectors are estimates. See notes and sources for Tables 10.2a and 10.2b. • See Note, "Renewable Energy Production and Consumption," at end of section.

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

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

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#renewable> for all available 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 <sup>a</sup>								
	Geo-thermal <sup>b</sup>	Solar/ PV <sup>c</sup>	Biomass		Hydro- electric Power <sup>e</sup>	Geo- thermal <sup>b</sup>	Solar/ PV <sup>f</sup>	Wind <sup>g</sup>	Biomass				Total
			Wood <sup>d</sup>	Total					Wood <sup>d</sup>	Waste <sup>h</sup>	Fuel Ethanol <sup>i</sup>	Total	
<b>1973 Total</b> .....	NA	NA	354	354	NA	NA	NA	NA	7	NA	NA	7	7
<b>1975 Total</b> .....	NA	NA	425	425	NA	NA	NA	NA	8	NA	NA	8	8
<b>1980 Total</b> .....	NA	NA	850	850	NA	NA	NA	NA	21	NA	NA	21	21
<b>1985 Total</b> .....	NA	NA	1,010	1,010	NA	NA	NA	NA	24	NA	(s)	24	24
<b>1990 Total</b> .....	6	56	580	641	1	3	—	—	66	28	(s)	94	98
<b>1995 Total</b> .....	7	64	520	591	1	5	—	—	72	40	(s)	113	118
<b>1996 Total</b> .....	7	65	540	612	1	5	—	—	76	53	(s)	129	135
<b>1997 Total</b> .....	8	64	430	502	1	6	—	—	73	58	(s)	131	138
<b>1998 Total</b> .....	8	64	380	452	1	7	—	—	64	54	(s)	118	127
<b>1999 Total</b> .....	9	63	390	461	1	7	—	—	67	54	(s)	121	129
<b>2000 Total</b> .....	9	61	420	489	1	8	—	—	71	47	(s)	119	128
<b>2001 Total</b> .....	9	59	370	438	1	8	—	—	67	25	(s)	92	101
<b>2002 Total</b> .....	10	57	380	448	(s)	9	—	—	69	26	(s)	95	104
<b>2003 Total</b> .....	13	57	400	470	1	11	—	—	71	29	1	101	113
<b>2004 Total</b> .....	14	57	410	481	1	12	—	—	70	34	1	105	118
<b>2005 Total</b> .....	16	58	430	504	1	14	—	—	70	34	1	105	120
<b>2006 Total</b> .....	18	63	380	462	1	14	—	—	65	36	1	103	118
<b>2007 Total</b> .....	22	70	410	502	1	14	—	—	70	31	2	103	118
<b>2008 Total</b> .....	26	80	450	557	1	15	(s)	—	73	34	2	109	125
<b>2009 Total</b> .....	33	89	430	552	1	17	(s)	(s)	72	36	3	112	129
<b>2010 January</b> .....	3	10	36	48	(s)	2	(s)	(s)	6	3	(s)	9	11
February .....	3	9	32	44	(s)	1	(s)	(s)	5	3	(s)	8	10
March .....	3	10	36	48	(s)	2	(s)	(s)	6	3	(s)	9	11
April .....	3	9	35	47	(s)	2	(s)	(s)	6	3	(s)	9	11
May .....	3	10	36	48	(s)	2	(s)	(s)	6	4	(s)	10	12
June .....	3	9	35	47	(s)	2	(s)	(s)	6	3	(s)	9	11
July .....	3	10	36	48	(s)	2	(s)	(s)	6	3	(s)	9	11
August .....	3	10	36	48	(s)	2	(s)	(s)	6	3	(s)	10	11
September .....	3	9	35	47	(s)	2	(s)	(s)	6	3	(s)	9	11
October .....	3	10	36	48	(s)	2	(s)	(s)	6	3	(s)	9	11
November .....	3	9	35	47	(s)	2	(s)	(s)	6	3	(s)	9	10
December .....	3	10	36	48	(s)	2	(s)	(s)	6	3	(s)	9	11
<b>Total</b> .....	<b>37</b>	<b>114</b>	<b>420</b>	<b>571</b>	<b>1</b>	<b>19</b>	<b>(s)</b>	<b>(s)</b>	<b>72</b>	<b>36</b>	<b>3</b>	<b>111</b>	<b>130</b>
<b>2011 January</b> .....	3	12	37	52	(s)	2	(s)	(s)	6	3	(s)	10	11
February .....	3	11	33	47	(s)	2	(s)	(s)	5	3	(s)	9	10
March .....	3	12	37	52	(s)	2	(s)	(s)	6	3	(s)	10	11
April .....	3	12	35	50	(s)	2	(s)	(s)	6	3	(s)	9	11
May .....	3	12	37	52	(s)	2	(s)	(s)	6	4	(s)	10	12
June .....	3	12	35	50	(s)	2	(s)	(s)	6	4	(s)	10	12
July .....	3	12	37	52	(s)	2	(s)	(s)	6	4	(s)	10	12
August .....	3	12	37	52	(s)	2	(s)	(s)	6	4	(s)	10	12
September .....	3	12	35	50	(s)	2	(s)	(s)	6	4	(s)	10	11
October .....	3	12	37	52	(s)	2	(s)	(s)	6	4	(s)	10	12
November .....	3	12	35	50	(s)	2	(s)	(s)	6	4	(s)	10	12
December .....	3	12	37	52	(s)	2	(s)	(s)	6	4	(s)	10	12
<b>Total</b> .....	<b>40</b>	<b>140</b>	<b>430</b>	<b>610</b>	<b>(s)</b>	<b>20</b>	<b>1</b>	<b>(s)</b>	<b>71</b>	<b>43</b>	<b>3</b>	<b>117</b>	<b>138</b>
<b>2012 January</b> .....	3	14	36	54	(s)	2	(s)	(s)	6	4	(s)	10	12
February .....	3	13	34	51	(s)	2	(s)	(s)	6	4	(s)	10	11
March .....	3	14	36	54	(s)	2	(s)	(s)	6	4	(s)	10	12
April .....	3	14	35	52	(s)	2	(s)	(s)	6	3	(s)	10	11
May .....	3	14	36	54	(s)	2	(s)	(s)	6	4	(s)	10	12
June .....	3	14	35	52	(s)	2	(s)	(s)	6	3	(s)	9	11
July .....	3	14	36	54	(s)	2	(s)	(s)	6	4	(s)	10	12
August .....	3	14	36	54	(s)	2	(s)	(s)	6	3	(s)	10	12
September .....	3	14	35	52	(s)	2	(s)	(s)	6	3	(s)	10	11
October .....	3	14	36	54	(s)	2	(s)	(s)	6	4	(s)	10	12
November .....	3	14	35	52	(s)	2	(s)	(s)	6	4	(s)	10	12
<b>11-Month Total</b> ...	<b>36</b>	<b>155</b>	<b>394</b>	<b>585</b>	<b>(s)</b>	<b>18</b>	<b>1</b>	<b>(s)</b>	<b>65</b>	<b>40</b>	<b>3</b>	<b>108</b>	<b>128</b>
<b>2011 11-Month Total</b> ...	<b>36</b>	<b>129</b>	<b>393</b>	<b>558</b>	<b>(s)</b>	<b>18</b>	<b>1</b>	<b>(s)</b>	<b>65</b>	<b>39</b>	<b>3</b>	<b>107</b>	<b>126</b>
<b>2010 11-Month Total</b> ...	<b>34</b>	<b>104</b>	<b>384</b>	<b>522</b>	<b>1</b>	<b>17</b>	<b>(s)</b>	<b>(s)</b>	<b>65</b>	<b>33</b>	<b>3</b>	<b>102</b>	<b>120</b>

<sup>a</sup> Commercial sector, including commercial combined-heat-and-power (CHP) and commercial electricity-only plants. See Note, "Classification of Power Plants Into Energy-Use Sectors," at end of Section 7.  
<sup>b</sup> Geothermal heat pump and direct use energy.  
<sup>c</sup> 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.  
<sup>d</sup> Wood and wood-derived fuels.  
<sup>e</sup> Conventional hydroelectricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6).  
<sup>f</sup> 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.  
<sup>g</sup> Wind electricity net generation (converted to Btu using the fossil-fuels heat

rate—see Table A6).  
<sup>h</sup> 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).  
<sup>i</sup> 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> for all available data beginning in 1973.  
 Sources: See end of section.

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

	Industrial Sector <sup>a</sup>										Transportation Sector		
	Hydro-electric Power <sup>b</sup>	Geo-thermal <sup>c</sup>	Solar/PV <sup>d</sup>	Wind <sup>e</sup>	Biomass					Total	Biomass		
					Wood <sup>f</sup>	Waste <sup>g</sup>	Fuel Ethanol <sup>h</sup>	Losses and Co-products <sup>i</sup>	Total		Fuel Ethanol <sup>j</sup>	Bio-diesel	Total
1973 Total	35	NA	NA	NA	1,165	NA	NA	NA	1,165	1,200	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
1996 Total	61	3	-	-	1,683	224	1	61	1,969	2,033	81	NA	81
1997 Total	58	3	-	-	1,731	184	1	80	1,996	2,057	102	NA	102
1998 Total	55	3	-	-	1,603	180	1	86	1,872	1,929	113	NA	113
1999 Total	49	4	-	-	1,620	171	1	90	1,882	1,934	118	NA	118
2000 Total	42	4	-	-	1,636	145	1	99	1,881	1,928	135	NA	135
2001 Total	33	5	-	-	1,443	129	3	108	1,681	1,719	141	1	142
2002 Total	39	5	-	-	1,396	146	3	130	1,676	1,720	168	2	170
2003 Total	43	3	-	-	1,363	142	4	169	1,679	1,725	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	-	-	1,405	144	10	377	1,936	1,956	557	46	602
2008 Total	17	5	-	-	1,340	144	12	532	2,028	2,049	786	40	826
2009 Total	18	4	-	-	1,208	155	13	617	1,994	2,016	894	42	935
2010 January	2	(s)	(s)	-	109	15	1	60	185	187	81	(s)	81
February	2	(s)	(s)	-	100	13	1	56	170	172	76	3	79
March	2	(s)	(s)	-	110	15	1	62	188	190	83	2	85
April	2	(s)	(s)	-	105	15	1	60	181	183	84	4	87
May	2	(s)	(s)	-	106	14	1	62	183	185	89	3	92
June	1	(s)	(s)	-	107	13	2	60	182	183	90	2	93
July	1	(s)	(s)	-	111	14	2	62	188	190	91	3	94
August	1	(s)	(s)	-	111	14	2	63	190	191	91	3	94
September	1	(s)	(s)	-	110	13	1	61	185	187	86	4	90
October	1	(s)	(s)	-	110	15	2	64	190	192	91	3	94
November	1	(s)	(s)	-	108	15	1	65	190	191	88	3	91
December	1	(s)	(s)	-	114	15	2	67	198	199	92	3	94
Total	16	4	(s)	-	1,301	169	17	742	2,230	2,250	1,040	34	1,074
2011 January	1	(s)	(s)	(s)	117	15	1	66	200	202	82	3	86
February	2	(s)	(s)	(s)	104	14	1	59	178	180	80	4	84
March	2	(s)	(s)	(s)	112	15	1	65	193	196	87	6	93
April	2	(s)	(s)	(s)	106	13	1	62	183	185	82	8	90
May	2	(s)	(s)	(s)	105	14	2	64	185	187	90	8	98
June	1	(s)	(s)	(s)	111	13	2	63	189	191	92	10	102
July	1	(s)	(s)	(s)	113	14	1	64	192	194	86	10	96
August	1	(s)	(s)	(s)	113	14	2	65	193	195	95	12	107
September	1	(s)	(s)	(s)	111	14	1	62	188	189	83	13	96
October	1	(s)	(s)	(s)	109	15	1	65	191	193	89	11	100
November	1	(s)	(s)	(s)	112	15	1	66	195	197	86	13	99
December	2	(s)	(s)	(s)	118	15	2	69	204	206	91	14	105
Total	17	4	(s)	(s)	1,332	171	17	771	2,291	2,313	1,044	113	1,157
2012 January	2	(s)	(s)	(s)	116	15	1	67	199	201	81	5	86
February	2	(s)	(s)	(s)	108	14	1	61	184	186	82	8	89
March	2	(s)	(s)	(s)	106	14	1	64	185	187	87	10	98
April	2	(s)	(s)	(s)	103	14	1	61	179	181	86	11	98
May	2	(s)	(s)	(s)	110	14	2	64	190	192	93	14	107
June	1	(s)	(s)	(s)	108	14	2	61	185	186	90	11	101
July	1	(s)	(s)	(s)	112	15	1	58	186	188	88	10	98
August	1	(s)	(s)	(s)	110	15	2	60	186	187	95	11	106
September	1	(s)	(s)	(s)	108	14	1	56	179	181	83	9	92
October	1	(s)	(s)	(s)	108	15	2	58	183	184	93	8	101
November	2	(s)	(s)	(s)	108	15	1	58	182	185	84	9	93
11-Month Total	16	4	(s)	(s)	1,195	158	16	669	2,038	2,058	962	106	1,068
2011 11-Month Total	16	4	(s)	(s)	1,214	156	16	702	2,087	2,107	953	99	1,052
2010 11-Month Total	15	4	(s)	-	1,186	154	16	676	2,032	2,051	949	31	980

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

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

<sup>c</sup> Geothermal heat pump and direct use energy.

<sup>d</sup> 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.

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

<sup>f</sup> Wood and wood-derived fuels.

<sup>g</sup> 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).

<sup>h</sup> The fuel ethanol (minus denaturant) portion of motor fuels, such as E10, consumed by the industrial sector.

<sup>i</sup> 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.

<sup>j</sup> 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 1973-1978 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> for all available data beginning in 1973.

Sources: See end of section.

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

	Hydro-electric Power <sup>a</sup>	Geo-thermal <sup>b</sup>	Solar/PV <sup>c</sup>	Wind <sup>d</sup>	Biomass			Total
					Wood <sup>e</sup>	Waste <sup>f</sup>	Total	
<b>1973 Total</b> .....	2,827	20	NA	NA	1	2	3	2,851
<b>1975 Total</b> .....	3,122	34	NA	NA	(s)	2	2	3,158
<b>1980 Total</b> .....	2,867	53	NA	NA	3	2	4	2,925
<b>1985 Total</b> .....	2,937	97	(s)	(s)	8	7	14	3,049
<b>1990 Total</b> <sup>g</sup> .....	3,014	161	4	29	129	188	317	3,524
<b>1995 Total</b> .....	3,149	138	5	33	125	296	422	3,747
<b>1996 Total</b> .....	3,528	148	5	33	138	300	438	4,153
<b>1997 Total</b> .....	3,581	150	5	34	137	309	446	4,216
<b>1998 Total</b> .....	3,241	151	5	31	137	308	444	3,872
<b>1999 Total</b> .....	3,218	152	5	46	138	315	453	3,874
<b>2000 Total</b> .....	2,768	144	5	57	134	318	453	3,427
<b>2001 Total</b> .....	2,209	142	6	70	126	211	337	2,763
<b>2002 Total</b> .....	2,650	147	6	105	150	230	380	3,288
<b>2003 Total</b> .....	2,749	146	5	113	167	230	397	3,411
<b>2004 Total</b> .....	2,655	148	6	142	165	223	388	3,339
<b>2005 Total</b> .....	2,670	147	6	178	185	221	406	3,406
<b>2006 Total</b> .....	2,839	145	5	264	182	231	412	3,665
<b>2007 Total</b> .....	2,430	145	6	341	186	237	423	3,345
<b>2008 Total</b> .....	2,494	146	9	546	177	258	435	3,630
<b>2009 Total</b> .....	2,650	146	9	721	180	261	441	3,967
<b>2010</b> .....								
January .....	217	13	(s)	67	17	21	39	335
February .....	199	11	(s)	53	16	20	36	300
March .....	202	13	1	84	16	22	39	338
April .....	184	12	1	95	15	21	36	329
May .....	243	13	1	85	14	22	36	378
June .....	290	12	2	79	16	23	39	421
July .....	238	12	2	66	17	23	40	358
August .....	195	13	2	65	18	23	41	315
September .....	168	12	1	69	16	22	38	288
October .....	171	12	1	77	15	22	37	298
November .....	190	12	1	95	16	23	39	337
December .....	225	13	(s)	88	17	23	41	367
<b>Total</b> .....	<b>2,521</b>	<b>148</b>	<b>12</b>	<b>923</b>	<b>196</b>	<b>264</b>	<b>459</b>	<b>4,064</b>
<b>2011</b> .....								
January .....	247	13	(s)	83	17	21	37	381
February .....	233	12	1	102	16	19	35	382
March .....	301	13	1	102	15	21	36	453
April .....	301	12	2	121	12	20	32	467
May .....	315	13	2	114	13	21	34	477
June .....	311	12	2	107	16	22	37	469
July .....	303	12	2	73	17	22	39	429
August .....	249	12	2	73	17	22	39	376
September .....	207	12	2	67	15	21	37	323
October .....	191	12	1	102	14	22	36	343
November .....	199	12	1	121	14	22	36	369
December .....	229	13	1	103	16	23	39	R 385
<b>Total</b> .....	<b>3,085</b>	<b>149</b>	<b>17</b>	<b>1,167</b>	<b>182</b>	<b>255</b>	<b>437</b>	<b>4,855</b>
<b>2012</b> .....								
January .....	225	14	1	134	16	21	37	410
February .....	196	13	1	108	15	19	34	353
March .....	249	14	2	135	14	21	35	435
April .....	252	13	3	124	11	20	31	424
May .....	276	14	5	122	13	22	35	451
June .....	257	13	5	116	15	21	36	428
July .....	259	14	5	85	16	22	38	401
August .....	224	13	4	80	16	21	38	360
September .....	170	13	4	84	15	20	36	307
October .....	156	14	4	122	14	21	35	330
November .....	181	14	3	112	15	22	36	346
<b>11-Month Total</b> ...	<b>2,445</b>	<b>149</b>	<b>38</b>	<b>1,223</b>	<b>160</b>	<b>230</b>	<b>391</b>	<b>4,245</b>
<b>2011 11-Month Total</b> ...	<b>2,856</b>	<b>136</b>	<b>16</b>	<b>1,064</b>	<b>166</b>	<b>232</b>	<b>398</b>	<b>4,469</b>
<b>2010 11-Month Total</b> ...	<b>2,297</b>	<b>136</b>	<b>11</b>	<b>835</b>	<b>178</b>	<b>241</b>	<b>419</b>	<b>3,697</b>

<sup>a</sup> Conventional hydroelectricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6).  
<sup>b</sup> Geothermal electricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6).  
<sup>c</sup> Solar thermal and photovoltaic (PV) electricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6).  
<sup>d</sup> Wind electricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6).  
<sup>e</sup> Wood and wood-derived fuels.  
<sup>f</sup> 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).  
<sup>g</sup> Through 1988, data are for electric utilities only. Beginning in 1989, data are for electric utilities and independent power producers.  
 R=Revised. NA=Not available. (s)=Less than 0.5 trillion Btu.  
 Notes: • The electric power sector comprises electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.  
 Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#renewable> for all available data beginning in 1973.  
 Sources: • **Biomass:** Table 7.4b. • **All Other Data:** Tables 7.2b and A6.

**Table 10.3 Fuel Ethanol Overview**

	Feedstock <sup>a</sup>	Losses and Co-products <sup>b</sup>	Denaturant <sup>c</sup>	Production <sup>d</sup>			Trade <sup>d</sup>	Stocks <sup>d,f</sup>	Stock Change <sup>d,g</sup>	Consumption <sup>d</sup>			Consumption Minus Denaturant <sup>h</sup>
							Net Imports <sup>e</sup>						
							TBtu						
<b>1981 Total</b> .....	13	6	40	1,978	83	7	NA	NA	NA	1,978	83	7	7
<b>1985 Total</b> .....	93	42	294	14,693	617	52	NA	NA	NA	14,693	617	52	51
<b>1990 Total</b> .....	111	49	356	17,802	748	63	NA	NA	NA	17,802	748	63	62
<b>1995 Total</b> .....	198	86	647	32,325	1,358	115	387	2,186	-207	32,919	1,383	117	114
<b>1996 Total</b> .....	141	61	464	23,178	973	83	313	2,065	-121	23,612	992	84	82
<b>1997 Total</b> .....	186	80	613	30,674	1,288	109	85	2,925	860	29,899	1,256	107	104
<b>1998 Total</b> .....	202	86	669	33,453	1,405	119	66	3,406	481	33,038	1,388	118	115
<b>1999 Total</b> .....	211	90	698	34,881	1,465	124	87	4,024	618	34,350	1,443	122	119
<b>2000 Total</b> .....	233	99	773	38,627	1,622	138	116	3,400	-624	39,367	1,653	140	137
<b>2001 Total</b> .....	253	108	841	42,028	1,765	150	315	4,298	898	41,445	1,741	148	144
<b>2002 Total</b> .....	307	130	1,019	50,956	2,140	182	306	6,200	1,902	49,360	2,073	176	171
<b>2003 Total</b> .....	400	169	1,335	66,772	2,804	238	292	5,978	-222	67,286	2,826	240	233
<b>2004 Total</b> .....	484	203	1,621	81,058	3,404	289	3,542	6,002	24	84,576	3,552	301	293
<b>2005 Total</b> .....	552	230	1,859	92,961	3,904	331	3,234	5,563	-439	96,634	4,059	344	335
<b>2006 Total</b> .....	688	285	2,326	116,294	4,884	414	17,408	8,760	3,197	130,505	5,481	465	453
<b>2007 Total</b> .....	914	376	3,105	155,263	6,521	553	10,457	10,535	1,775	163,945	6,886	584	569
<b>2008 Total</b> .....	1,300	531	4,433	221,637	9,309	790	12,610	14,226	3,691	230,556	9,683	821	800
<b>2009 Total</b> .....	1,517	616	5,688	260,424	10,938	928	4,720	16,594	2,368	262,776	11,037	936	910
<b>2010</b>													
January .....	149	60	541	25,625	1,076	91	-234	18,251	1,657	23,734	997	85	82
February .....	138	56	496	23,802	1,000	85	-482	19,297	1,046	22,274	936	79	77
March .....	154	62	537	26,486	1,112	94	-1,104	20,222	925	24,457	1,027	87	85
April .....	147	59	522	25,384	1,066	90	-927	20,042	-180	24,637	1,035	88	85
May .....	152	61	534	26,244	1,102	93	-368	19,851	-191	26,067	1,095	93	90
June .....	149	60	522	25,632	1,077	91	-341	18,565	-1,286	26,577	1,116	95	92
July .....	154	62	543	26,584	1,117	95	-578	17,809	-756	26,762	1,124	95	93
August .....	157	63	538	26,964	1,132	96	-695	17,380	-429	26,698	1,121	95	93
September .....	152	61	533	26,221	1,101	93	-924	17,437	57	25,240	1,060	90	88
October .....	160	64	563	27,471	1,154	98	-830	17,278	-159	26,800	1,126	95	93
November .....	161	65	585	27,747	1,165	99	-923	18,150	872	25,952	1,090	92	90
December .....	165	67	592	28,457	1,195	101	-1,711	17,941	-209	26,955	1,132	96	93
<b>Total</b> .....	<b>1,839</b>	<b>742</b>	<b>6,506</b>	<b>316,617</b>	<b>13,298</b>	<b>1,127</b>	<b>-9,115</b>	<b>17,941</b>	<b>1,347</b>	<b>306,155</b>	<b>12,858</b>	<b>1,090</b>	<b>1,061</b>
<b>2011</b>													
January .....	165	66	581	28,467	1,196	101	-1,359	20,826	2,885	24,223	1,017	86	84
February .....	146	59	535	25,300	1,063	90	-1,425	21,016	190	23,685	995	84	82
March .....	163	65	548	28,178	1,183	100	-2,003	21,593	577	25,598	1,075	91	89
April .....	154	62	508	26,538	1,115	94	-2,865	21,065	-528	24,201	1,016	86	84
May .....	160	64	550	27,720	1,164	99	-1,743	20,609	-456	26,433	1,110	94	92
June .....	158	63	540	27,224	1,143	97	-1,533	19,217	-1,392	27,083	1,137	96	94
July .....	159	64	555	27,541	1,157	98	-2,731	18,788	-429	25,239	1,060	90	88
August .....	162	65	575	27,976	1,175	100	-665	18,123	-665	27,976	1,175	100	97
September .....	154	62	525	26,588	1,117	95	-1,745	18,465	342	24,501	1,029	87	85
October .....	162	65	557	28,013	1,177	100	-2,388	18,038	-427	26,052	1,094	93	90
November .....	164	66	573	28,383	1,192	101	-2,911	18,308	270	25,202	1,058	90	87
December .....	172	69	602	29,718	1,248	106	-2,997	18,238	-70	26,791	1,125	95	93
<b>Total</b> .....	<b>1,919</b>	<b>769</b>	<b>6,649</b>	<b>331,646</b>	<b>13,929</b>	<b>1,181</b>	<b>-24,365</b>	<b>18,238</b>	<b>297</b>	<b>306,984</b>	<b>12,893</b>	<b>1,093</b>	<b>1,065</b>
<b>2012</b>													
January .....	167	67	583	29,063	1,221	103	-1,789	21,753	<sup>i</sup> 3,492	23,782	999	85	82
February .....	154	61	528	26,653	1,119	95	-1,785	22,572	819	24,049	1,010	86	83
March .....	160	64	522	27,706	1,164	99	-1,626	22,952	380	25,700	1,079	91	89
April .....	152	61	494	26,368	1,107	94	-1,549	22,370	-582	25,401	1,067	90	88
May .....	160	64	520	27,718	1,164	99	-1,013	21,851	-519	27,224	1,143	97	95
June .....	154	61	503	26,611	1,118	95	-613	21,456	-395	26,393	1,109	94	92
July .....	146	58	504	25,329	1,064	90	-502	20,373	-1,083	25,910	1,088	92	90
August .....	151	60	526	26,194	1,100	93	654	19,369	-1,004	27,852	1,170	99	97
September .....	141	56	497	24,511	1,029	87	694	20,044	675	24,530	1,030	87	85
October .....	146	58	528	25,352	1,065	90	609	18,762	-1,282	27,243	1,144	97	94
November .....	145	58	527	25,189	1,058	90	997	20,174	1,412	24,774	1,041	88	86
<b>11-Month Total</b> .....	<b>1,676</b>	<b>667</b>	<b>5,732</b>	<b>290,694</b>	<b>12,209</b>	<b>1,035</b>	<b>-5,923</b>	<b>20,174</b>	<b>1,913</b>	<b>282,858</b>	<b>11,880</b>	<b>1,007</b>	<b>981</b>
<b>2011 11-Month Total</b> .....	<b>1,747</b>	<b>700</b>	<b>6,047</b>	<b>301,928</b>	<b>12,681</b>	<b>1,075</b>	<b>-21,368</b>	<b>18,308</b>	<b>367</b>	<b>280,193</b>	<b>11,768</b>	<b>997</b>	<b>972</b>
<b>2010 11-Month Total</b> .....	<b>1,674</b>	<b>675</b>	<b>5,914</b>	<b>288,160</b>	<b>12,103</b>	<b>1,026</b>	<b>-7,405</b>	<b>18,150</b>	<b>1,556</b>	<b>279,199</b>	<b>11,726</b>	<b>994</b>	<b>968</b>

<sup>a</sup> Total corn and other biomass inputs to the production of undenatured ethanol used for fuel ethanol.

<sup>b</sup> Losses and co-products from the production of fuel ethanol. Does not include natural gas, electricity, and other non-biomass energy used in the production of fuel ethanol—these are included in the industrial sector consumption statistics for the appropriate energy source.

<sup>c</sup> The amount of denaturant in fuel ethanol produced.

<sup>d</sup> Includes denaturant.

<sup>e</sup> Through 2009, data are for fuel ethanol imports only; data for fuel ethanol exports are not available. Beginning in 2010, data are for fuel ethanol imports minus fuel ethanol exports.

<sup>f</sup> Stocks are at end of period.

<sup>g</sup> A negative value indicates a decrease in stocks and a positive value indicates an increase.

<sup>h</sup> Consumption of fuel ethanol minus denaturant. Data for fuel ethanol minus denaturant are used to develop data for "Renewable Energy/Biomass" in Tables 10.1–10.2b, as well as in Sections 1 and 2.

<sup>i</sup> Derived from the preliminary 2011 stocks value (18,261 thousand barrels), not the final 2011 value (18,238 thousand barrels) that is shown under "Stocks."

NA=Not available.

Notes: • Mbbl = thousand barrels. MMgal = million U.S. gallons. TBtu = trillion Btu. • Fuel ethanol data in thousand barrels are converted to million gallons by multiplying by 0.042, and are converted to Btu by multiplying by the approximate heat content of fuel ethanol—see Table A3. • Through 1980, data are not available. For 1981-1992, data are estimates. For 1993-2008, only data for feedstock, losses and co-products, and denaturant are estimates. Beginning in 2009, only data for feedstock, and losses and co-products, are estimates. • See "Denaturant," "Ethanol," "Fuel Ethanol," and "Fuel Ethanol Minus Denaturant" in Glossary. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#renewable> for all available data beginning in 1981.

Sources: See end of section.

**Table 10.4 Biodiesel Overview**

	Feed-stock <sup>a</sup>	Losses and Co-products <sup>b</sup>	Production			Trade			Stocks <sup>d</sup>	Stock Change <sup>e</sup>	Balancing Item <sup>f</sup>	Consumption		
						Imports	Exports	Net Imports <sup>c</sup>						
			TBtu	TBtu	Mbbl	MMgal	TBtu	Mbbl				Mbbl	Mbbl	Mbbl
<b>2001 Total</b> .....	<b>1</b>	<b>(s)</b>	<b>204</b>	<b>9</b>	<b>1</b>	<b>78</b>	<b>39</b>	<b>39</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>243</b>	<b>10</b>	<b>1</b>
<b>2002 Total</b> .....	<b>1</b>	<b>(s)</b>	<b>250</b>	<b>10</b>	<b>1</b>	<b>191</b>	<b>56</b>	<b>135</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>385</b>	<b>16</b>	<b>2</b>
<b>2003 Total</b> .....	<b>2</b>	<b>(s)</b>	<b>338</b>	<b>14</b>	<b>2</b>	<b>94</b>	<b>110</b>	<b>-16</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>322</b>	<b>14</b>	<b>2</b>
<b>2004 Total</b> .....	<b>4</b>	<b>(s)</b>	<b>666</b>	<b>28</b>	<b>4</b>	<b>97</b>	<b>124</b>	<b>-26</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>640</b>	<b>27</b>	<b>3</b>
<b>2005 Total</b> .....	<b>12</b>	<b>(s)</b>	<b>2,162</b>	<b>91</b>	<b>12</b>	<b>207</b>	<b>206</b>	<b>1</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>2,163</b>	<b>91</b>	<b>12</b>
<b>2006 Total</b> .....	<b>32</b>	<b>(s)</b>	<b>5,963</b>	<b>250</b>	<b>32</b>	<b>1,069</b>	<b>828</b>	<b>242</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>6,204</b>	<b>261</b>	<b>33</b>
<b>2007 Total</b> .....	<b>63</b>	<b>1</b>	<b>11,662</b>	<b>490</b>	<b>62</b>	<b>3,342</b>	<b>6,477</b>	<b>-3,135</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>8,528</b>	<b>358</b>	<b>46</b>
<b>2008 Total</b> .....	<b>88</b>	<b>1</b>	<b>16,145</b>	<b>678</b>	<b>87</b>	<b>7,502</b>	<b>16,128</b>	<b>-8,626</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>	<b>7,519</b>	<b>316</b>	<b>40</b>
<b>2009 Total</b> .....	<b>67</b>	<b>1</b>	<b>12,281</b>	<b>516</b>	<b>66</b>	<b>1,844</b>	<b>6,332</b>	<b>-4,489</b>	<b>711</b>	<b>711</b>	<b>669</b>	<b>7,750</b>	<b>326</b>	<b>42</b>
<b>2010 January</b> .....	<b>3</b>	<b>(s)</b>	<b>633</b>	<b>27</b>	<b>3</b>	<b>41</b>	<b>296</b>	<b>-256</b>	<b>1,049</b>	<b>338</b>	<b>0</b>	<b>40</b>	<b>2</b>	<b>(s)</b>
February .....	4	(s)	696	29	4	31	139	-108	1,039	-10	0	599	25	3
March .....	4	(s)	804	34	4	60	433	-374	1,057	18	0	412	17	2
April .....	4	(s)	814	34	4	45	227	-182	1,009	-48	0	680	29	4
May .....	4	(s)	760	32	4	80	251	-171	1,016	7	0	582	24	3
June .....	4	(s)	644	27	3	54	304	-249	968	-48	0	443	19	2
July .....	4	(s)	657	28	4	32	199	-167	830	-138	0	628	26	3
August .....	4	(s)	653	27	3	52	225	-173	771	-59	0	539	23	3
September .....	4	(s)	723	30	4	69	131	-62	682	-89	0	749	31	4
October .....	4	(s)	676	28	4	18	132	-114	650	-32	0	594	25	3
November .....	3	(s)	528	22	3	30	57	-27	676	26	0	475	20	3
December .....	3	(s)	588	25	3	34	109	-75	672	-4	0	517	22	3
<b>Total</b> .....	<b>44</b>	<b>1</b>	<b>8,177</b>	<b>343</b>	<b>44</b>	<b>546</b>	<b>2,503</b>	<b>-1,958</b>	<b>672</b>	<b>-39</b>	<b>0</b>	<b>6,258</b>	<b>263</b>	<b>34</b>
<b>2011 January</b> .....	<b>5</b>	<b>(s)</b>	<b>842</b>	<b>35</b>	<b>5</b>	<b>49</b>	<b>217</b>	<b>-169</b>	<b>1,016</b>	<b>939</b>	<b>0</b>	<b>634</b>	<b>27</b>	<b>3</b>
February .....	5	(s)	961	40	5	37	88	-51	1,217	201	0	709	30	4
March .....	8	(s)	1,419	60	8	53	197	-144	1,381	164	0	1,111	47	6
April .....	9	(s)	1,692	71	9	52	222	-169	1,408	27	0	1,495	63	8
May .....	10	(s)	1,838	77	10	48	192	-144	1,576	168	0	1,526	64	8
June .....	11	(s)	1,938	81	10	48	117	-69	1,524	-53	0	1,922	81	10
July .....	12	(s)	2,183	92	12	62	142	-80	1,748	224	0	1,879	79	10
August .....	12	(s)	2,273	95	12	65	71	-7	1,834	86	0	2,181	92	12
September .....	12	(s)	2,284	96	12	65	193	-127	1,617	-216	0	2,373	100	13
October .....	14	(s)	2,508	105	13	82	132	-49	1,965	347	0	2,111	89	11
November .....	14	(s)	2,494	105	13	66	131	-65	1,877	-88	0	2,517	106	13
December .....	14	(s)	2,604	109	14	234	39	195	2,012	135	0	2,664	112	14
<b>Total</b> .....	<b>125</b>	<b>2</b>	<b>23,035</b>	<b>967</b>	<b>123</b>	<b>861</b>	<b>1,740</b>	<b>-879</b>	<b>2,012</b>	<b>91,035</b>	<b>0</b>	<b>21,122</b>	<b>887</b>	<b>113</b>
<b>2012 January</b> .....	<b>9</b>	<b>(s)</b>	<b>1,700</b>	<b>71</b>	<b>9</b>	<b>44</b>	<b>248</b>	<b>-204</b>	<b>2,527</b>	<b>h 625</b>	<b>0</b>	<b>872</b>	<b>37</b>	<b>5</b>
February .....	10	(s)	1,837	77	10	58	119	-62	2,869	342	0	1,433	60	8
March .....	12	(s)	2,193	92	12	55	149	-93	3,053	184	0	1,915	80	10
April .....	12	(s)	2,180	92	12	49	221	-171	2,932	-121	0	2,130	89	11
May .....	13	(s)	2,373	100	13	94	306	-212	2,514	-418	0	2,579	108	14
June .....	12	(s)	2,162	91	12	102	375	-273	2,363	-151	0	2,039	86	11
July .....	11	(s)	2,065	87	11	160	408	-248	2,253	-110	0	1,927	81	10
August .....	12	(s)	2,140	90	11	43	386	-342	2,003	-250	0	2,048	86	11
September .....	11	(s)	1,935	81	10	81	282	-202	2,060	57	0	1,676	70	9
October .....	10	(s)	1,781	75	10	33	200	-167	2,183	123	0	1,491	63	8
November .....	7	(s)	1,356	57	7	9	65	-56	1,875	-309	0	1,609	68	9
<b>11-Month Total</b> ...	<b>118</b>	<b>2</b>	<b>21,722</b>	<b>912</b>	<b>116</b>	<b>729</b>	<b>2,760</b>	<b>-2,030</b>	<b>1,875</b>	<b>-28</b>	<b>0</b>	<b>19,719</b>	<b>828</b>	<b>106</b>
<b>2011 11-Month Total</b> ...	<b>111</b>	<b>2</b>	<b>20,432</b>	<b>858</b>	<b>109</b>	<b>628</b>	<b>1,701</b>	<b>-1,074</b>	<b>1,877</b>	<b>900</b>	<b>0</b>	<b>18,458</b>	<b>775</b>	<b>99</b>
<b>2010 11-Month Total</b> ...	<b>41</b>	<b>1</b>	<b>7,589</b>	<b>319</b>	<b>41</b>	<b>512</b>	<b>2,394</b>	<b>-1,883</b>	<b>676</b>	<b>-35</b>	<b>0</b>	<b>5,741</b>	<b>241</b>	<b>31</b>

<sup>a</sup> Total vegetable oil and other biomass inputs to the production of biodiesel.

<sup>b</sup> 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.

<sup>c</sup> Net imports equal imports minus exports.

<sup>d</sup> 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.

<sup>e</sup> A negative value indicates a decrease in stocks and a positive value indicates an increase.

<sup>f</sup> Beginning in 2009, because of incomplete data coverage and different data sources, "Balancing Item" is used to balance biodiesel supply and disposition.

<sup>g</sup> 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."

<sup>h</sup> Derived from the preliminary 2011 stocks value (1,902 thousand barrels), not the final 2011 value (2,012 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. • 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> for all available 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 production is assumed to equal consumption for all renewable energy sources except biofuels (biofuels production comprises biomass inputs to the production of fuel ethanol and biodiesel).

### Table 10.2a Sources

#### Residential Sector, Geothermal

Oregon Institute of Technology, Geo-Heat Center. Monthly estimates are created by dividing the annual estimates by the number of days in the year and then multiplying by the number of days in the month. (The annual estimate for the current year is set equal to that of the previous year.)

#### Residential Sector, Solar/PV

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 2012 is derived using the average annual growth rate for 2009–2011.)

#### Residential Sector, Wood

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

1980 forward: EIA, Form EIA-457, “Residential Energy Consumption Survey”; and EIA estimates based on Form EIA-457 and regional heating degree-day data. Monthly estimates are created by dividing the annual estimates by the number of days in the year and then multiplying by the number of days in the month. (The annual estimate for the current year is set equal to that of the previous year.)

#### Commercial Sector, Hydroelectric Power

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

Oregon Institute of Technology, Geo-Heat Center. Monthly estimates are created by dividing the annual estimates by the number of days in the year and then multiplying by the number of days in the month. (The annual estimate for the current year is set equal to that of the previous year.)

#### Commercial Sector, Solar/PV

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

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

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

1984: EIA 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 the current year is set equal to that of the previous year); monthly estimates are created by dividing

the annual estimates by the number of days in the year and then multiplying by the number of days in the month.

### **Commercial Sector, Biomass Waste**

EIA, MER, Table 7.4c.

### **Commercial Sector, Fuel Ethanol (Minus Denaturant)**

EIA, MER, Tables 3.5, 3.7a, and 10.3. Calculated as commercial sector motor gasoline consumption (Table 3.7a) divided by total motor gasoline product supplied (Table 3.5), and then multiplied by fuel ethanol (minus denaturant) consumption (Table 10.3).

## **Table 10.2b Sources**

### **Industrial Sector, Hydroelectric Power**

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**

Oregon Institute of Technology, Geo-Heat Center. Monthly estimates are created by dividing the annual estimates by the number of days in the year and then multiplying by the number of days in the month. (The annual estimate for the current year is set equal to that of the previous year.)

### **Industrial Sector, 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**

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

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

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

1985 and 1986: Values interpolated.

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

1988: Value interpolated.

1989 forward: EIA, *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 the current year is set equal to that of the previous year); monthly estimates are created by dividing the annual estimates by the number of days in the year and then multiplying by the number of days in the month.

### **Industrial Sector, Biomass Waste**

1981: EIA, *Estimates of U.S. Biofuels Consumption 1990*, Table 8; and EIA, MER, Table 10.2c. Estimates are calculated as total waste consumption minus electric power sector waste consumption.

1982 and 1983: EIA 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 the current year is set equal to that of the previous year); monthly estimates are created by dividing the annual estimates by the number of days in the year and then multiplying by the number of days in the month.

### **Industrial Sector, Fuel Ethanol (Minus Denaturant)**

EIA, MER, Tables 3.5, 3.7b, and 10.3. Calculated as industrial sector motor gasoline consumption (Table 3.7b) divided by total motor gasoline product supplied (Table

3.5), and then multiplied by fuel ethanol (minus denaturant) consumption (Table 10.3).

### **Industrial Sector, Losses and Co-products**

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)**

EIA, MER, Tables 3.5, 3.7c, and 10.3. Calculated as transportation sector motor gasoline consumption (Table 3.7c) divided by total motor gasoline product supplied (Table 3.5), and then multiplied by fuel ethanol (minus denaturant) consumption (Table 10.3).

### **Transportation Sector, Biodiesel**

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

## **Table 10.3 Sources**

### **Feedstock**

Calculated as fuel ethanol production (in thousand barrels) minus denaturant, and then multiplied by the fuel ethanol feedstock factor—see Table A3.

### **Losses and Co-products**

Calculated as fuel ethanol feedstock plus denaturant minus fuel ethanol production.

### **Denaturant**

1981–2008: Data in thousand barrels for petroleum denaturant in fuel ethanol produced are estimated as 2 percent of fuel ethanol production; these data are converted to Btu by multiplying by 4.645 million Btu per barrel (the estimated quantity-weighted factor of pentanes plus and conventional motor gasoline used as denaturant).

2009–2011: 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.

2012: 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."

2009–2011: EIA, PSA, annual reports, Table 1, data for net production of fuel ethanol at renewable fuels and oxygenate plants.

2012: EIA, PSM, monthly reports, Table 1, data for net production of fuel ethanol at renewable fuels and oxygenate plants.

### **Trade, Stocks, and Stock Change**

1992–2011: EIA, PSA, annual reports, Table 1.

2012: 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).

2009–2011: EIA, PSA, annual reports, Table 1. Calculated as fuel ethanol refinery and blender net inputs minus fuel ethanol adjustments.

2012: EIA, PSM, monthly reports, Table 1. Calculated as fuel ethanol refinery and blender net inputs minus fuel ethanol adjustments.

### **Consumption Minus Denaturant**

Calculated as fuel ethanol consumption minus the amount of denaturant in fuel ethanol consumed. Denaturant in fuel ethanol consumed is estimated by multiplying denaturant in fuel ethanol produced by the fuel ethanol consumption-to-production ratio.

## **Table 10.4 Sources**

### **Feedstock**

Calculated as biodiesel production in thousand barrels multiplied by 5.433 million Btu per barrel (the biodiesel feedstock factor—see Table A3).

### **Losses and Co-products**

Calculated as biodiesel feedstock minus biodiesel production.

### **Production**

2001–2005: U.S. Department of Agriculture, Commodity Credit Corporation, Bioenergy Program records. Annual data are derived from quarterly data. Monthly data are estimated by dividing the annual data by the number of days in the year and then multiplying by the number of days in the month.

2006: U.S. Department of Commerce, Bureau of the Census, “M311K—Fats and Oils: Production, Consumption, and Stocks,” data for soybean oil consumed in methyl esters (biodiesel). In addition, the 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 forward: EIA, *Monthly Biodiesel Production Report*, monthly reports, Table 1.

### **Trade**

2001–October 2012: 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); 3824.90.40.30, “Biodiesel/Mixes” (data for July 2010–2011); 3826.00.00.00, “Biodiesel B30-99” (data for 2012); and 3826.00.10.00, “Biodiesel B100” (data for 2012). 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); 3824.90.40.30, “Biodiesel <70%” (data for 2011); and 3826.00.00.00, “Biodiesel B=>30” (data for 2012). 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.

November 2012: EIA, *Petroleum Supply Monthly (PSM)*, monthly reports, Tables 37 and 49, data for biomass-based diesel fuel.

### **Stocks and Stock Change**

2009–2011: EIA, *Petroleum Supply Annual (PSA)*, annual reports, Table 1, data for renewable fuels except fuel ethanol.

2012: EIA, PSM, monthly reports, Table 1, data for renewable fuels except fuel ethanol.

### **Balancing Item**

Calculated as biodiesel consumption and biodiesel stock change minus biodiesel production and biodiesel net imports.

### **Consumption**

2001–2008: Calculated as biodiesel production plus biodiesel net imports.

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

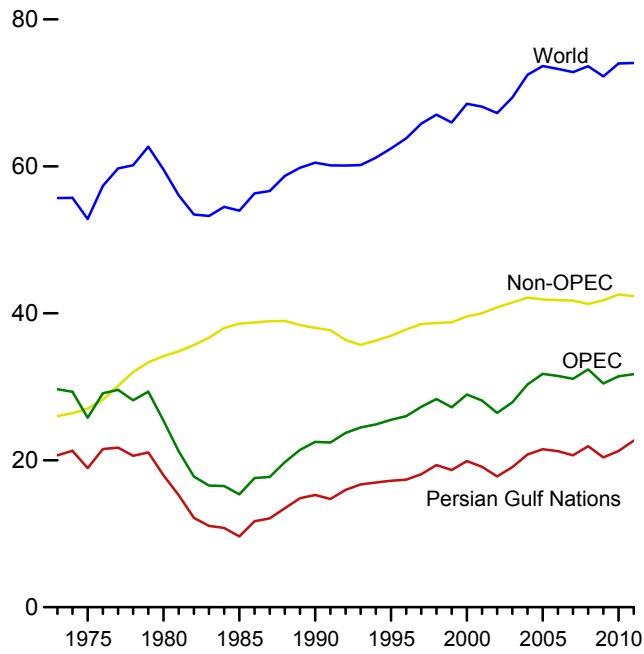
March 2009 forward: Calculated as biodiesel production plus biodiesel net imports minus biodiesel stock change.

# **11. International Petroleum**

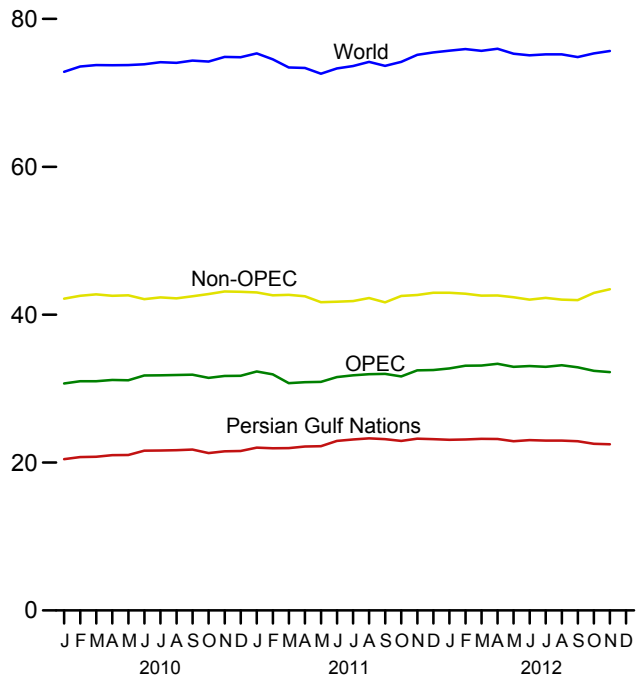
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**Figure 11.1a World Crude Oil Production Overview**  
(Million Barrels per Day)

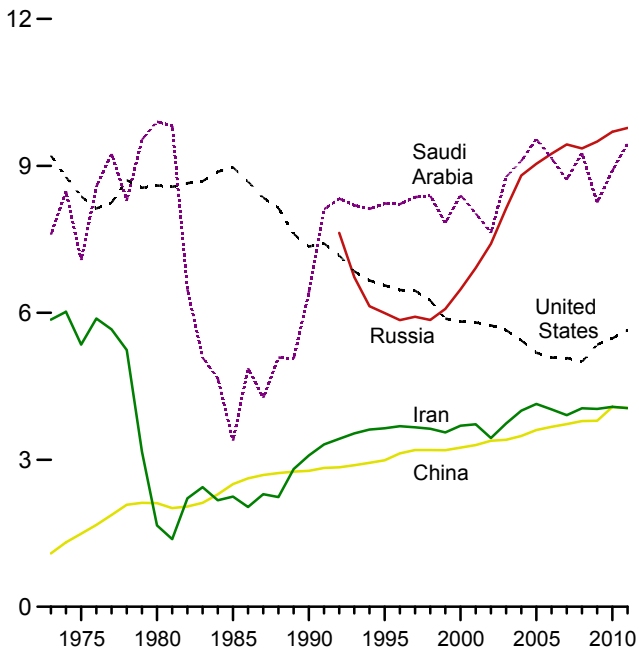
World Production, 1973-2011



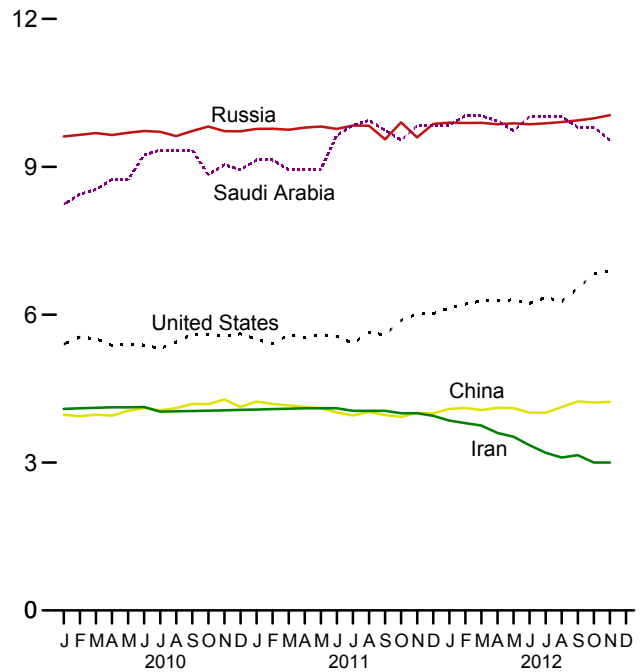
World Production, Monthly



Selected Producers, 1973-2011



Selected Producers, Monthly



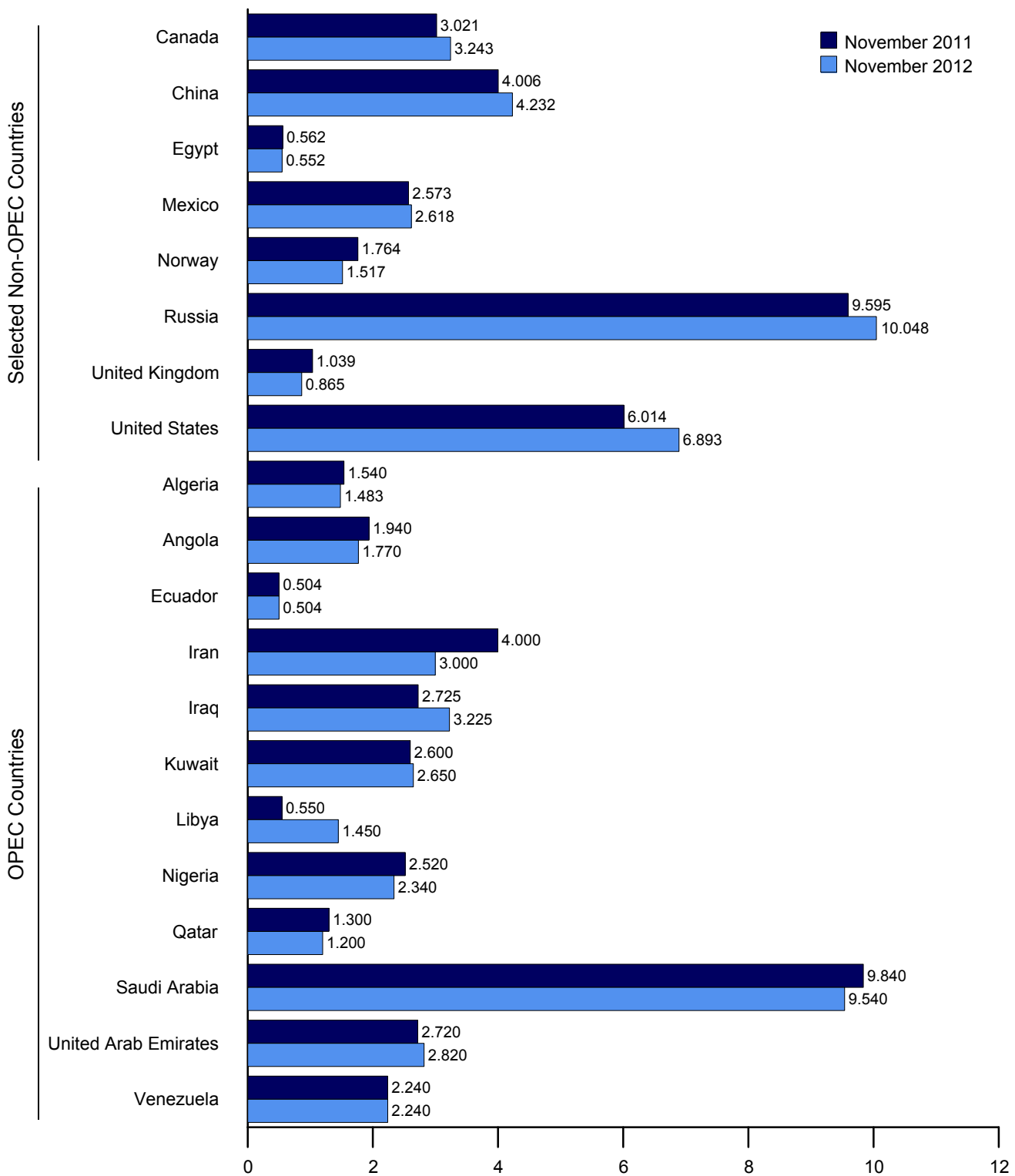
Notes: • OPEC is the Organization of the Petroleum Exporting Countries. • The Persian Gulf Nations are Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, and the United Arab Emirates. Production from the Neutral Zone between Kuwait and Saudi Arabia is included in "Per-

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.

**Table 11.1a World Crude Oil Production: OPEC Members**  
(Thousand Barrels per Day)

	Algeria	Angola	Ecuador	Iran	Iraq	Kuwait <sup>a</sup>	Libya	Nigeria	Qatar	Saudi Arabia <sup>a</sup>	United Arab Emirates	Venezuela	Total OPEC <sup>b</sup>
1973 Average	1,097	162	209	5,861	2,018	3,020	2,175	2,054	570	7,596	1,533	3,366	29,661
1975 Average	983	165	161	5,350	2,262	2,084	1,480	1,783	438	7,075	1,664	2,346	25,790
1980 Average	1,106	150	204	1,662	2,514	1,656	1,787	2,055	472	9,900	1,709	2,168	25,383
1985 Average	1,036	231	281	2,250	1,433	1,023	1,059	1,495	301	3,388	1,193	1,677	15,367
1990 Average	1,180	475	285	3,088	2,040	1,175	1,375	1,810	406	6,410	2,117	2,137	22,498
1995 Average	1,162	646	392	3,643	560	2,057	1,390	1,993	442	8,231	2,233	2,750	25,500
1996 Average	1,227	709	396	3,686	579	2,062	1,401	2,001	510	8,218	2,278	2,938	26,003
1997 Average	1,259	714	388	3,664	1,155	2,007	1,446	2,132	550	8,362	2,316	3,280	27,274
1998 Average	1,226	735	375	3,634	2,150	2,085	1,390	2,153	696	8,389	2,345	3,167	28,346
1999 Average	1,177	745	373	3,557	2,508	1,898	1,319	2,130	665	7,833	2,169	2,826	27,199
2000 Average	1,214	746	395	3,696	2,571	2,079	1,410	2,165	737	8,404	2,368	3,155	28,940
2001 Average	1,265	742	412	3,724	2,390	1,998	1,367	2,256	714	8,031	2,205	3,010	28,114
2002 Average	1,349	896	393	3,444	2,023	1,894	1,319	2,118	679	7,634	2,082	2,604	26,435
2003 Average	1,516	903	411	3,743	1,308	2,136	1,421	2,275	715	8,775	2,348	2,335	27,885
2004 Average	1,582	1,052	528	4,001	2,011	2,376	1,515	2,329	783	9,101	2,478	2,557	30,313
2005 Average	1,692	1,250	532	4,139	1,878	2,529	1,633	2,627	835	9,550	2,535	2,565	31,766
2006 Average	1,699	1,413	536	4,028	1,996	2,535	1,681	2,440	850	9,152	2,636	2,511	31,476
2007 Average	1,708	1,744	511	3,912	2,086	2,464	1,702	2,350	851	8,722	2,603	2,433	31,085
2008 Average	1,705	1,981	505	4,050	2,375	2,586	1,736	2,165	924	9,261	2,681	2,394	32,363
2009 Average	1,585	1,907	486	4,037	2,391	2,350	1,650	2,208	927	8,250	2,413	2,239	30,442
<b>2010</b> January	1,540	2,040	464	4,088	2,475	2,250	1,650	2,480	969	8,240	2,414	2,090	30,699
February	1,540	2,060	470	4,100	2,475	2,250	1,650	2,420	1,036	8,440	2,414	2,140	30,995
March	1,540	2,070	478	4,112	2,375	2,250	1,650	2,430	1,055	8,540	2,414	2,090	31,004
April	1,540	2,070	480	4,120	2,375	2,250	1,650	2,360	1,072	8,740	2,414	2,110	31,181
May	1,540	2,030	478	4,120	2,375	2,250	1,650	2,310	1,091	8,740	2,415	2,140	31,138
June	1,540	1,980	491	4,127	2,425	2,250	1,650	2,410	1,113	9,240	2,415	2,140	31,780
July	1,540	1,970	492	4,033	2,325	2,350	1,650	2,410	1,136	9,340	2,415	2,140	31,801
August	1,540	1,890	485	4,040	2,325	2,350	1,650	2,510	1,164	9,340	2,415	2,140	31,849
September	1,540	1,790	490	4,047	2,375	2,350	1,650	2,550	1,193	9,340	2,415	2,140	31,880
October	1,540	1,790	497	4,053	2,375	2,350	1,650	2,580	1,216	8,840	2,415	2,140	31,446
November	1,540	1,790	508	4,060	2,375	2,350	1,650	2,510	1,235	9,040	2,415	2,240	31,713
December	1,540	1,790	499	4,068	2,525	2,350	1,650	2,490	1,235	8,940	2,415	2,240	31,742
<b>Average</b>	<b>1,540</b>	<b>1,939</b>	<b>486</b>	<b>4,080</b>	<b>2,399</b>	<b>2,300</b>	<b>1,650</b>	<b>2,455</b>	<b>1,127</b>	<b>8,900</b>	<b>2,415</b>	<b>2,146</b>	<b>31,437</b>
<b>2011</b> January	1,540	1,790	500	4,076	2,625	2,350	1,650	2,616	1,280	9,140	2,520	2,240	32,327
February	1,540	1,790	509	4,084	2,525	2,350	1,340	2,604	1,280	9,140	2,520	2,240	31,922
March	1,540	1,790	501	4,092	2,525	2,450	300	2,460	1,290	8,940	2,620	2,240	30,748
April	1,540	1,740	504	4,100	2,525	2,550	200	2,520	1,300	8,940	2,720	2,240	30,879
May	1,540	1,640	497	4,100	2,575	2,550	200	2,604	1,300	8,940	2,720	2,240	30,906
June	1,540	1,690	495	4,100	2,575	2,550	100	2,604	1,300	9,640	2,720	2,240	31,554
July	1,540	1,740	492	4,050	2,625	2,550	100	2,604	1,300	9,840	2,720	2,240	31,801
August	1,540	1,790	495	4,050	2,625	2,600	0	2,640	1,300	9,940	2,720	2,240	31,940
September	1,540	1,840	496	4,050	2,725	2,600	100	2,640	1,300	9,740	2,720	2,240	31,991
October	1,540	1,790	502	4,000	2,725	2,600	300	2,400	1,300	9,540	2,720	2,240	31,657
November	1,540	1,940	504	4,000	2,725	2,600	550	2,520	1,300	9,840	2,720	2,240	32,479
December	1,540	1,890	501	3,950	2,725	2,600	800	2,400	1,300	9,840	2,720	2,240	32,506
<b>Average</b>	<b>1,540</b>	<b>1,786</b>	<b>500</b>	<b>4,054</b>	<b>2,626</b>	<b>2,530</b>	<b>465</b>	<b>2,550</b>	<b>1,296</b>	<b>9,458</b>	<b>2,679</b>	<b>2,240</b>	<b>31,724</b>
<b>2012</b> January	1,550	1,890	504	3,850	2,675	2,650	1,000	2,520	1,300	9,840	2,720	2,240	32,739
February	1,550	1,940	503	3,800	2,575	2,650	1,200	2,580	1,300	10,040	2,720	2,240	33,098
March	1,550	1,790	499	3,750	2,725	R 2,640	1,350	2,520	1,200	R 10,030	2,820	2,240	R 33,114
April	1,550	1,890	500	3,600	2,965	R 2,640	1,400	2,640	1,190	R 9,930	2,820	2,240	R 33,365
May	1,550	1,840	498	3,525	2,925	R 2,640	1,400	2,580	1,200	R 9,730	2,820	2,240	R 32,948
June	R 1,544	1,790	502	3,350	2,975	R 2,630	1,400	2,580	1,200	R 10,020	2,820	2,240	R 33,051
July	R 1,546	1,740	508	3,200	3,175	R 2,625	1,400	2,580	1,200	R 10,015	2,820	2,240	R 32,949
August	R 1,548	1,840	512	3,100	3,075	R 2,625	1,450	2,640	1,200	R 10,015	2,820	2,240	R 33,165
September	1,550	1,740	506	3,150	3,275	R 2,610	1,500	2,490	1,200	R 9,800	2,820	2,240	R 32,881
October	R 1,482	1,790	503	3,000	3,075	R 2,610	1,500	2,390	1,200	R 9,800	2,820	2,240	R 32,410
November	1,483	1,770	504	3,000	3,225	2,650	1,450	2,340	1,200	9,540	2,820	2,240	32,222
<b>11-Month Average</b>	<b>1,537</b>	<b>1,820</b>	<b>504</b>	<b>3,392</b>	<b>2,970</b>	<b>2,634</b>	<b>1,368</b>	<b>2,533</b>	<b>1,217</b>	<b>9,887</b>	<b>2,802</b>	<b>2,240</b>	<b>32,903</b>
<b>2011 11-Month Average</b>	<b>1,540</b>	<b>1,776</b>	<b>499</b>	<b>4,064</b>	<b>2,616</b>	<b>2,524</b>	<b>434</b>	<b>2,564</b>	<b>1,296</b>	<b>9,423</b>	<b>2,675</b>	<b>2,240</b>	<b>31,652</b>
<b>2010 11-Month Average</b>	<b>1,540</b>	<b>1,952</b>	<b>485</b>	<b>4,082</b>	<b>2,388</b>	<b>2,296</b>	<b>1,650</b>	<b>2,452</b>	<b>1,117</b>	<b>8,896</b>	<b>2,415</b>	<b>2,137</b>	<b>31,409</b>

<sup>a</sup> Except for the period from August 1990 through May 1991, includes about one-half of the production in the Kuwait-Saudi Arabia Neutral Zone. Kuwaiti Neutral Zone output was discontinued following Iraq's invasion of Kuwait on August 2, 1990, but was resumed in June 1991. In November 2012, Neutral Zone production by both Kuwait and Saudi Arabia totaled about 520 thousand barrels per day. Data for Saudi Arabia include approximately 150 thousand barrels per day from the Abu Safah field produced on behalf of Bahrain.

<sup>b</sup> See "Organization of the Petroleum Exporting Countries (OPEC)" in Glossary. On Tables 11.1a and 11.1b, countries are classified as "OPEC" or "Non-OPEC" in all years based on their status in the most current year. For example, Ecuador rejoined OPEC in 2007, and is thus included in "Total OPEC"

for all years; and Indonesia left OPEC at the end of 2008, and is thus included in "Total Non-OPEC" for all years.

R=Revised.

Notes: • Data are for crude oil and lease condensate; they exclude natural gas plant liquids. • Monthly data are often preliminary figures and may not average to the annual totals because of rounding or because updates to the preliminary monthly data are not available.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#international> for all available data beginning in 1973.

Sources: See end of section.



**Table 11.1b World Crude Oil Production: Persian Gulf Nations, Non-OPEC, and World** (Thousand Barrels per Day)

	Persian Gulf Nations <sup>b</sup>	Selected Non-OPEC <sup>a</sup> Producers								Total Non-OPEC <sup>a</sup>	World	
		Canada	China	Egypt	Mexico	Norway	Former U.S.S.R.	Russia	United Kingdom			United States
1973 Average	20,668	1,798	1,090	165	465	32	8,324	NA	2	9,208	26,018	55,679
1975 Average	18,934	1,430	1,490	235	705	189	9,523	NA	12	8,375	27,039	52,828
1980 Average	17,961	1,435	2,114	595	1,936	486	11,706	NA	1,622	8,597	34,175	59,558
1985 Average	9,630	1,471	2,505	887	2,745	773	11,585	NA	2,530	8,971	38,598	53,965
1990 Average	15,278	1,553	2,774	873	2,553	1,630	10,975	NA	1,820	7,355	37,999	60,497
1995 Average	17,208	1,805	2,990	920	2,711	2,766	--	5,995	2,489	6,560	36,934	62,434
1996 Average	17,367	1,837	3,131	922	2,944	3,091	--	5,850	2,568	6,465	37,815	63,818
1997 Average	18,095	1,922	3,200	856	3,104	3,142	--	5,920	2,518	6,452	38,532	65,806
1998 Average	19,337	1,981	3,198	834	3,160	3,011	--	5,854	2,616	6,252	38,685	67,032
1999 Average	18,667	1,907	3,195	852	2,998	3,019	--	6,079	2,684	5,881	38,768	65,967
2000 Average	19,892	1,977	3,249	768	3,104	3,222	--	6,479	2,275	5,822	39,583	68,522
2001 Average	19,098	2,029	3,300	720	3,218	3,226	--	6,917	2,282	5,801	40,003	68,116
2002 Average	17,794	2,171	3,390	715	3,263	3,131	--	7,408	2,292	5,744	40,825	67,260
2003 Average	19,063	2,306	3,409	713	3,459	3,042	--	8,132	2,093	5,644	41,478	69,363
2004 Average	20,787	2,398	3,485	673	3,476	2,954	--	8,805	1,845	5,435	42,149	72,462
2005 Average	21,501	2,369	3,609	623	3,423	2,698	--	9,043	1,649	5,186	41,878	73,644
2006 Average	21,232	2,525	3,673	535	3,345	2,491	--	9,247	1,490	5,089	41,793	73,269
2007 Average	20,672	2,628	3,729	530	3,143	2,270	--	9,437	1,498	5,077	41,730	72,815
2008 Average	21,913	2,579	3,790	566	2,839	2,182	--	9,357	1,391	5,000	41,265	73,629
2009 Average	20,402	2,579	3,796	587	2,646	2,067	--	9,495	1,328	5,353	41,785	72,227
<b>2010</b> January	20,471	2,499	3,971	579	2,660	2,060	--	9,615	1,379	5,399	42,159	72,858
February	20,750	2,714	3,940	578	2,655	2,038	--	9,648	1,274	5,546	42,558	73,552
March	20,781	2,621	3,973	577	2,641	1,983	--	9,683	1,429	5,513	42,753	73,757
April	21,007	2,693	3,953	576	2,639	1,967	--	9,646	1,378	5,377	42,552	73,733
May	21,025	2,742	4,049	576	2,639	1,921	--	9,691	1,297	5,398	42,624	73,762
June	21,604	2,770	4,105	575	2,592	1,611	--	9,727	1,076	5,384	42,090	73,870
July	21,634	2,762	4,060	575	2,618	1,864	--	9,710	1,055	5,313	42,338	74,139
August	21,669	2,779	4,104	574	2,604	1,648	--	9,623	1,070	5,445	42,215	74,063
September	21,755	2,646	4,187	574	2,615	1,637	--	9,725	1,194	5,608	42,491	74,371
October	21,284	2,688	4,186	573	2,615	1,952	--	9,816	1,195	5,596	42,795	74,242
November	21,510	2,937	4,281	573	2,556	1,868	--	9,723	1,248	5,558	43,138	74,851
December	21,568	2,929	4,126	572	2,620	1,886	--	9,719	1,207	5,614	43,084	74,827
<b>Average</b>	<b>21,257</b>	<b>2,732</b>	<b>4,078</b>	<b>575</b>	<b>2,621</b>	<b>1,869</b>	--	<b>9,694</b>	<b>1,233</b>	<b>5,479</b>	<b>42,567</b>	<b>74,004</b>
<b>2011</b> January	22,026	2,869	4,238	572	2,632	1,905	--	9,769	1,316	5,501	43,007	75,334
February	21,934	2,906	4,188	571	2,602	1,861	--	9,773	1,085	5,413	42,620	74,541
March	21,952	2,854	4,160	570	2,620	1,808	--	9,753	1,073	5,586	42,683	73,431
April	22,170	2,848	4,127	569	2,621	1,874	--	9,795	1,164	5,535	42,484	73,362
May	22,220	2,564	4,106	568	2,603	1,607	--	9,818	1,017	5,595	41,685	72,591
June	22,920	2,664	4,017	567	2,592	1,660	--	9,770	1,018	5,561	41,759	73,313
July	23,120	2,916	3,956	566	2,580	1,737	--	9,837	946	5,415	41,837	73,637
August	23,270	3,067	4,027	565	2,598	1,714	--	9,832	767	5,638	42,254	74,194
September	23,170	2,987	3,964	564	2,534	1,636	--	9,557	890	5,592	41,663	73,654
October	22,920	3,030	3,926	563	2,598	1,756	--	9,902	998	5,882	42,538	74,194
November	23,220	3,021	4,006	562	2,573	1,764	--	9,595	1,039	6,014	42,662	75,141
December	23,170	3,121	3,998	561	2,601	1,713	--	9,869	1,010	6,022	42,961	75,467
<b>Average</b>	<b>22,678</b>	<b>2,904</b>	<b>4,059</b>	<b>566</b>	<b>2,596</b>	<b>1,752</b>	--	<b>9,774</b>	<b>1,026</b>	<b>5,648</b>	<b>42,346</b>	<b>74,070</b>
<b>2012</b> January	23,070	3,105	4,089	560	2,562	1,761	--	9,894	999	6,135	42,963	75,701
February	23,120	3,237	4,109	560	2,588	1,745	--	9,889	1,016	6,215	42,828	75,926
March	23,200	3,042	4,066	560	2,596	1,715	--	9,891	968	6,278	42,574	75,689
April	23,180	3,145	4,111	560	2,586	1,720	--	9,861	981	6,280	42,604	75,969
May	22,875	3,029	4,105	560	2,587	1,699	--	9,882	893	6,301	42,355	75,303
June	23,030	2,994	4,015	556	2,584	1,583	--	9,861	949	6,228	42,029	75,080
July	22,970	3,097	4,010	554	2,568	1,553	--	9,882	954	6,351	42,267	75,216
August	22,970	3,058	4,128	554	2,596	1,570	--	9,907	742	6,267	42,040	75,205
September	22,890	3,014	4,242	553	2,593	1,309	--	9,941	609	6,528	41,959	74,841
October	22,540	3,160	4,217	553	2,581	1,549	--	9,984	688	6,831	42,934	75,344
November	22,470	3,243	4,232	552	2,618	1,517	--	10,048	865	6,893	43,435	75,658
<b>11-Month Average</b>	<b>22,937</b>	<b>3,101</b>	<b>4,120</b>	<b>557</b>	<b>2,587</b>	<b>1,611</b>	--	<b>9,913</b>	<b>878</b>	<b>6,391</b>	<b>42,543</b>	<b>75,446</b>
<b>2011 11-Month Average</b>	<b>22,633</b>	<b>2,884</b>	<b>4,064</b>	<b>567</b>	<b>2,596</b>	<b>1,756</b>	--	<b>9,765</b>	<b>1,028</b>	<b>5,613</b>	<b>42,289</b>	<b>73,940</b>
<b>2010 11-Month Average</b>	<b>21,228</b>	<b>2,713</b>	<b>4,074</b>	<b>575</b>	<b>2,621</b>	<b>1,868</b>	--	<b>9,692</b>	<b>1,236</b>	<b>5,466</b>	<b>42,518</b>	<b>73,927</b>

<sup>a</sup> See "Organization of the Petroleum Exporting Countries (OPEC)" in Glossary. On Tables 11.1a and 11.1b, countries are classified as "OPEC" or "Non-OPEC" in all years based on their status in the most current year. For example, Ecuador rejoined OPEC in 2007, and is thus included in "Total OPEC" for all years; and Indonesia left OPEC at the end of 2008, and is thus included in "Total Non-OPEC" for all years.

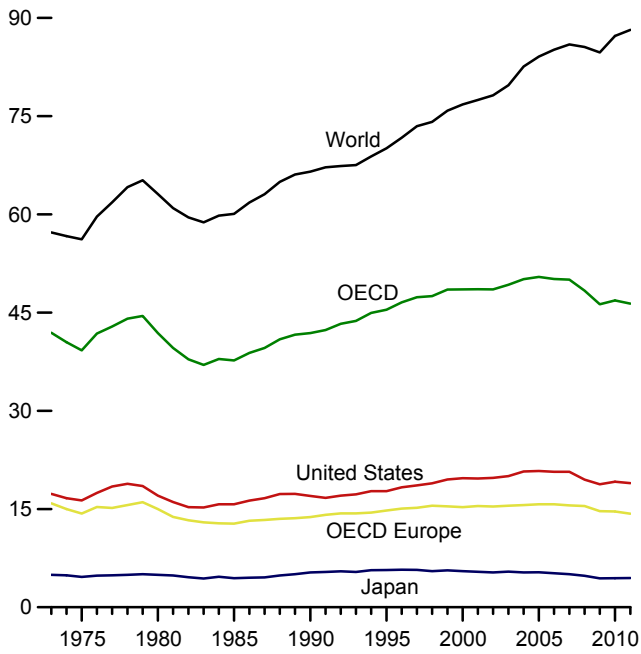
<sup>b</sup> Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, United Arab Emirates, and the Neutral Zone (between Kuwait and Saudi Arabia). R=Revised. NA=Not available. --=Not applicable. E=Estimate.

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

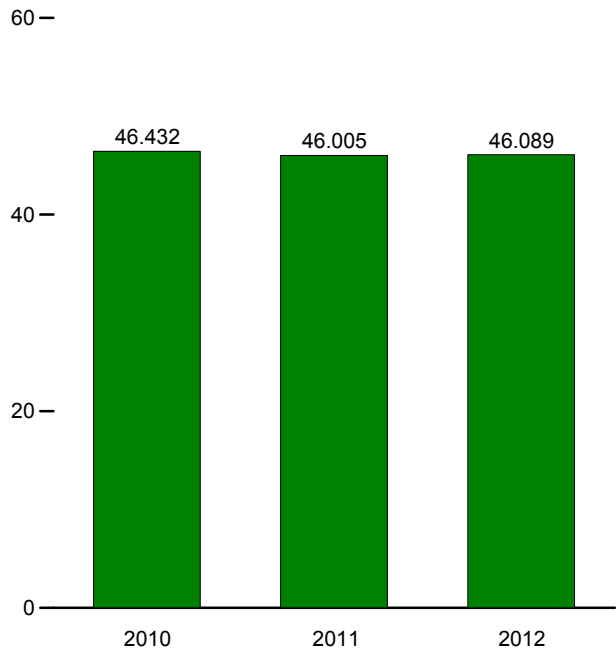
Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#international> for all available data beginning in 1973. Sources: See end of section.

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

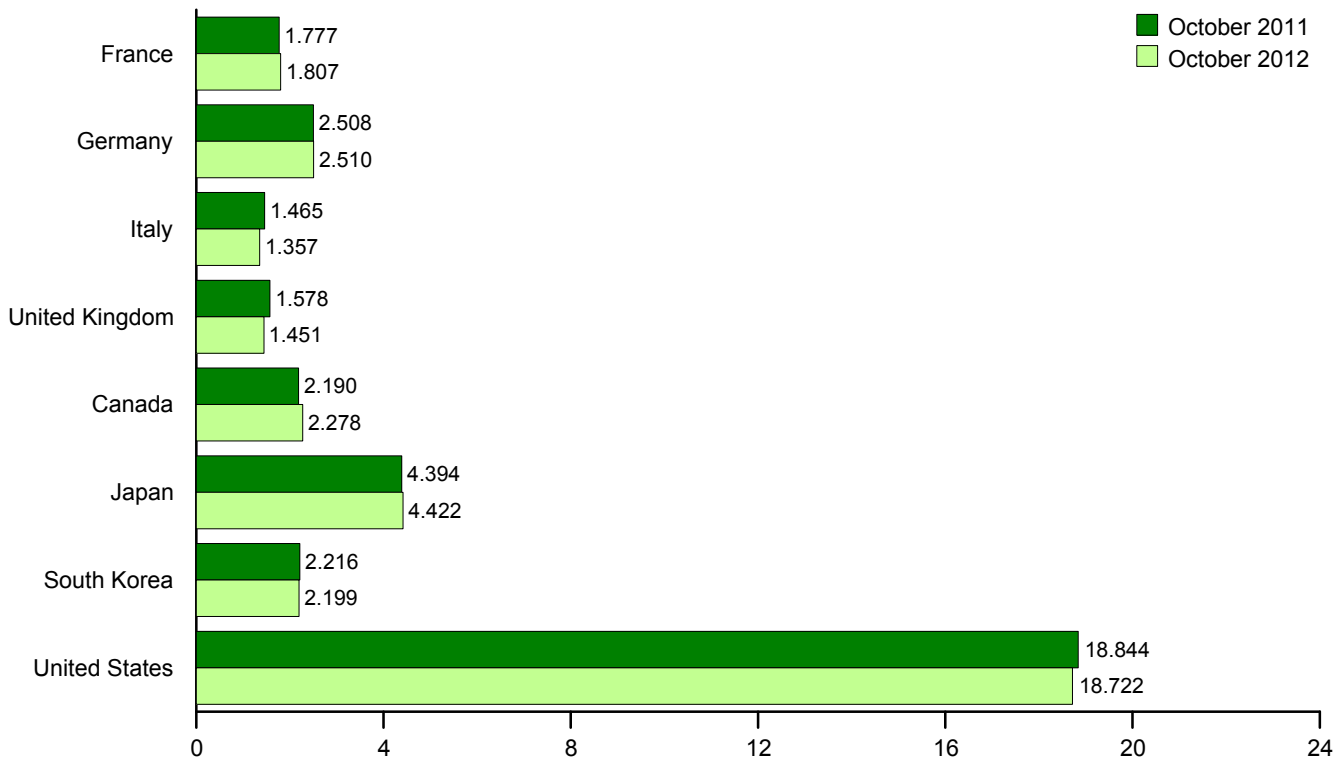
Overview, 1973-2011



OECD Total, October



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.

**Table 11.2 Petroleum Consumption in OECD Countries**  
(Thousand Barrels per Day)

	France	Germany <sup>a</sup>	Italy	United Kingdom	OECD Europe <sup>b</sup>	Canada	Japan	South Korea	United States	Other OECD <sup>c</sup>	OECD <sup>d</sup>	World
1973 Average	2,601	3,324	2,068	2,341	15,879	1,729	4,949	281	17,308	1,768	41,913	57,237
1975 Average	2,252	2,957	1,855	1,911	14,314	1,779	4,621	311	16,322	1,885	39,232	56,198
1980 Average	2,256	3,082	1,934	1,725	14,995	1,873	4,960	537	17,056	2,449	41,870	63,113
1985 Average	1,753	2,651	1,705	1,617	12,772	1,514	4,436	552	15,726	2,699	37,699	60,083
1990 Average	1,826	2,682	1,868	1,776	13,762	1,722	5,315	1,048	16,988	3,040	41,875	66,533
1995 Average	1,920	2,882	1,942	1,816	14,762	1,799	5,693	2,008	17,725	3,452	45,439	70,099
1996 Average	1,949	2,922	1,920	1,852	15,055	1,853	5,739	2,101	18,309	3,509	46,566	71,714
1997 Average	1,969	2,917	1,934	1,810	15,195	1,940	5,702	2,255	18,620	3,629	47,342	73,464
1998 Average	2,043	2,923	1,943	1,792	15,500	1,931	5,507	1,917	18,917	3,757	47,529	74,117
1999 Average	2,031	2,836	1,891	1,811	15,409	2,016	5,642	2,084	19,519	3,844	48,514	75,833
2000 Average	2,000	2,767	1,854	1,765	15,276	2,014	5,515	2,135	19,701	3,902	48,543	76,788
2001 Average	2,054	2,807	1,832	1,747	15,447	2,043	5,412	2,132	19,649	3,892	48,575	77,481
2002 Average	1,985	2,710	1,870	1,739	15,386	2,065	5,319	2,149	19,761	3,873	48,553	78,175
2003 Average	2,001	2,662	1,860	1,759	15,494	2,191	5,428	2,175	20,034	3,918	49,241	79,720
2004 Average	2,009	2,649	1,829	1,785	15,598	2,282	5,319	2,155	20,731	4,015	50,100	82,583
2005 Average	1,991	2,621	1,781	1,820	15,716	2,315	5,328	2,191	20,802	4,093	50,445	84,089
2006 Average	1,991	2,639	1,777	1,806	15,723	2,229	5,197	2,180	20,687	4,128	50,144	85,156
2007 Average	1,979	2,416	1,729	1,753	15,546	2,283	5,037	2,241	20,680	4,250	50,037	85,944
2008 Average	1,945	2,542	1,667	1,727	15,457	2,225	4,795	2,142	19,498	4,237	48,355	85,554
2009 Average	1,868	2,453	1,544	1,641	14,667	2,153	4,406	2,188	18,771	4,095	46,280	84,741
<b>2010</b> January	1,756	2,161	1,369	1,586	13,543	2,128	4,779	2,361	18,652	3,840	45,302	NA
February	1,955	2,454	1,535	1,688	14,798	2,256	5,002	2,383	18,850	4,217	47,506	NA
March	1,913	2,505	1,563	1,683	14,874	2,149	4,738	2,253	19,099	4,030	47,144	NA
April	1,845	2,260	1,520	1,646	14,274	2,180	4,327	2,249	19,044	4,120	46,193	NA
May	1,693	2,354	1,451	1,615	13,921	2,202	3,841	2,170	18,866	4,047	45,047	NA
June	1,836	2,510	1,578	1,599	14,757	2,346	3,967	2,177	19,537	4,200	46,984	NA
July	1,829	2,571	1,658	1,631	14,934	2,205	4,170	2,111	19,319	4,128	46,866	NA
August	1,741	2,547	1,506	1,643	14,535	2,378	4,388	2,221	19,662	4,007	47,191	NA
September	1,945	2,747	1,624	1,640	15,339	2,325	4,441	2,192	19,438	4,030	47,765	NA
October	1,753	2,622	1,532	1,667	14,942	2,249	4,035	2,225	18,974	4,007	46,432	NA
November	1,788	2,585	1,567	1,647	15,030	2,317	4,595	2,392	18,977	4,110	47,420	NA
December	1,939	2,324	1,630	1,526	14,621	2,360	5,005	2,495	19,722	4,204	48,407	NA
<b>Average</b>	<b>1,831</b>	<b>2,470</b>	<b>1,544</b>	<b>1,630</b>	<b>14,627</b>	<b>2,258</b>	<b>4,437</b>	<b>2,268</b>	<b>19,180</b>	<b>4,077</b>	<b>46,847</b>	<b>87,251</b>
<b>2011</b> January	1,773	2,230	1,352	1,600	13,646	2,255	4,899	2,429	18,993	3,821	46,043	NA
February	1,916	2,433	1,554	1,652	14,806	2,315	5,067	2,349	18,873	4,261	47,671	NA
March	1,789	2,393	1,445	1,635	14,352	2,390	4,551	2,295	19,329	4,270	47,187	NA
April	1,747	2,258	1,461	1,621	13,940	2,144	3,994	2,011	18,650	4,079	44,818	NA
May	1,734	2,403	1,425	1,555	14,014	2,184	3,787	2,022	18,479	4,092	44,578	NA
June	1,786	2,270	1,510	1,687	14,440	2,340	3,943	2,112	19,253	4,218	46,306	NA
July	1,799	2,409	1,477	1,562	14,391	2,321	4,226	2,188	18,778	4,166	46,070	NA
August	1,804	2,638	1,400	1,617	14,655	2,456	4,425	2,212	19,415	4,230	47,393	NA
September	1,919	2,551	1,541	1,671	14,969	2,302	4,278	2,241	18,892	4,216	46,897	NA
October	1,777	2,508	1,465	1,578	14,345	2,190	4,394	2,216	18,844	4,016	46,005	NA
November	1,730	2,447	1,405	1,595	14,165	2,276	4,602	2,252	19,080	4,282	46,657	NA
December	1,737	2,262	1,423	1,531	13,753	2,298	5,429	2,436	18,803	4,317	47,035	NA
<b>Average</b>	<b>1,792</b>	<b>2,400</b>	<b>1,454</b>	<b>1,608</b>	<b>14,284</b>	<b>2,289</b>	<b>4,464</b>	<b>2,230</b>	<b>18,949</b>	<b>4,163</b>	<b>46,380</b>	<b>88,174</b>
<b>2012</b> January	1,745	2,133	1,263	1,440	13,079	2,167	5,161	2,366	18,280	4,110	45,162	NA
February	1,950	2,483	1,306	1,565	14,442	2,163	5,550	2,410	18,760	4,287	47,611	NA
March	1,725	2,219	1,316	1,614	13,686	2,384	5,156	2,153	18,213	4,342	45,934	NA
April	1,686	2,231	1,293	1,600	13,546	2,299	4,390	2,099	18,330	4,133	44,796	NA
May	1,671	2,305	1,304	1,517	13,603	2,364	4,367	2,181	18,707	4,207	45,430	NA
June	1,780	2,466	1,367	1,526	14,097	2,301	4,129	2,304	18,915	4,188	45,934	NA
July	1,800	2,425	1,380	1,507	13,978	2,368	4,372	2,196	18,601	4,181	45,696	NA
August	1,663	2,285	1,328	1,475	13,637	2,495	4,629	2,235	19,226	4,332	46,555	NA
September	1,726	2,339	1,315	1,525	13,765	2,418	4,443	2,265	18,173	4,056	45,120	NA
October	1,807	2,510	1,357	1,451	14,142	2,278	4,422	2,199	18,722	4,325	46,089	NA
<b>10-Month Average</b>	<b>1,754</b>	<b>2,339</b>	<b>1,323</b>	<b>1,522</b>	<b>13,793</b>	<b>2,325</b>	<b>4,660</b>	<b>2,240</b>	<b>18,593</b>	<b>4,216</b>	<b>45,826</b>	<b>NA</b>
<b>2011 10-Month Average</b>	<b>1,803</b>	<b>2,410</b>	<b>1,462</b>	<b>1,617</b>	<b>14,350</b>	<b>2,290</b>	<b>4,352</b>	<b>2,207</b>	<b>18,952</b>	<b>4,135</b>	<b>46,286</b>	<b>NA</b>
<b>2010 10-Month Average</b>	<b>1,825</b>	<b>2,473</b>	<b>1,533</b>	<b>1,639</b>	<b>14,588</b>	<b>2,241</b>	<b>4,364</b>	<b>2,233</b>	<b>19,145</b>	<b>4,061</b>	<b>46,631</b>	<b>NA</b>

<sup>a</sup> Data are for unified Germany, i.e., the former East Germany and West Germany.

<sup>b</sup> "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.

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

<sup>d</sup> The Organization for Economic Cooperation and Development (OECD) consists of "OECD Europe," Canada, Japan, South Korea, the United States, and "Other OECD."

R=Revised. NA=Not available.

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

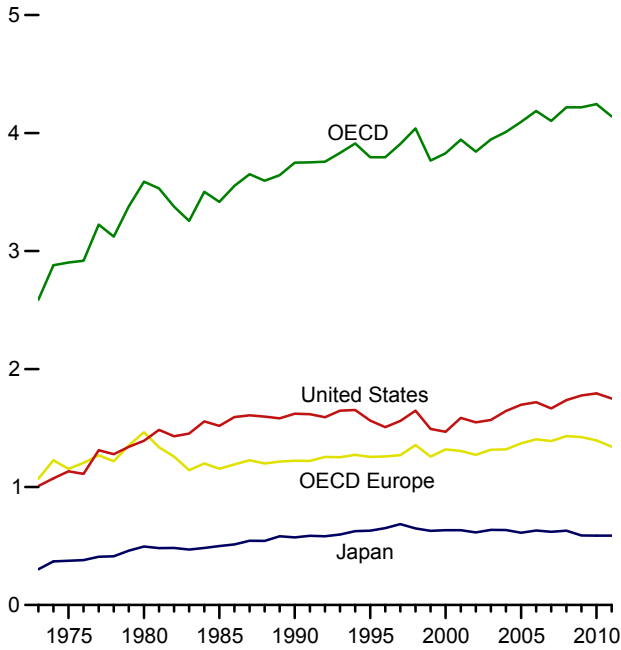
rounding. • U.S. geographic coverage is the 50 States and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#international> for all available data beginning in 1973.

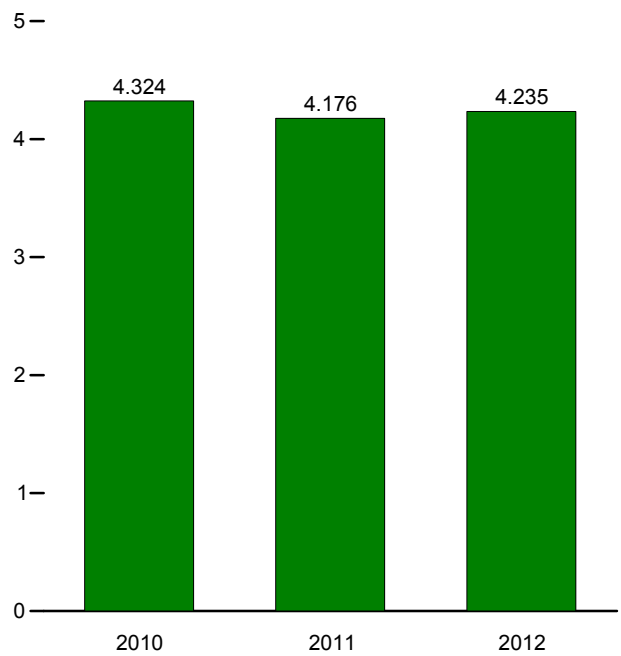
Sources: • **United States:** Table 3.1. • **Chile, East Germany, Former Czechoslovakia, Hungary, Mexico, Poland, South Korea, Non-OECD Countries, U.S. Territories, and World: 1973-1979**—U.S. Energy Information Administration (EIA), International Energy Database. • **Countries Other Than United States: 1980-2008**—EIA, International Energy Statistics (IES). • **OECD Countries, and U.S. Territories: 2009 forward**—EIA, IES. • **World: 2009 forward**—EIA, *Short Term Energy Outlook*, February 2013, Table 3a. • **All Other Data**—International Energy Agency (IEA), *Quarterly Oil Statistics and Energy Balances in OECD Countries*, various issues.

**Figure 11.3 Petroleum Stocks in OECD Countries**  
(Billion Barrels)

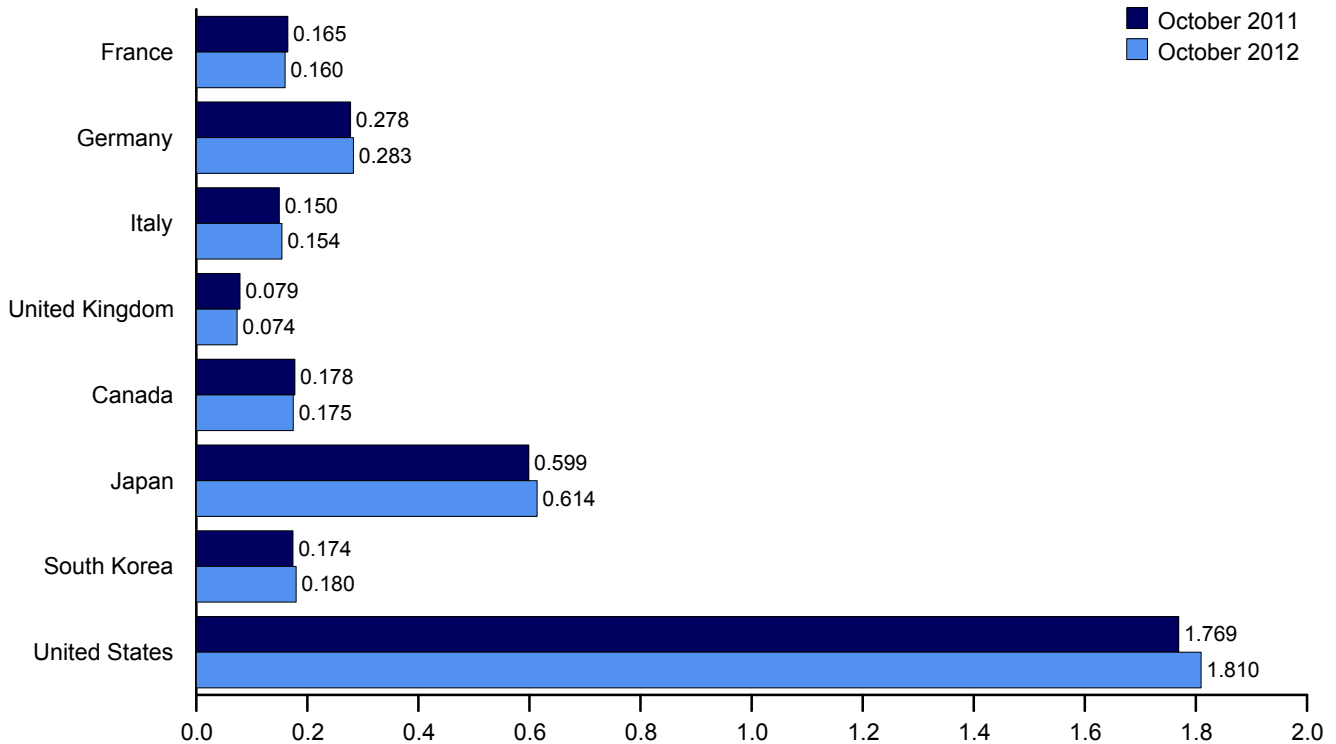
Overview, End of Year, 1973-2011



OECD Stocks, End of Month, October



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 <sup>a</sup>	Italy	United Kingdom	OECD Europe <sup>b</sup>	Canada	Japan	South Korea	United States	Other OECD <sup>c</sup>	OECD <sup>d</sup>
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	R 156	104	R 1,273	155	615	140	1,548	112	R 3,843
2003 Year	179	273	153	100	1,316	165	636	155	1,568	105	3,945
2004 Year	177	267	R 154	101	R 1,319	154	635	149	1,645	108	R 4,010
2005 Year	185	283	R 151	95	R 1,371	168	612	135	1,698	112	R 4,095
2006 Year	182	283	R 153	103	R 1,404	169	631	152	1,720	113	R 4,187
2007 Year	180	275	R 152	R 92	R 1,389	163	621	143	1,665	121	R 4,103
2008 Year	179	279	R 148	R 93	R 1,431	162	630	135	1,737	124	R 4,218
2009 Year	175	284	R 146	R 89	R 1,424	157	589	155	1,776	117	R 4,218
<b>2010</b> January	182	295	R 147	R 91	R 1,464	160	593	162	1,786	122	R 4,287
February	175	290	R 153	R 93	R 1,447	161	587	163	1,785	128	R 4,271
March	172	289	R 149	R 88	R 1,428	167	581	164	1,787	127	R 4,255
April	172	284	R 155	R 90	R 1,439	168	590	166	1,810	123	R 4,296
May	173	286	R 150	R 94	R 1,446	164	599	166	1,830	120	R 4,326
June	170	280	R 153	R 90	R 1,429	166	597	167	1,842	131	R 4,332
July	168	282	R 146	R 90	R 1,412	173	598	170	1,855	127	R 4,335
August	171	289	R 153	R 87	R 1,429	182	597	169	1,862	127	R 4,365
September	163	286	R 146	R 89	R 1,389	180	582	174	1,861	123	R 4,308
October	161	285	R 152	R 88	R 1,401	183	599	170	1,847	125	R 4,324
November	170	287	R 148	R 86	R 1,393	184	604	171	1,827	121	R 4,301
December	168	287	R 153	R 83	R 1,395	184	588	165	1,794	119	R 4,245
<b>2011</b> January	173	291	R 160	R 90	R 1,435	174	596	168	1,809	117	R 4,299
February	170	288	R 151	R 89	R 1,405	169	591	162	1,780	121	R 4,229
March	167	286	R 152	R 87	R 1,394	172	575	170	1,776	116	R 4,203
April	163	291	R 152	R 89	R 1,383	179	601	173	1,779	123	R 4,237
May	168	288	R 149	R 85	R 1,382	177	599	170	1,807	122	R 4,257
June	167	286	R 151	R 79	R 1,376	177	593	175	1,809	120	R 4,250
July	164	290	R 151	R 81	R 1,366	177	599	173	1,816	122	R 4,253
August	162	283	R 152	R 83	R 1,370	176	598	171	1,796	123	R 4,233
September	160	277	R 150	R 78	R 1,349	176	601	174	1,781	119	R 4,199
October	165	278	R 150	R 79	R 1,338	178	599	174	1,769	118	R 4,176
November	164	277	R 152	R 86	R 1,354	179	603	170	1,770	116	R 4,193
December	165	279	R 148	R 80	R 1,342	178	589	167	1,750	116	R 4,142
<b>2012</b> January	166	284	R 152	R 84	R 1,366	178	594	164	1,772	119	R 4,192
February	165	283	R 151	R 84	R 1,363	180	583	171	1,765	110	R 4,173
March	165	281	R 152	R 82	R 1,374	175	580	164	1,778	113	R 4,183
April	163	280	R 151	R 85	R 1,365	176	592	174	1,777	115	R 4,198
May	162	281	R 150	R 82	R 1,347	172	597	183	1,794	117	R 4,209
June	164	280	R 148	R 82	R 1,350	171	601	177	1,808	112	R 4,220
July	163	286	R 146	R 80	R 1,361	R 173	608	181	1,809	117	R 4,249
August	168	285	R 152	R 82	R 1,379	R 177	603	179	1,801	115	R 4,254
September	164	284	R 157	R 76	R 1,361	R 177	606	184	1,818	R 118	R 4,263
October	160	283	154	74	1,338	175	614	180	1,810	119	4,235

<sup>a</sup> 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.

<sup>b</sup> "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.

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

<sup>d</sup> 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> for all available data beginning in 1973.

Sources: • **United States:** Table 3.4. • **U.S. Territories:** 1983 forward—U.S. Energy Information Administration, International Energy Database. • **All Other Data:** 1973-1982—International Energy Agency (IEA), *Quarterly Oil Statistics and Energy Balances*, various issues. 1983—IEA, Monthly Oil and Gas Statistics Database. 1984 forward—IEA, Monthly Oil Data Service, January 18, 2013.

# 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, February 2013.

### 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.

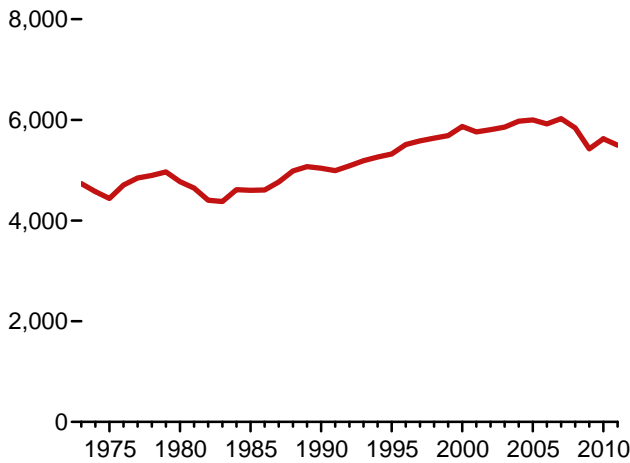
1994 forward: EIA, International Energy Database, February 2013.

## **12. Environment**

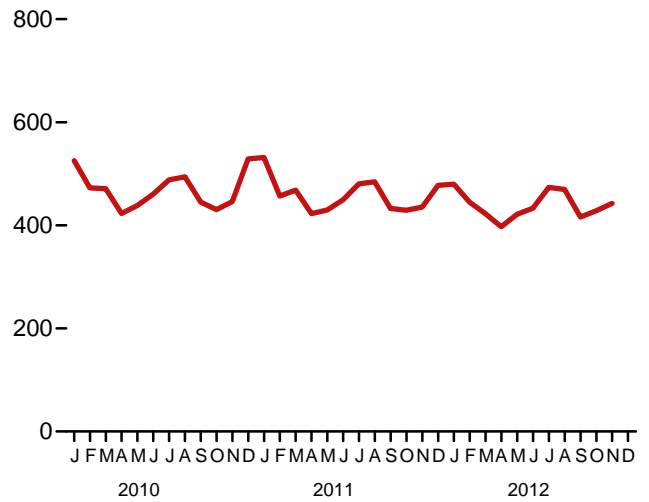
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**Figure 12.1 Carbon Dioxide Emissions From Energy Consumption by Source**  
(Million Metric Tons of Carbon Dioxide)

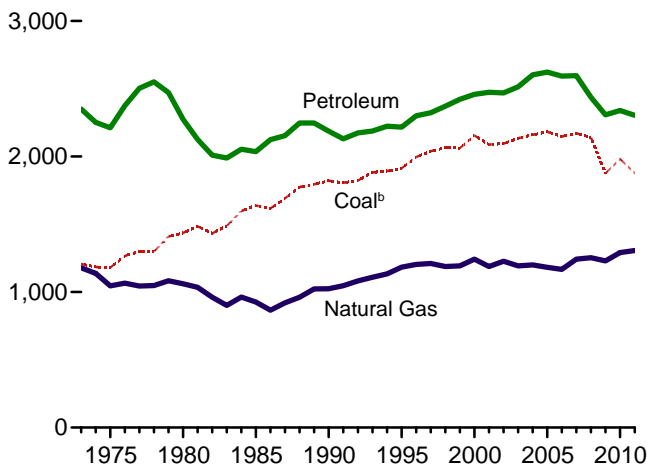
Total,<sup>a</sup> 1973-2011



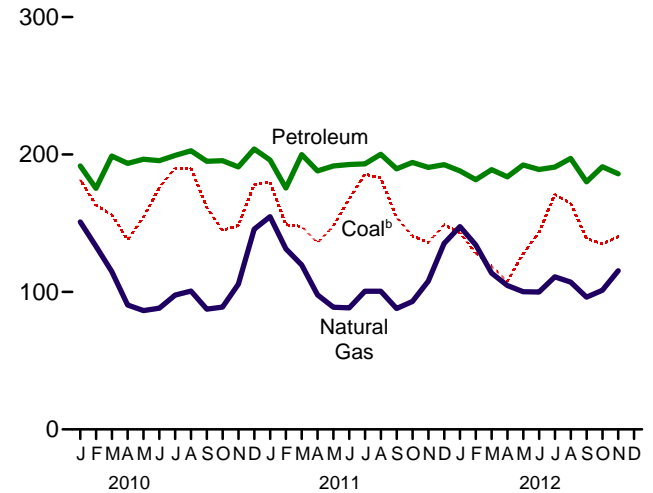
Total,<sup>a</sup> Monthly



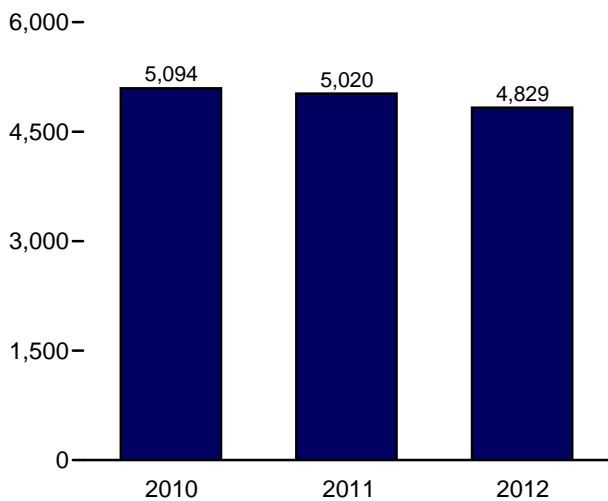
By Major Source, 1973-2011



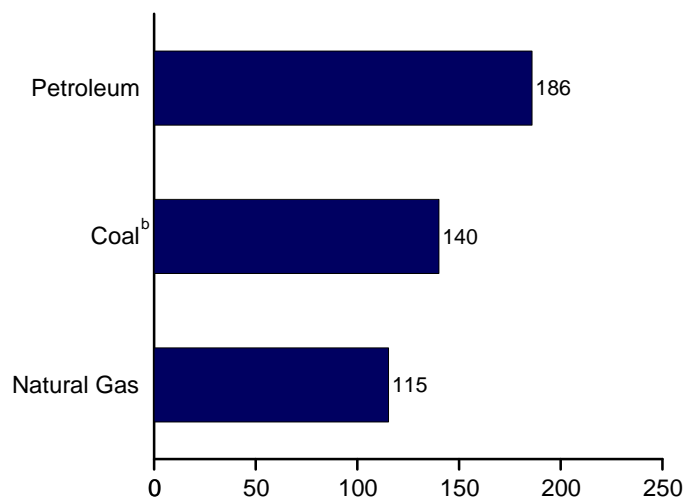
By Major Source, Monthly



Total,<sup>a</sup> January-November



By Major Source, November 2012



<sup>a</sup> Excludes emissions from biomass energy consumption.  
<sup>b</sup> Includes 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<sup>a</sup>)

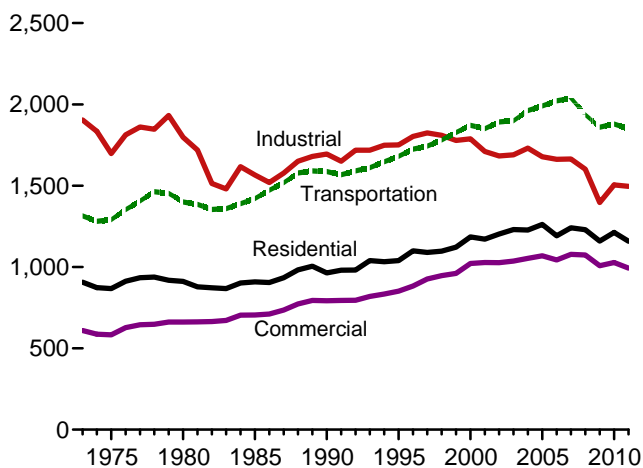
	Coal <sup>b</sup>	Natural Gas <sup>c</sup>	Petroleum										Total <sup>h,i</sup>	
			Aviation Gasoline	Distillate Fuel Oil <sup>d</sup>	Jet Fuel	Kero-sene	LPG <sup>e</sup>	Lubri-cants	Motor Gasoline <sup>f</sup>	Petroleum Coke	Residual Fuel Oil	Other <sup>g</sup>		
<b>1973 Total</b> .....	1,207	1,178	6	480	155	32	92	13	911	54	508	100	2,350	4,735
<b>1975 Total</b> .....	1,181	1,046	5	443	146	24	82	11	911	51	443	97	2,212	4,439
<b>1980 Total</b> .....	1,436	1,061	4	446	156	24	87	13	900	49	453	142	2,275	4,771
<b>1985 Total</b> .....	1,638	926	3	445	178	17	87	12	930	54	216	93	2,036	4,600
<b>1990 Total</b> .....	1,821	1,024	3	470	223	6	67	13	988	70	220	127	2,187	5,039
<b>1995 Total</b> .....	1,913	1,183	3	498	222	8	80	13	1,044	76	152	121	2,216	5,323
<b>1996 Total</b> .....	1,995	1,204	3	525	232	9	86	12	1,063	79	152	139	2,300	5,510
<b>1997 Total</b> .....	2,040	1,210	3	534	234	10	87	13	1,075	80	142	145	2,323	5,584
<b>1998 Total</b> .....	2,064	1,189	2	538	238	12	82	14	1,107	93	158	128	2,372	5,635
<b>1999 Total</b> .....	2,062	1,193	3	555	245	11	90	14	1,127	96	148	133	2,422	5,688
<b>2000 Total</b> .....	2,155	1,243	3	580	254	10	97	14	1,135	86	163	118	2,459	5,868
<b>2001 Total</b> .....	2,088	1,188	2	598	243	11	88	13	1,151	89	144	135	2,474	5,761
<b>2002 Total</b> .....	2,095	1,227	2	587	237	6	91	12	1,183	96	125	130	2,470	5,804
<b>2003 Total</b> .....	2,136	1,193	2	610	231	8	87	11	1,188	96	138	142	2,514	5,855
<b>2004 Total</b> .....	2,160	1,200	2	632	240	10	87	12	1,214	107	155	144	2,603	5,975
<b>2005 Total</b> .....	2,182	1,183	2	640	246	10	84	12	1,214	106	165	143	2,623	5,999
<b>2006 Total</b> .....	2,147	1,168	2	648	240	8	80	11	1,224	106	122	152	2,593	5,920
<b>2007 Total</b> .....	2,172	1,243	2	652	238	5	83	12	1,227	100	129	150	2,596	6,023
<b>2008 Total</b> .....	2,139	1,253	2	615	226	2	79	11	1,166	93	111	132	2,437	5,841
<b>2009 Total</b> .....	1,876	1,230	2	564	204	3	78	10	1,157	87	91	112	2,307	5,425
<b>2010</b> January .....	182	151	(s)	49	17	(s)	9	1	92	5	9	9	192	525
February .....	163	133	(s)	46	15	(s)	8	1	84	6	7	9	175	473
March .....	156	115	(s)	51	18	(s)	7	1	95	8	8	11	199	471
April .....	138	90	(s)	48	17	(s)	5	1	96	7	9	11	194	423
May .....	155	86	(s)	48	18	(s)	5	1	99	6	8	11	197	438
June .....	176	88	(s)	48	19	(s)	5	1	97	7	7	10	196	461
July .....	190	98	(s)	47	19	(s)	6	1	101	7	9	10	199	488
August .....	190	101	(s)	50	19	(s)	6	1	100	8	7	11	203	494
September .....	161	88	(s)	50	18	(s)	6	1	96	8	8	10	195	445
October .....	145	89	(s)	50	18	(s)	7	1	97	6	7	9	196	430
November .....	148	106	(s)	49	17	1	7	1	92	7	8	10	191	446
December .....	178	146	(s)	55	17	1	9	1	96	7	8	10	204	529
<b>Total</b> .....	1,982	1,290	2	590	210	3	79	11	1,146	81	96	122	2,339	5,623
<b>2011</b> January .....	180	155	(s)	52	17	(s)	10	1	91	7	9	10	196	532
February .....	149	131	(s)	47	15	1	8	1	84	5	8	8	176	457
March .....	148	120	(s)	53	17	(s)	8	1	95	6	7	11	200	468
April .....	136	98	(s)	48	18	(s)	6	1	92	6	7	10	188	423
May .....	148	89	(s)	49	18	(s)	6	1	95	8	7	8	192	430
June .....	168	88	(s)	50	19	(s)	6	1	95	7	7	9	193	450
July .....	186	101	(s)	47	18	(s)	6	1	98	7	5	11	193	481
August .....	183	101	(s)	53	19	(s)	7	1	96	8	5	10	200	485
September .....	154	88	(s)	50	17	(s)	6	1	92	6	7	10	190	433
October .....	141	93	(s)	53	17	(s)	7	1	93	7	6	10	194	429
November .....	136	108	(s)	52	17	(s)	8	1	89	7	6	11	191	435
December .....	149	135	(s)	51	17	(s)	9	1	94	4	8	10	193	478
<b>Total</b> .....	1,876	1,306	2	603	209	2	87	10	1,113	78	82	118	2,304	5,498
<b>2012</b> January .....	143	148	(s)	50	16	(s)	8	1	89	7	6	11	188	480
February .....	128	134	(s)	49	16	(s)	8	1	87	5	6	10	182	445
March .....	119	114	(s)	49	17	(s)	7	1	93	6	6	9	189	422
April .....	108	105	(s)	47	16	(s)	6	1	92	6	6	9	184	397
May .....	128	100	(s)	49	18	(s)	7	1	97	7	4	9	192	421
June .....	143	100	(s)	47	19	(s)	6	1	94	7	5	10	189	433
July .....	171	111	(s)	47	18	(s)	7	1	95	6	6	10	191	474
August .....	164	107	(s)	49	18	(s)	7	1	99	7	5	11	197	470
September .....	139	96	(s)	47	17	(s)	7	1	90	6	4	8	180	416
October .....	135	101	(s)	50	17	(s)	8	1	94	6	4	11	191	428
November .....	140	115	(s)	50	17	(s)	8	1	89	7	4	11	186	442
<b>11-Month Total</b> ...	1,518	1,231	2	533	189	1	79	9	1,019	70	59	110	2,069	4,829
<b>2011 11-Month Total</b> ...	1,727	1,171	2	553	192	2	78	9	1,020	74	74	108	2,112	5,020
<b>2010 11-Month Total</b> ...	1,804	1,145	2	535	193	2	70	10	1,050	74	88	112	2,135	5,094

<sup>a</sup> Metric tons of carbon dioxide can be converted to metric tons of carbon equivalent by multiplying by 12/44.  
<sup>b</sup> Includes coal coke net imports.  
<sup>c</sup> Natural gas, excluding supplemental gaseous fuels.  
<sup>d</sup> Distillate fuel oil, excluding biodiesel.  
<sup>e</sup> Liquefied petroleum gases.  
<sup>f</sup> Finished motor gasoline, excluding fuel ethanol.  
<sup>g</sup> 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.  
<sup>h</sup> Includes electric power sector use of geothermal energy and non-biomass waste. See Table 12.6.  
<sup>i</sup> Excludes emissions from biomass energy consumption. See Table 12.7.

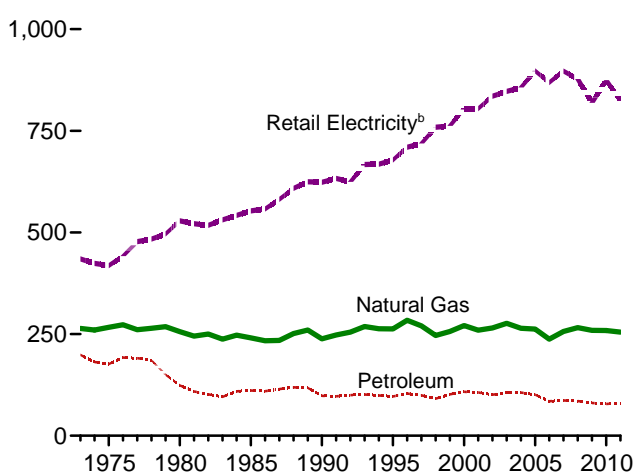
(s)=Less than 0.5 million metric tons.  
 Notes: • Data are estimates for carbon dioxide emissions from energy consumption, including the nonfuel use of fossil fuels. See "Section 12 Methodology and Sources" at end of section. • See "Carbon Dioxide" in Glossary. • See Note 1, "Emissions of Carbon Dioxide 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> for all available data beginning in 1973.  
 Sources: See end of section.

**Figure 12.2 Carbon Dioxide Emissions From Energy Consumption by Sector**  
(Million Metric Tons of Carbon Dioxide)

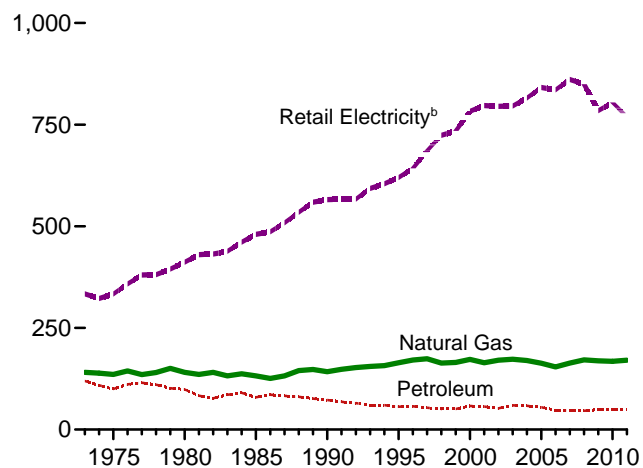
Total<sup>a</sup> by End-Use Sector,<sup>b</sup> 1973-2011



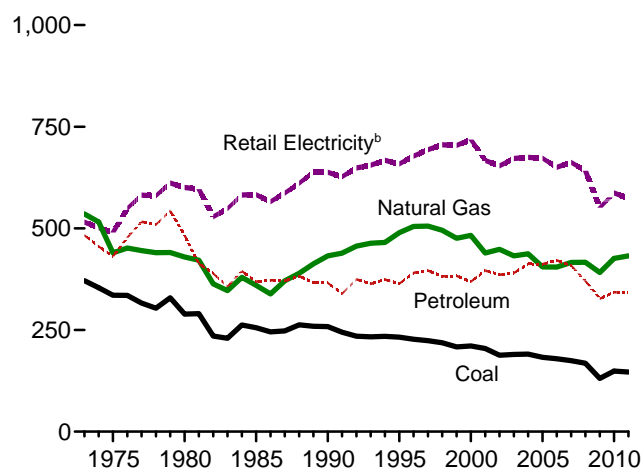
Residential Sector by Major Source, 1973-2011



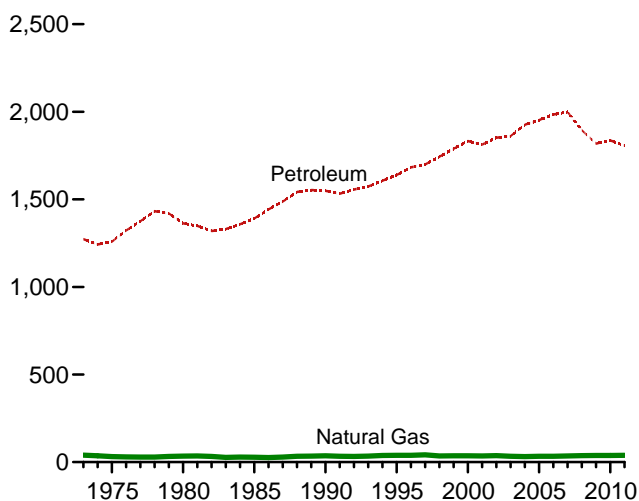
Commercial Sector by Major Source, 1973-2011



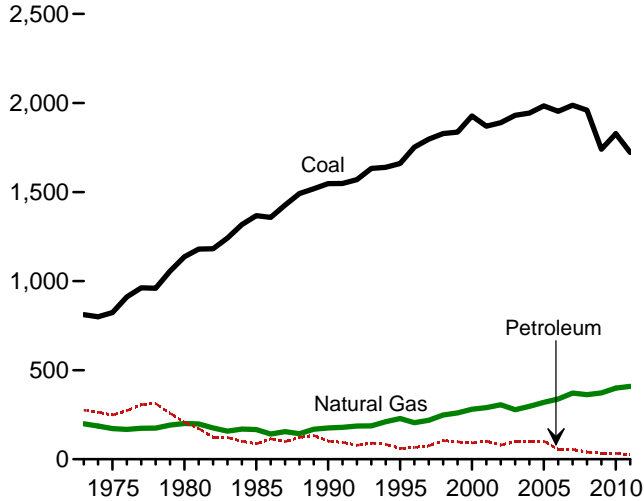
Industrial Sector by Major Source, 1973-2011



Transportation Sector by Major Source, 1973-2011



Electric Power Sector by Major Source, 1973-2011



<sup>a</sup> Excludes emissions from biomass energy consumption.

<sup>b</sup> 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<sup>a</sup>)

	Coal	Natural Gas <sup>b</sup>	Petroleum				Retail Elec- tricity <sup>e</sup>	Total <sup>f</sup>
			Distillate Fuel Oil <sup>c</sup>	Kerosene	LPG <sup>d</sup>	Total		
<b>1973 Total</b> .....	<b>9</b>	<b>264</b>	<b>147</b>	<b>16</b>	<b>36</b>	<b>199</b>	<b>435</b>	<b>907</b>
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	66	5	34	106	847	1,230
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 .....	1	266	49	2	35	85	878	1,229
2009 Total .....	1	259	44	2	35	81	819	1,159
<b>2010</b> January .....	(s)	51	6	(s)	3	10	91	151
February .....	(s)	43	6	(s)	3	9	74	126
March .....	(s)	31	4	(s)	3	7	65	103
April .....	(s)	17	2	(s)	2	5	51	73
May .....	(s)	11	3	(s)	2	5	59	75
June .....	(s)	7	3	(s)	2	6	79	92
July .....	(s)	6	2	(s)	3	5	97	108
August .....	(s)	6	2	(s)	3	5	96	107
September .....	(s)	6	2	(s)	3	5	72	83
October .....	(s)	11	3	(s)	3	6	56	73
November .....	(s)	24	3	(s)	3	7	56	87
December .....	(s)	46	6	(s)	3	10	81	137
<b>Total</b> .....	<b>1</b>	<b>259</b>	<b>43</b>	<b>2</b>	<b>33</b>	<b>78</b>	<b>875</b>	<b>1,212</b>
<b>2011</b> January .....	(s)	52	5	(s)	4	9	87	148
February .....	(s)	42	5	(s)	3	8	67	117
March .....	(s)	33	4	(s)	3	7	59	98
April .....	(s)	19	3	(s)	3	5	53	77
May .....	(s)	11	2	(s)	3	4	57	73
June .....	(s)	7	3	(s)	3	5	75	88
July .....	(s)	6	2	(s)	3	5	95	106
August .....	(s)	6	3	(s)	3	6	92	104
September .....	(s)	7	3	(s)	3	6	68	81
October .....	(s)	12	4	(s)	3	7	53	72
November .....	(s)	23	4	(s)	3	7	53	83
December .....	(s)	37	6	(s)	3	9	66	113
<b>Total</b> .....	<b>1</b>	<b>255</b>	<b>44</b>	<b>1</b>	<b>35</b>	<b>80</b>	<b>823</b>	<b>1,159</b>
<b>2012</b> January .....	(s)	43	6	(s)	3	9	69	121
February .....	(s)	36	5	(s)	3	8	58	102
March .....	(s)	22	4	(s)	3	7	51	80
April .....	(s)	15	3	(s)	3	6	45	66
May .....	(s)	9	3	(s)	3	6	55	70
June .....	(s)	7	3	(s)	3	6	69	82
July .....	(s)	6	3	(s)	3	6	93	104
August .....	(s)	6	4	(s)	3	7	85	98
September .....	(s)	6	3	(s)	3	6	65	77
October .....	(s)	13	3	(s)	3	6	54	73
November .....	(s)	26	3	(s)	3	6	57	89
<b>11-Month Total</b> .....	<b>(s)</b>	<b>190</b>	<b>40</b>	<b>(s)</b>	<b>32</b>	<b>72</b>	<b>700</b>	<b>962</b>
<b>2011 11-Month Total</b> .....	<b>(s)</b>	<b>218</b>	<b>38</b>	<b>1</b>	<b>32</b>	<b>71</b>	<b>759</b>	<b>1,048</b>
<b>2010 11-Month Total</b> .....	<b>1</b>	<b>213</b>	<b>37</b>	<b>2</b>	<b>30</b>	<b>69</b>	<b>795</b>	<b>1,077</b>

<sup>a</sup> Metric tons of carbon dioxide can be converted to metric tons of carbon equivalent by multiplying by 12/44.

<sup>b</sup> Natural gas, excluding supplemental gaseous fuels.

<sup>c</sup> Distillate fuel oil, excluding biodiesel.

<sup>d</sup> Liquefied petroleum gases.

<sup>e</sup> 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.

<sup>f</sup> Excludes emissions from biomass energy consumption. See Table 12.7.

(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> for all available data beginning in 1973.

Sources: See end of section.

**Table 12.3 Carbon Dioxide Emissions From Energy Consumption: Commercial Sector**  
(Million Metric Tons of Carbon Dioxide<sup>a</sup>)

	Coal	Natural Gas <sup>b</sup>	Petroleum						Retail Electricity <sup>f</sup>	Total <sup>g</sup>	
			Distillate Fuel Oil <sup>c</sup>	Kerosene	LPG <sup>d</sup>	Motor Gasoline <sup>e</sup>	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	35	1	10	4	(s)	9	59	796	1,036
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	7	171	27	(s)	10	3	(s)	6	46	850	1,074
2009 Total	6	169	30	(s)	9	4	(s)	6	49	785	1,008
2010 January	1	27	4	(s)	1	(s)	(s)	1	6	66	101
February	1	24	4	(s)	1	(s)	(s)	1	6	60	91
March	1	18	3	(s)	1	(s)	(s)	1	4	59	82
April	(s)	12	2	(s)	1	(s)	(s)	(s)	3	57	73
May	(s)	9	2	(s)	1	(s)	0	(s)	3	66	78
June	(s)	7	2	(s)	1	(s)	0	(s)	4	74	85
July	(s)	7	2	(s)	1	(s)	0	(s)	3	80	90
August	(s)	7	2	(s)	1	(s)	(s)	(s)	3	81	91
September	(s)	7	1	(s)	1	(s)	(s)	(s)	3	69	79
October	(s)	10	2	(s)	1	(s)	(s)	(s)	4	63	77
November	(s)	16	2	(s)	1	(s)	(s)	(s)	4	61	81
December	1	25	4	(s)	1	(s)	(s)	1	6	68	100
Total	6	168	30	(s)	9	4	(s)	6	49	805	1,027
2011 January	1	29	4	(s)	1	(s)	(s)	1	6	65	100
February	1	23	4	(s)	1	(s)	(s)	1	5	55	85
March	1	20	3	(s)	1	(s)	(s)	(s)	4	58	83
April	(s)	13	2	(s)	1	(s)	0	(s)	3	57	73
May	(s)	9	1	(s)	1	(s)	0	(s)	2	63	75
June	(s)	7	2	(s)	1	(s)	0	(s)	3	70	81
July	(s)	7	2	(s)	1	(s)	0	(s)	3	79	89
August	(s)	7	2	(s)	1	(s)	0	(s)	4	77	89
September	(s)	8	2	(s)	1	(s)	0	(s)	4	66	77
October	(s)	11	3	(s)	1	(s)	0	(s)	4	61	77
November	(s)	15	3	(s)	1	(s)	(s)	1	5	57	77
December	(s)	21	4	(s)	1	(s)	(s)	1	6	60	87
Total	5	171	31	(s)	9	4	(s)	5	49	769	994
2012 January	(s)	24	4	(s)	1	(s)	(s)	1	6	57	88
February	(s)	21	3	(s)	1	(s)	(s)	1	5	53	80
March	(s)	14	3	(s)	1	(s)	(s)	1	5	52	71
April	(s)	11	2	(s)	1	(s)	(s)	(s)	3	51	66
May	(s)	8	2	(s)	1	(s)	0	(s)	4	61	73
June	(s)	7	2	(s)	1	(s)	0	(s)	4	66	77
July	(s)	7	2	(s)	1	(s)	(s)	(s)	4	77	87
August	(s)	7	3	(s)	1	(s)	(s)	(s)	4	74	85
September	(s)	8	2	(s)	1	(s)	(s)	(s)	3	64	75
October	(s)	11	2	(s)	1	(s)	(s)	(s)	3	61	R 77
November	1	16	2	(s)	1	(s)	(s)	(s)	4	60	81
11-Month Total	4	136	28	(s)	8	3	(s)	5	45	676	861
2011 11-Month Total	5	149	27	(s)	8	3	(s)	5	43	709	906
2010 11-Month Total	5	143	26	(s)	8	3	(s)	5	43	736	927

<sup>a</sup> Metric tons of carbon dioxide can be converted to metric tons of carbon equivalent by multiplying by 12/44.

<sup>b</sup> Natural gas, excluding supplemental gaseous fuels.

<sup>c</sup> Distillate fuel oil, excluding biodiesel.

<sup>d</sup> Liquefied petroleum gases.

<sup>e</sup> Finished motor gasoline, excluding fuel ethanol.

<sup>f</sup> 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.

<sup>g</sup> 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> for all available data beginning in 1973.

Sources: See end of section.

**Table 12.4 Carbon Dioxide Emissions From Energy Consumption: Industrial Sector**  
(Million Metric Tons of Carbon Dioxide<sup>a</sup>)

	Coal	Coal Coke Net Imports	Natural Gas <sup>b</sup>	Petroleum									Retail Elec- tricity <sup>g</sup>	Total <sup>h</sup>
				Distillate Fuel Oil <sup>c</sup>	Kero- sene	LPG <sup>d</sup>	Lubri- cants	Motor Gasoline <sup>e</sup>	Petroleum Coke	Residual Fuel Oil	Other <sup>f</sup>	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	83	2	42	6	23	78	16	142	390	672	1,690
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	405	92	2	43	6	26	84	16	152	421	650	1,662
2007 Total .....	175	3	416	92	1	43	6	21	82	13	150	409	662	1,665
2008 Total .....	168	5	417	93	(s)	32	6	17	77	14	132	371	642	1,602
2009 Total .....	131	-3	391	80	(s)	33	5	17	72	7	112	327	551	1,397
2010 January .....	12	(s)	39	6	(s)	4	(s)	2	4	1	9	27	46	124
February .....	12	(s)	36	6	(s)	4	(s)	1	4	1	9	26	44	119
March .....	13	(s)	37	9	(s)	3	(s)	2	6	1	11	32	46	128
April .....	12	(s)	34	8	(s)	2	(s)	2	6	1	11	30	45	121
May .....	12	(s)	34	6	(s)	2	(s)	2	5	1	11	27	51	124
June .....	12	(s)	33	5	(s)	2	1	2	6	1	10	27	52	124
July .....	12	(s)	34	4	(s)	2	1	2	6	1	10	25	54	125
August .....	13	(s)	34	7	(s)	2	(s)	2	7	1	11	30	55	132
September .....	13	(s)	34	9	(s)	2	(s)	2	7	1	10	31	48	125
October .....	12	(s)	35	7	(s)	3	(s)	2	5	1	9	27	47	121
November .....	13	-1	36	8	(s)	3	(s)	2	6	1	10	30	48	126
December .....	13	-1	40	9	(s)	4	(s)	2	6	1	10	32	50	134
Total .....	149	-1	426	86	1	35	6	19	67	8	122	343	587	1,504
2011 January .....	13	(s)	40	9	(s)	5	(s)	1	5	1	10	32	48	133
February .....	12	(s)	36	7	(s)	4	(s)	1	4	1	8	25	42	116
March .....	13	(s)	38	10	(s)	4	1	2	5	1	11	33	46	130
April .....	12	(s)	35	7	(s)	3	(s)	2	5	1	10	28	45	120
May .....	12	(s)	35	7	(s)	3	(s)	2	7	1	8	27	48	123
June .....	12	(s)	33	7	(s)	3	(s)	2	5	1	9	27	50	122
July .....	12	(s)	34	4	(s)	3	(s)	2	5	(s)	11	25	54	125
August .....	12	(s)	35	7	(s)	3	(s)	2	7	(s)	10	30	53	130
September .....	12	(s)	34	7	(s)	3	(s)	2	5	1	10	28	47	121
October .....	12	(s)	36	8	(s)	3	(s)	2	6	1	10	29	47	125
November .....	12	(s)	37	9	(s)	4	(s)	1	6	1	11	32	46	126
December .....	13	(s)	40	6	(s)	4	(s)	2	3	1	10	26	45	124
Total .....	147	1	432	89	(s)	41	5	18	63	7	118	341	574	1,496
2012 January .....	12	(s)	41	7	(s)	4	(s)	1	5	1	11	30	43	125
February .....	12	(s)	38	9	(s)	4	(s)	1	4	(s)	10	30	42	121
March .....	12	(s)	37	7	(s)	3	(s)	2	5	1	9	27	41	118
April .....	11	1	36	6	(s)	3	(s)	2	5	1	9	26	41	114
May .....	11	(s)	36	6	(s)	3	(s)	2	6	(s)	9	27	46	121
June .....	11	(s)	35	5	(s)	3	(s)	2	6	(s)	10	26	47	118
July .....	11	(s)	36	3	(s)	3	(s)	2	5	1	10	25	52	124
August .....	11	(s)	36	4	(s)	3	(s)	2	7	(s)	11	27	50	125
September .....	11	(s)	36	6	(s)	3	(s)	1	6	(s)	8	25	45	116
October .....	12	(s)	37	8	(s)	4	(s)	2	5	(s)	11	30	46	125
November .....	11	(s)	38	8	(s)	4	(s)	1	6	(s)	11	31	46	126
11-Month Total ...	124	(s)	407	69	(s)	38	4	17	61	5	110	303	499	1,334
2011 11-Month Total ...	134	1	393	83	(s)	37	5	17	60	7	108	316	527	1,371
2010 11-Month Total ...	136	(s)	386	77	(s)	31	5	17	61	8	112	311	536	1,369

<sup>a</sup> Metric tons of carbon dioxide can be converted to metric tons of carbon equivalent by multiplying by 12/44.

<sup>b</sup> Natural gas, excluding supplemental gaseous fuels.

<sup>c</sup> Distillate fuel oil, excluding biodiesel.

<sup>d</sup> Liquefied petroleum gases.

<sup>e</sup> Finished motor gasoline, excluding fuel ethanol.

<sup>f</sup> 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.

<sup>g</sup> 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.

<sup>h</sup> 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> for all available data beginning in 1973.

Sources: See end of section.

**Table 12.5 Carbon Dioxide Emissions From Energy Consumption: Transportation Sector**  
(Million Metric Tons of Carbon Dioxide<sup>a</sup>)

	Coal	Natural Gas <sup>b</sup>	Petroleum							Retail Electricity <sup>f</sup>	Total <sup>g</sup>	
			Aviation Gasoline	Distillate Fuel Oil <sup>c</sup>	Jet Fuel	LPG <sup>d</sup>	Lubricants	Motor Gasoline <sup>e</sup>	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	414	231	1	6	1,161	45	1,861	5	1,899
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	440	226	3	5	1,146	72	1,895	5	1,937
2009 Total	(h)	38	2	404	204	2	5	1,137	64	1,818	5	1,860
2010 January	(h)	4	(s)	31	17	(s)	(s)	91	6	145	(s)	150
February	(h)	4	(s)	30	15	(s)	(s)	82	5	133	(s)	137
March	(h)	3	(s)	35	18	(s)	(s)	94	6	154	(s)	157
April	(h)	3	(s)	35	17	(s)	(s)	94	7	154	(s)	157
May	(h)	3	(s)	37	18	(s)	(s)	97	6	159	(s)	161
June	(h)	3	(s)	36	19	(s)	1	95	5	156	(s)	159
July	(h)	3	(s)	38	19	(s)	(s)	99	6	162	(s)	165
August	(h)	3	(s)	39	19	(s)	(s)	98	5	161	(s)	165
September	(h)	3	(s)	37	18	(s)	(s)	94	6	155	(s)	157
October	(h)	3	(s)	37	18	(s)	(s)	95	6	157	(s)	160
November	(h)	3	(s)	35	17	(s)	(s)	90	6	149	(s)	152
December	(h)	4	(s)	35	17	(s)	(s)	94	5	153	(s)	158
Total	(h)	38	2	425	210	2	5	1,124	69	1,836	5	1,879
2011 January	(h)	5	(s)	33	17	(s)	(s)	89	6	146	(s)	151
February	(h)	4	(s)	31	15	(s)	(s)	82	6	135	(s)	139
March	(h)	4	(s)	36	17	(s)	1	93	5	153	(s)	157
April	(h)	3	(s)	36	18	(s)	(s)	90	5	150	(s)	153
May	(h)	3	(s)	38	18	(s)	(s)	93	6	155	(s)	158
June	(h)	3	(s)	38	19	(s)	(s)	93	5	156	(s)	159
July	(h)	3	(s)	38	18	(s)	(s)	96	3	157	(s)	160
August	(h)	3	(s)	40	19	(s)	(s)	94	4	158	(s)	161
September	(h)	3	(s)	37	17	(s)	(s)	90	6	150	(s)	153
October	(h)	3	(s)	38	17	(s)	(s)	92	5	152	(s)	155
November	(h)	3	(s)	36	17	(s)	(s)	87	5	145	(s)	149
December	(h)	4	(s)	34	17	(s)	(s)	92	6	150	(s)	154
Total	(h)	39	2	435	209	2	5	1,091	62	1,807	4	1,850
2012 January	(h)	4	(s)	32	16	(s)	(s)	87	5	141	(s)	145
February	(h)	4	(s)	31	16	(s)	(s)	85	4	137	(s)	142
March	(h)	3	(s)	35	17	(s)	(s)	91	5	149	(s)	152
April	(h)	3	(s)	35	16	(s)	(s)	90	5	147	(s)	151
May	(h)	3	(s)	37	18	(s)	(s)	95	3	154	(s)	157
June	(h)	3	(s)	37	19	(s)	(s)	93	4	153	(s)	156
July	(h)	3	(s)	38	18	(s)	(s)	93	5	155	(s)	159
August	(h)	3	(s)	38	18	(s)	(s)	97	4	158	(s)	161
September	(h)	3	(s)	36	17	(s)	(s)	88	3	144	(s)	148
October	(h)	3	(s)	38	17	(s)	(s)	92	3	150	(s)	153
November	(h)	3	(s)	35	17	(s)	(s)	87	3	144	(s)	147
11-Month Total	(h)	37	2	393	189	2	4	999	43	1,632	4	1,672
2011 11-Month Total	(h)	35	2	401	192	2	5	1,000	56	1,657	4	1,696
2010 11-Month Total	(h)	34	2	389	193	2	5	1,029	64	1,683	4	1,722

<sup>a</sup> Metric tons of carbon dioxide can be converted to metric tons of carbon equivalent by multiplying by 12/44.

<sup>b</sup> Natural gas, excluding supplemental gaseous fuels.

<sup>c</sup> Distillate fuel oil, excluding biodiesel.

<sup>d</sup> Liquefied petroleum gases.

<sup>e</sup> Finished motor gasoline, excluding fuel ethanol.

<sup>f</sup> 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.

<sup>g</sup> Excludes emissions from biomass energy consumption. See Table 12.7.

<sup>h</sup> Beginning in 1978, the small amounts of coal consumed for transportation are reported as industrial sector consumption.

(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> for all available data beginning in 1973.

Sources: See end of section.

**Table 12.6 Carbon Dioxide Emissions From Energy Consumption: Electric Power Sector**  
(Million Metric Tons of Carbon Dioxide<sup>a</sup>)

	Coal	Natural Gas <sup>b</sup>	Petroleum				Geo-thermal	Non-Biomass Waste <sup>d</sup>	Total <sup>e</sup>
			Distillate Fuel Oil <sup>c</sup>	Petroleum Coke	Residual Fuel Oil	Total			
<b>1973 Total</b> .....	812	199	20	2	254	276	NA	NA	1,286
<b>1975 Total</b> .....	824	172	17	(s)	231	248	NA	NA	1,244
<b>1980 Total</b> .....	1,137	200	12	1	194	207	NA	NA	1,544
<b>1985 Total</b> .....	1,367	166	6	1	79	86	NA	NA	1,619
<b>1990 Total</b> .....	1,548	176	7	3	92	102	(s)	6	1,831
<b>1995 Total</b> .....	1,661	228	8	8	45	61	(s)	10	1,960
<b>1996 Total</b> .....	1,752	205	8	8	50	66	(s)	10	2,033
<b>1997 Total</b> .....	1,797	219	8	10	56	75	(s)	10	2,101
<b>1998 Total</b> .....	1,828	248	10	13	82	105	(s)	10	2,192
<b>1999 Total</b> .....	1,836	260	10	11	76	97	(s)	10	2,204
<b>2000 Total</b> .....	1,927	281	13	10	69	91	(s)	10	2,310
<b>2001 Total</b> .....	1,870	290	12	11	79	102	(s)	11	2,273
<b>2002 Total</b> .....	1,890	306	9	18	52	79	(s)	13	2,288
<b>2003 Total</b> .....	1,931	278	12	18	69	98	(s)	11	2,319
<b>2004 Total</b> .....	1,943	297	8	23	69	100	(s)	11	2,352
<b>2005 Total</b> .....	1,984	319	8	25	69	102	(s)	11	2,417
<b>2006 Total</b> .....	1,954	338	5	22	28	56	(s)	12	2,359
<b>2007 Total</b> .....	1,987	372	7	17	31	55	(s)	11	2,426
<b>2008 Total</b> .....	1,959	362	5	16	19	40	(s)	12	2,374
<b>2009 Total</b> .....	1,741	373	5	14	14	34	(s)	11	2,159
<b>2010</b> January .....	170	30	1	1	1	4	(s)	1	204
February .....	150	26	(s)	1	1	2	(s)	1	179
March .....	143	25	(s)	1	1	2	(s)	1	171
April .....	125	25	(s)	1	1	2	(s)	1	154
May .....	142	30	(s)	1	1	3	(s)	1	176
June .....	163	38	1	1	2	4	(s)	1	206
July .....	177	48	1	2	2	4	(s)	1	231
August .....	177	51	(s)	1	2	3	(s)	1	232
September .....	148	38	(s)	1	1	2	(s)	1	189
October .....	132	31	(s)	1	1	2	(s)	1	166
November .....	136	27	(s)	1	1	2	(s)	1	166
December .....	165	31	1	1	1	3	(s)	1	200
<b>Total</b> .....	<b>1,828</b>	<b>399</b>	<b>6</b>	<b>15</b>	<b>12</b>	<b>33</b>	<b>(s)</b>	<b>11</b>	<b>2,271</b>
<b>2011</b> January .....	166	29	1	2	1	3	(s)	1	200
February .....	136	26	(s)	1	1	2	(s)	1	165
March .....	134	26	(s)	2	1	3	(s)	1	163
April .....	124	28	(s)	1	1	2	(s)	1	155
May .....	135	31	(s)	1	1	2	(s)	1	169
June .....	155	38	(s)	1	1	2	(s)	1	196
July .....	174	51	(s)	2	1	3	(s)	1	228
August .....	170	50	(s)	1	1	2	(s)	1	223
September .....	141	37	(s)	1	(s)	2	(s)	1	181
October .....	128	31	(s)	1	(s)	2	(s)	1	162
November .....	124	29	(s)	1	(s)	2	(s)	1	155
December .....	136	33	(s)	1	(s)	2	(s)	1	172
<b>Total</b> .....	<b>1,723</b>	<b>409</b>	<b>5</b>	<b>15</b>	<b>7</b>	<b>27</b>	<b>(s)</b>	<b>11</b>	<b>2,170</b>
<b>2012</b> January .....	131	35	(s)	1	1	2	(s)	1	169
February .....	116	35	(s)	1	(s)	2	(s)	1	153
March .....	106	37	(s)	1	(s)	1	(s)	1	145
April .....	96	39	(s)	(s)	(s)	1	(s)	1	137
May .....	116	44	(s)	1	(s)	1	(s)	1	163
June .....	132	48	(s)	1	1	2	(s)	1	183
July .....	160	59	(s)	1	1	2	(s)	1	222
August .....	153	54	(s)	1	1	2	(s)	1	210
September .....	128	44	(s)	1	(s)	2	(s)	1	174
October .....	123	36	(s)	1	(s)	1	(s)	1	162
November .....	129	31	(s)	1	(s)	1	(s)	1	163
<b>11-Month Total</b> .....	<b>1,389</b>	<b>462</b>	<b>4</b>	<b>8</b>	<b>6</b>	<b>17</b>	<b>(s)</b>	<b>10</b>	<b>1,879</b>
<b>2011 11-Month Total</b> .....	<b>1,587</b>	<b>376</b>	<b>4</b>	<b>14</b>	<b>7</b>	<b>25</b>	<b>(s)</b>	<b>10</b>	<b>1,999</b>
<b>2010 11-Month Total</b> .....	<b>1,662</b>	<b>369</b>	<b>5</b>	<b>13</b>	<b>11</b>	<b>30</b>	<b>(s)</b>	<b>10</b>	<b>2,071</b>

<sup>a</sup> Metric tons of carbon dioxide can be converted to metric tons of carbon equivalent by multiplying by 12/44.

<sup>b</sup> Natural gas, excluding supplemental gaseous fuels.

<sup>c</sup> Distillate fuel oil, excluding biodiesel.

<sup>d</sup> Municipal solid waste from non-biogenic sources, and tire-derived fuels.

<sup>e</sup> 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> for all available 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<sup>a</sup>)

	By Source					By Sector					
	Wood <sup>b</sup>	Biomass Waste <sup>c</sup>	Fuel Ethanol <sup>d</sup>	Bio-diesel	Total	Residential	Commercial <sup>e</sup>	Industrial <sup>f</sup>	Transportation	Electric Power <sup>g</sup>	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 .....	194	37	39	3	274	38	9	146	41	39	274
2008 Total .....	191	40	55	3	289	42	10	140	57	40	289
2009 Total .....	177	41	62	3	284	40	10	128	64	41	284
2010 January .....	16	4	6	(s)	25	3	1	12	6	4	25
February .....	14	3	5	(s)	23	3	1	11	5	3	23
March .....	16	4	6	(s)	25	3	1	12	6	4	25
April .....	15	4	6	(s)	25	3	1	11	6	3	25
May .....	15	4	6	(s)	25	3	1	11	6	3	25
June .....	15	4	6	(s)	25	3	1	11	6	4	25
July .....	16	4	6	(s)	26	3	1	12	6	4	26
August .....	16	4	6	(s)	26	3	1	12	6	4	26
September .....	16	3	6	(s)	25	3	1	12	6	3	25
October .....	16	4	6	(s)	26	3	1	12	6	3	26
November .....	15	4	6	(s)	25	3	1	12	6	4	25
December .....	16	4	6	(s)	27	3	1	12	6	4	27
Total .....	186	43	73	2	304	39	10	139	74	42	304
2011 January .....	17	4	6	(s)	26	3	1	12	6	3	26
February .....	15	3	6	(s)	24	3	1	11	6	3	24
March .....	16	4	6	(s)	26	3	1	12	6	3	26
April .....	15	3	6	1	25	3	1	11	6	3	25
May .....	15	3	6	1	25	3	1	11	7	3	25
June .....	16	4	6	1	26	3	1	12	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	7	3	26
October .....	16	4	6	1	26	3	1	12	7	3	26
November .....	16	4	6	1	26	3	1	12	7	3	26
December .....	17	4	6	1	28	3	1	13	7	4	28
Total .....	189	43	73	8	313	40	11	142	80	40	313
2012 January .....	16	4	6	(s)	26	3	1	12	6	3	26
February .....	15	3	6	1	25	3	1	11	6	3	25
March .....	15	4	6	1	26	3	1	11	7	3	26
April .....	14	3	6	1	25	3	1	11	7	3	25
May .....	16	4	6	1	27	3	1	12	7	3	27
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	3	27
September .....	15	3	6	1	25	3	1	11	6	3	25
October .....	15	4	6	1	26	3	1	12	7	3	26
November .....	15	4	6	1	26	3	1	12	6	3	26
11-Month Total .....	170	39	67	8	284	37	10	128	74	36	284
2011 11-Month Total .....	172	39	67	7	285	37	10	129	73	37	285
2010 11-Month Total .....	170	39	66	2	278	36	9	126	67	39	278

<sup>a</sup> Metric tons of carbon dioxide can be converted to metric tons of carbon equivalent by multiplying by 12/44.

<sup>b</sup> Wood and wood-derived fuels.

<sup>c</sup> Municipal solid waste from biogenic sources, landfill gas, sludge waste, agricultural byproducts, and other biomass.

<sup>d</sup> Fuel ethanol minus denaturant.

<sup>e</sup> Commercial sector, including commercial combined-heat-and-power (CHP) and commercial electricity-only plants.

<sup>f</sup> Industrial sector, including industrial combined-heat-and-power (CHP) and industrial electricity-only plants.

<sup>g</sup> 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> for all available 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 (CO<sub>2</sub>), 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. CO<sub>2</sub> emissions. The vast majority of CO<sub>2</sub> 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 CO<sub>2</sub> 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. CO<sub>2</sub> emissions from energy consumption, including the nonfuel use of fossil fuels (excluded are estimates for CO<sub>2</sub> emissions from biomass energy consumption, which appear in Table 12.7).

For annual U.S. estimates for emissions of CO<sub>2</sub> 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/](http://www.eia.gov/environment/emissions/ghg_report/).

**Note 2. Accounting for Carbon Dioxide Emissions From Biomass Energy Combustion.** Carbon dioxide (CO<sub>2</sub>) emissions from the combustion of biomass to produce energy are excluded from the energy-related CO<sub>2</sub> 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 CO<sub>2</sub> emissions from biomass can potentially lead to confusion in accounting for and understanding the flow of CO<sub>2</sub> emissions within energy and non-energy systems. In recognition of this issue, reporting of CO<sub>2</sub> emissions from biomass combustion alongside other energy-related CO<sub>2</sub> 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 CO<sub>2</sub> emissions from biomass and energy-related CO<sub>2</sub> 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/ggrrpt/documentation/pdf/0638\(2006\).pdf](http://www.eia.gov/oiaf/1605/ggrrpt/documentation/pdf/0638(2006).pdf).

To obtain monthly estimates of nonfuel use and associated carbon sequestration, monthly patterns for industrial consumption and product supplied data series are used. For coal nonfuel use, the monthly pattern for coke plants coal consumption from MER Table 6.2 is used. For natural gas, the monthly pattern for other industrial non-CHP natural gas consumption from MER Table 4.3 is used. For distillate fuel oil, petroleum coke, and residual fuel oil, the monthly patterns for industrial consumption from MER Table 3.7b are used. For the other petroleum products, the monthly patterns for product supplied from the PSA and PSM are used.

## Step 4. Determine Carbon Dioxide Emissions From Energy Consumption

Carbon dioxide (CO<sub>2</sub>) 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 CO<sub>2</sub> emissions factors at [http://www.eia.gov/oiaf/1605/ggrrpt/excel/CO2\\_coeffs\\_09\\_v2.xls](http://www.eia.gov/oiaf/1605/ggrrpt/excel/CO2_coeffs_09_v2.xls). Beginning in 2010, the 2009 factors are used.

Coal—CO<sub>2</sub> 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—CO<sub>2</sub> emissions for coal coke net imports are calculated.

Natural Gas—CO<sub>2</sub> 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—CO<sub>2</sub> 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 CO<sub>2</sub> 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—CO<sub>2</sub> 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 CO<sub>2</sub> 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/cneaf/solar.renewables/page/mswaste/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 <sup>a</sup>	4.130	Other Oils Equal to or Greater Than 401°F	5.825
Distillate Fuel Oil <sup>b</sup>	5.825	Still Gas	6.000
Ethane	3.082	Petroleum Coke	6.024
Ethane-Propane Mixture <sup>c</sup>	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 <sup>d</sup>		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		

<sup>a</sup> 60 percent butane and 40 percent propane.

<sup>b</sup> Does not include biodiesel. See Table A3 for biodiesel heat contents.

<sup>c</sup> 70 percent ethane and 30 percent propane.

<sup>d</sup> 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 <sup>a</sup>	Natural Gas Plant Liquids	Crude Oil <sup>a</sup>	Petroleum Products	Total	Crude Oil <sup>a</sup>	Petroleum Products	Total
1973 .....	5.800	4.049	5.817	5.983	5.897	5.800	5.752	5.752
1974 .....	5.800	4.011	5.827	5.959	5.884	5.800	5.773	5.774
1975 .....	5.800	3.984	5.821	5.935	5.858	5.800	5.747	5.748
1976 .....	5.800	3.964	5.808	5.980	5.856	5.800	5.743	5.745
1977 .....	5.800	3.941	5.810	5.908	5.834	5.800	5.796	5.797
1978 .....	5.800	3.925	5.802	5.955	5.839	5.800	5.814	5.808
1979 .....	5.800	3.955	5.810	5.811	5.810	5.800	5.864	5.832
1980 .....	5.800	3.914	5.812	5.748	5.796	5.800	5.841	5.820
1981 .....	5.800	3.930	5.818	5.659	5.775	5.800	5.837	5.821
1982 .....	5.800	3.872	5.826	5.664	5.775	5.800	5.829	5.820
1983 .....	5.800	3.839	5.825	5.677	5.774	5.800	5.800	5.800
1984 .....	5.800	3.812	5.823	5.613	5.745	5.800	5.867	5.850
1985 .....	5.800	3.815	5.832	5.572	5.736	5.800	5.819	5.814
1986 .....	5.800	3.797	5.903	5.624	5.808	5.800	5.839	5.832
1987 .....	5.800	3.804	5.901	5.599	5.820	5.800	5.860	5.858
1988 .....	5.800	3.800	5.900	5.618	5.820	5.800	5.842	5.840
1989 .....	5.800	3.826	5.906	5.641	5.833	5.800	5.869	5.857
1990 .....	5.800	3.822	5.934	5.614	5.849	5.800	5.838	5.833
1991 .....	5.800	3.807	5.948	5.636	5.873	5.800	5.827	5.823
1992 .....	5.800	3.804	5.953	5.623	5.877	5.800	5.774	5.777
1993 .....	5.800	3.801	5.954	5.620	5.883	5.800	5.777	5.779
1994 .....	5.800	3.794	5.950	5.534	5.861	5.800	5.777	5.779
1995 .....	5.800	3.796	5.938	5.483	5.855	5.800	5.740	5.746
1996 .....	5.800	3.777	5.947	5.468	5.847	5.800	5.728	5.736
1997 .....	5.800	3.762	5.954	5.469	5.862	5.800	5.726	5.734
1998 .....	5.800	3.769	5.953	5.462	5.861	5.800	5.710	5.720
1999 .....	5.800	3.744	5.942	5.421	5.840	5.800	5.684	5.699
2000 .....	5.800	3.733	5.959	5.432	5.849	5.800	5.651	5.658
2001 .....	5.800	3.735	5.976	5.443	5.862	5.800	5.751	5.752
2002 .....	5.800	3.729	5.971	5.451	5.863	5.800	5.687	5.688
2003 .....	5.800	3.739	5.970	5.438	5.857	5.800	5.739	5.740
2004 .....	5.800	3.724	5.981	5.475	5.863	5.800	5.753	5.754
2005 .....	5.800	3.724	5.977	5.474	5.845	5.800	5.741	5.743
2006 .....	5.800	3.712	5.980	5.454	5.842	5.800	5.723	5.724
2007 .....	5.800	3.701	5.985	5.503	5.862	5.800	5.749	5.750
2008 .....	5.800	3.706	5.990	5.479	5.866	5.800	5.762	5.762
2009 .....	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 <sup>E</sup> .....	5.800	3.672	6.008	5.507	5.896	5.800	5.596	5.599

<sup>a</sup> Includes lease condensate.

E=Estimate.

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 A3. Approximate Heat Content of Petroleum Consumption and Biofuels Production**  
(Million Btu per Barrel)

	Total Petroleum <sup>a</sup> Consumption by Sector						Liquefied Petroleum Gases Consumption <sup>f</sup>	Motor Gasoline Consumption <sup>g</sup>	Fuel Ethanol <sup>h</sup>	Fuel Ethanol Feed-stock Factor <sup>i</sup>	Biodiesel	Biodiesel Feed-stock Factor <sup>i</sup>
	Residential	Commercial <sup>b</sup>	Industrial <sup>b</sup>	Transportation <sup>b,c</sup>	Electric Power <sup>d,e</sup>	Total <sup>b,c</sup>						
1973	5.258	5.689	5.557	5.396	6.245	5.515	3.746	5.253	NA	NA	NA	NA
1974	5.253	5.683	5.525	5.394	6.238	5.504	3.730	5.253	NA	NA	NA	NA
1975	5.253	5.649	5.513	5.392	6.250	5.494	3.715	5.253	NA	NA	NA	NA
1976	5.277	5.672	5.523	5.396	6.251	5.504	3.711	5.253	NA	NA	NA	NA
1977	5.285	5.682	5.539	5.401	6.249	5.518	3.677	5.253	NA	NA	NA	NA
1978	5.287	5.665	5.536	5.405	6.251	5.519	3.669	5.253	NA	NA	NA	NA
1979	5.365	5.717	5.409	5.429	6.258	5.494	3.680	5.253	NA	NA	NA	NA
1980	5.321	5.751	5.366	5.441	6.254	5.479	3.674	5.253	3.563	6.586	NA	NA
1981	5.283	5.693	5.299	5.433	6.258	5.448	3.643	5.253	3.563	6.562	NA	NA
1982	5.266	5.698	5.247	5.423	6.258	5.415	3.615	5.253	3.563	6.539	NA	NA
1983	5.140	5.591	5.254	5.416	6.255	5.406	3.614	5.253	3.563	6.515	NA	NA
1984	5.307	5.657	5.207	5.418	6.251	5.395	3.599	5.253	3.563	6.492	NA	NA
1985	5.263	5.598	5.199	5.423	6.247	5.387	3.603	5.253	3.563	6.469	NA	NA
1986	5.268	5.632	5.269	5.426	6.257	5.418	3.640	5.253	3.563	6.446	NA	NA
1987	5.239	5.594	5.233	5.429	6.249	5.403	3.659	5.253	3.563	6.423	NA	NA
1988	5.257	5.597	5.228	5.433	6.250	5.410	3.652	5.253	3.563	6.400	NA	NA
1989	5.194	5.549	5.219	5.438	6.240	5.410	3.683	5.253	3.563	6.377	NA	NA
1990	5.145	5.553	5.253	5.442	6.244	5.411	3.625	5.253	3.563	6.355	NA	NA
1991	5.094	5.528	5.167	5.441	6.246	5.384	3.614	5.253	3.563	6.332	NA	NA
1992	5.124	5.513	5.168	5.443	6.238	5.378	3.624	5.253	3.563	6.309	NA	NA
1993	5.102	5.505	5.178	5.436	6.230	5.379	3.606	5.253	3.563	6.287	NA	NA
1994	5.098	5.515	5.150	5.424	6.213	5.361	3.635	5.230	3.563	6.264	NA	NA
1995	5.063	5.478	5.121	5.417	6.188	5.341	3.623	5.215	3.563	6.242	NA	NA
1996	4.998	5.433	5.114	5.420	6.195	5.336	3.613	5.216	3.563	6.220	NA	NA
1997	4.989	5.391	5.120	5.416	6.199	5.336	3.616	5.213	3.563	6.198	NA	NA
1998	4.975	5.365	5.137	5.413	6.210	5.349	3.614	5.212	3.563	6.176	NA	NA
1999	4.902	5.291	5.092	5.413	6.205	5.328	3.616	5.211	3.563	6.167	NA	NA
2000	4.908	5.316	5.057	5.422	6.189	5.326	3.607	5.210	3.563	6.159	NA	NA
2001	4.937	5.325	5.142	5.412	6.199	5.345	3.614	5.210	3.563	6.151	5.359	5.433
2002	4.886	5.293	5.093	5.411	6.173	5.324	3.613	5.208	3.563	6.143	5.359	5.433
2003	4.907	5.307	5.142	5.409	6.182	5.340	3.629	5.207	3.563	6.116	5.359	5.433
2004	4.953	5.328	5.144	5.421	6.192	5.350	3.618	5.215	3.563	6.089	5.359	5.433
2005	4.916	5.364	5.178	5.427	6.188	5.365	3.620	5.218	3.563	6.063	5.359	5.433
2006	4.894	5.310	5.160	5.431	6.143	5.353	3.605	5.218	3.563	6.036	5.359	5.433
2007	4.850	5.298	5.127	5.434	6.151	5.346	3.591	5.219	3.563	6.009	5.359	5.433
2008	4.732	5.175	5.149	5.426	6.123	5.339	3.600	5.218	3.563	5.983	5.359	5.433
2009	4.691	5.266	5.018	5.414	6.105	5.301	3.558	5.218	3.563	5.957	5.359	5.433
2010	4.692	5.263	4.988	5.421	6.084	5.297	3.557	5.218	3.561	5.931	5.359	5.433
2011	<sup>E</sup> 4.676	<sup>E</sup> 5.243	<sup>E</sup> 4.952	<sup>E</sup> 5.424	<sup>E</sup> 6.058	<sup>E</sup> 5.286	<sup>E</sup> 3.541	<sup>E</sup> 5.218	<sup>E</sup> 3.560	<sup>E</sup> 5.905	<sup>E</sup> 5.359	<sup>E</sup> 5.433
2012	<sup>E</sup> 4.676	<sup>E</sup> 5.243	<sup>E</sup> 4.952	<sup>E</sup> 5.424	<sup>E</sup> 6.058	<sup>E</sup> 5.286	<sup>E</sup> 3.541	<sup>E</sup> 5.218	<sup>E</sup> 3.560	<sup>E</sup> 5.880	<sup>E</sup> 5.359	<sup>E</sup> 5.433
2013	<sup>E</sup> 4.676	<sup>E</sup> 5.243	<sup>E</sup> 4.952	<sup>E</sup> 5.424	<sup>E</sup> 6.058	<sup>E</sup> 5.286	<sup>E</sup> 3.541	<sup>E</sup> 5.218	<sup>E</sup> 3.560	<sup>E</sup> 5.880	<sup>E</sup> 5.359	<sup>E</sup> 5.433

<sup>a</sup> Petroleum products supplied, including natural gas plant liquids and crude oil burned directly as fuel. Quantity-weighted averages of the petroleum products included in each category are calculated by using heat content values shown in Table A1.

<sup>b</sup> Beginning in 1993, includes fuel ethanol blended into motor gasoline.

<sup>c</sup> Beginning in 2009, includes renewable diesel fuel (including biodiesel) blended into distillate fuel oil.

<sup>d</sup> 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.

<sup>e</sup> Electric power sector factors are weighted average heat contents for distillate fuel oil, petroleum coke, and residual fuel oil; they exclude other liquids.

<sup>f</sup> Quantity-weighted averages of the major components of liquefied petroleum gases are calculated by using heat content values shown in Table A1.

<sup>g</sup> There is a discontinuity in this time series between 1993 and 1994; beginning in 1994, the single constant factor is replaced by a quantity-weighted factor—quantity-weighted averages of the major components of motor gasoline, including fuel ethanol, are calculated by using heat content values shown in Table A1.

<sup>h</sup> Includes denaturant (petroleum added to ethanol to make it undrinkable). Fuel ethanol factors are weighted average heat contents for undenatured ethanol (3.539 million Btu per barrel), pentanes plus used as denaturant (4.620 million Btu per barrel), and conventional motor gasoline and motor gasoline blending components used as denaturant (5.253 million Btu per barrel). The factor for 2009 is used as the estimated factor for 1980–2008.

<sup>i</sup> Corn input to the production of undenatured ethanol (million Btu corn per barrel undenatured ethanol), used as the factor to estimate total biomass inputs to the production of undenatured ethanol. Observed ethanol yields (gallons undenatured ethanol per bushel of corn) are 2.5 in 1980, 2.666 in 1998, 2.68 in 2002, and 2.764 in 2009; yields in other years are estimated. Corn is assumed to have a gross heat content of 0.392 million Btu per bushel. Undenatured ethanol is assumed to have a gross heat content of 3.539 million Btu per barrel.

<sup>j</sup> Soybean oil input to the production of biodiesel (million Btu soybean oil per barrel biodiesel), used as the factor to estimate total biomass inputs to the production of biodiesel. It is assumed that 7.65 pounds of soybean oil are needed to produce one gallon of biodiesel, and 5.433 million Btu of soybean oil are needed to produce one barrel of biodiesel. Soybean oil is assumed to have a gross heat content of 16,909 Btu per pound, or 5.483 million Btu per barrel. Biodiesel is assumed to have a gross heat content of 17,253 Btu per pound, or 5.359 million Btu per barrel.

<sup>E</sup> = Estimate. NA = Not available.

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

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

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 <sup>a</sup>			Imports	Exports
	Marketed	Dry	End-Use Sectors <sup>b</sup>	Electric Power Sector <sup>c</sup>	Total		
1973 .....	1,093	1,021	1,020	1,024	1,021	1,026	1,023
1974 .....	1,097	1,024	1,024	1,022	1,024	1,027	1,016
1975 .....	1,095	1,021	1,020	1,026	1,021	1,026	1,014
1976 .....	1,093	1,020	1,019	1,023	1,020	1,025	1,013
1977 .....	1,093	1,021	1,019	1,029	1,021	1,026	1,013
1978 .....	1,088	1,019	1,016	1,034	1,019	1,030	1,013
1979 .....	1,092	1,021	1,018	1,035	1,021	1,037	1,013
1980 .....	1,098	1,026	1,024	1,035	1,026	1,022	1,013
1981 .....	1,103	1,027	1,025	1,035	1,027	1,014	1,011
1982 .....	1,107	1,028	1,026	1,036	1,028	1,018	1,011
1983 .....	1,115	1,031	1,031	1,030	1,031	1,024	1,010
1984 .....	1,109	1,031	1,030	1,035	1,031	1,005	1,010
1985 .....	1,112	1,032	1,031	1,038	1,032	1,002	1,011
1986 .....	1,110	1,030	1,029	1,034	1,030	997	1,008
1987 .....	1,112	1,031	1,031	1,032	1,031	999	1,011
1988 .....	1,109	1,029	1,029	1,028	1,029	1,002	1,018
1989 .....	1,107	1,031	1,031	<sup>c</sup> 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 .....	1,094	1,022	1,022	1,021	1,022	1,025	1,009
2012 .....	<sup>E</sup> 1,094	<sup>E</sup> 1,022	<sup>E</sup> 1,022	<sup>E</sup> 1,021	<sup>E</sup> 1,022	<sup>E</sup> 1,025	<sup>E</sup> 1,009

<sup>a</sup> Consumption factors are for natural gas, plus a small amount of supplemental gaseous fuels.

<sup>b</sup> Residential, commercial, industrial, and transportation sectors.

<sup>c</sup> 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.

<sup>E</sup>=Estimate.

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 A5. Approximate Heat Content of Coal and Coal Coke**  
(Million Btu per Short Ton)

	Coal									Coal Coke
	Production <sup>a</sup>	Waste Coal Supplied <sup>b</sup>	Consumption					Imports	Exports	
			Residential and Commercial Sectors	Industrial Sector		Electric Power Sector <sup>d,e</sup>	Total			
				Coke Plants	Other <sup>c</sup>					
1973	23.376	NA	22.831	26.780	22.586	22.246	23.057	25.000	26.596	24.800
1974	23.072	NA	22.479	26.778	22.419	21.781	22.677	25.000	26.700	24.800
1975	22.897	NA	22.261	26.782	22.436	21.642	22.506	25.000	26.562	24.800
1976	22.855	NA	22.774	26.781	22.530	21.679	22.498	25.000	26.601	24.800
1977	22.597	NA	22.919	26.787	22.322	21.508	22.265	25.000	26.548	24.800
1978	22.248	NA	22.466	26.789	22.207	21.275	22.017	25.000	26.478	24.800
1979	22.454	NA	22.242	26.788	22.452	21.364	22.100	25.000	26.548	24.800
1980	22.415	NA	22.543	26.790	22.690	21.295	21.947	25.000	26.384	24.800
1981	22.308	NA	22.474	26.794	22.585	21.085	21.713	25.000	26.160	24.800
1982	22.239	NA	22.695	26.797	22.712	21.194	21.674	25.000	26.223	24.800
1983	22.052	NA	22.775	26.798	22.691	21.133	21.576	25.000	26.291	24.800
1984	22.010	NA	22.844	26.799	22.543	21.101	21.573	25.000	26.402	24.800
1985	21.870	NA	22.646	26.798	22.020	20.959	21.366	25.000	26.307	24.800
1986	21.913	NA	22.947	26.798	22.198	21.084	21.462	25.000	26.292	24.800
1987	21.922	NA	23.404	26.799	22.381	21.136	21.517	25.000	26.291	24.800
1988	21.823	NA	23.571	26.799	22.360	20.900	21.328	25.000	26.299	24.800
1989	21.765	<sup>b</sup> 10.391	23.650	26.800	22.347	<sup>d</sup> 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	<sup>a</sup> 20.772	12.169	24.909	27.426	22.622	20.337	20.671	25.000	25.998	24.800
2002	20.673	12.165	22.962	27.426	22.562	20.238	20.541	25.000	26.062	24.800
2003	20.499	12.360	22.242	27.425	22.468	20.082	20.387	25.000	25.972	24.800
2004	20.424	12.266	22.324	27.426	22.473	19.980	20.290	25.000	26.108	24.800
2005	20.348	12.093	22.342	26.279	22.178	19.988	20.246	25.000	25.494	24.800
2006	20.310	12.080	22.066	26.271	22.050	19.931	20.181	25.000	25.453	24.800
2007	20.340	12.090	22.069	26.329	22.371	19.909	20.168	25.000	25.466	24.800
2008	20.208	12.121	21.887	26.281	22.348	19.713	19.977	25.000	25.399	24.800
2009	19.963	12.076	22.059	26.334	21.893	19.521	19.742	25.000	25.633	24.800
2010	20.173	11.960	21.826	26.296	21.005	19.623	19.829	25.000	25.713	24.800
2011	20.142	11.604	21.179	26.300	21.738	19.341	19.605	25.000	25.645	24.800
2012	<sup>E</sup> 20.142	<sup>E</sup> 11.604	<sup>E</sup> 21.179	<sup>E</sup> 26.300	<sup>E</sup> 21.738	<sup>E</sup> 19.341	<sup>E</sup> 19.605	<sup>E</sup> 25.000	<sup>E</sup> 25.645	<sup>E</sup> 24.800

<sup>a</sup> 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).

<sup>b</sup> 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."

<sup>c</sup> Includes transportation. Excludes coal synfuel plants.

<sup>d</sup> 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.

<sup>e</sup> Electric power sector factors are for anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and, beginning in 1998, coal synfuel.

<sup>E</sup>=Estimate. NA=Not available.

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

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

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 <sup>a</sup> for Electricity Net Generation						Heat Content <sup>j</sup> of Electricity <sup>k</sup>
	Fossil Fuels <sup>b</sup>				Nuclear <sup>h</sup>	Noncombustible Renewable Energy <sup>g,i</sup>	
	Coal <sup>c</sup>	Petroleum <sup>d</sup>	Natural Gas <sup>e</sup>	Total Fossil Fuels <sup>f,g</sup>			
1973	NA	NA	NA	10,389	10,903	10,389	3,412
1974	NA	NA	NA	10,442	11,161	10,442	3,412
1975	NA	NA	NA	10,406	11,013	10,406	3,412
1976	NA	NA	NA	10,373	11,047	10,373	3,412
1977	NA	NA	NA	10,435	10,769	10,435	3,412
1978	NA	NA	NA	10,361	10,941	10,361	3,412
1979	NA	NA	NA	10,353	10,879	10,353	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	<sup>b</sup> 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	10,421	10,125	3,412
2004	10,331	10,571	8,647	10,016	10,427	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	10,436	9,919	3,412
2007	10,375	10,794	8,403	9,884	10,485	9,884	3,412
2008	10,378	11,015	8,305	9,854	10,453	9,854	3,412
2009	10,414	10,923	8,160	9,760	10,460	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	<sup>E</sup> 10,444	<sup>E</sup> 10,829	<sup>E</sup> 8,152	<sup>E</sup> 9,716	<sup>E</sup> 10,464	<sup>E</sup> 9,716	3,412

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

<sup>b</sup> 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.

<sup>c</sup> Includes anthracite, bituminous coal, subbituminous coal, lignite, and, beginning in 2002, waste coal and coal synfuel.

<sup>d</sup> Includes distillate fuel oil, residual fuel oil, jet fuel, kerosene, petroleum coke, and waste oil.

<sup>e</sup> Includes natural gas and supplemental gaseous fuels.

<sup>f</sup> 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).

<sup>g</sup> 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.

<sup>h</sup> Used as the thermal conversion factor for nuclear electricity net generation.

<sup>i</sup> 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.

<sup>j</sup> See "Heat Content" in Glossary.

<sup>k</sup> 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.

<sup>E</sup>=Estimate. NA=Not available.

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

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

# Thermal Conversion Factor Source Documentation

## Approximate Heat Content of Petroleum and Natural Gas Plant Liquids

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

**Aviation Gasoline.** EIA adopted the thermal conversion factor of 5.048 million Btu per barrel as adopted by the Bureau of Mines from the Texas Eastern Transmission Corporation publication *Competition and Growth in American Energy Markets 1947–1985*, a 1968 release of historical and projected statistics.

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

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

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

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

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

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

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

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

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

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

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

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

**Liquefied Petroleum Gases Consumption.** Calculated annually by EIA as the average of the thermal conversion factors for all liquefied petroleum gases consumed (see Table A1) weighted by the quantities consumed. The component products of liquefied petroleum gases are ethane (including ethylene), propane (including propylene), normal butane (including butylene), butane-propane mixtures, ethane-propane mixtures, and isobutane. For 1973–1980, quantities consumed are from EIA, Energy Data Reports, “Petroleum Statement, Annual,” Table 1. For 1981 forward, quantities consumed are from EIA, *Petroleum Supply Annual*, Table 2.

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

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

**Motor Gasoline Consumption.** 1973–1993: EIA adopted the Bureau of Mines thermal conversion factor of 5.253 million Btu per barrel for “Gasoline, Motor Fuel” as published by the Texas Eastern Transmission Corporation in Appendix V of *Competition and Growth in American Energy Markets 1947–1985*, a 1968 release of historical and projected statistics. 1994 forward: EIA calculated national annual quantity-weighted average conversion factors for conventional, reformulated, and oxygenated motor gasolines (see Table A3). The factor for conventional motor gasoline is 5.253 million Btu per barrel, as used for

previous years. The factors for reformulated and oxygenated gasolines, both currently 5.150 million Btu per barrel, are based on data published in Environmental Protection Agency, Office of Mobile Sources, National Vehicle and Fuel Emissions Laboratory report EPA 420-F-95-003, "Fuel Economy Impact Analysis of Reformulated Gasoline." See **Fuel Ethanol (Denatured)**.

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

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

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

**Petrochemical Feedstocks, Naphtha less than 401° F.** Assumed by EIA to be 5.248 million Btu per barrel, equal to the thermal conversion factor for special naphthas. See **Special Naphthas**.

**Petrochemical Feedstocks, Other Oils equal to or greater than 401° F.** Assumed by EIA to be 5.825 million Btu per barrel, equal to the thermal conversion factor for distillate fuel oil. See **Distillate Fuel Oil**.

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

**Petroleum Coke.** EIA adopted the thermal conversion factor of 6.024 million Btu per barrel as reported in Btu per short ton in the Bureau of Mines internal memorandum, "Bureau of Mines Standard Average Heating Values of Various Fuels, Adopted January 3, 1950." The Bureau of Mines calculated this factor by dividing 30.120 million Btu per short ton, as given in the referenced Bureau of Mines internal memorandum, by 5.0 barrels per short ton, as given in the Bureau of Mines Form 6-1300-M and successor EIA forms.

**Petroleum Consumption, Commercial Sector.** Calculated annually by EIA as the average of the thermal conversion factors for all petroleum products consumed by the commercial sector weighted by the estimated quantities consumed by the commercial sector. The quantities of petroleum products consumed by the commercial sector are estimated in the State Energy Data System—see documentation at [http://www.eia.gov/state/seds/sep\\_use/notes/use\\_petrol.pdf](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](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](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](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.** 1973–1979: EIA adopted the thermal conversion factor calculated annually by the American Gas Association (AGA) and published in *Gas Facts*, an AGA annual publication. 1980 forward: Calculated annually by EIA by dividing the total heat content of natural gas consumed by the total quantity consumed.

**Natural Gas Exports.** Calculated annually by EIA by dividing the heat content of natural gas exported by the quantity exported. For 1973–1995, data are from Form FPC-14, “Annual Report for Importers and Exporters of Natural Gas.” Beginning in 1996, data are from U.S. Department of Energy, Office of Fossil Energy, *Natural Gas Imports and Exports*.

**Natural Gas Imports.** Calculated annually by EIA by dividing the heat content of natural gas imported by the quantity imported. For 1973–1995, data are from Form FPC-14, “Annual Report for Importers and Exporters of Natural Gas.” Beginning in 1996, data are from U.S. Department of Energy, Office of Fossil Energy, *Natural Gas Imports and Exports*.

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

**Natural Gas Production, Marketed.** Calculated annually by EIA by dividing the heat content of dry natural gas produced (see **Natural Gas Production, Dry**) and natural gas plant liquids produced (see **Natural Gas Plant Liquids Production**) by the total quantity of marketed natural gas produced.

## Approximate Heat Content of Coal and Coal Coke

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

**Coal Consumption, Electric Power Sector.** Calculated annually by EIA by dividing the heat content of coal consumed by the electric power sector by the quantity consumed. Data are from Form EIA-923, “Power Plant Operations Report,” and predecessor forms.

**Coal Consumption, Industrial Sector, Coke Plants.** Calculated annually by EIA by dividing the heat content of coal consumed by coke plants by the quantity consumed. Data are from Form EIA-5, “Quarterly Coal Consumption and Quality Report—Coke Plants.”

**Coal Consumption, Industrial Sector, Other.** Calculated annually by EIA by dividing the heat content of coal

consumed by manufacturing plants by the quantity consumed. Data are from Form EIA-3, “Quarterly Coal Consumption and Quality Report—Manufacturing Plants.”

**Coal Consumption, Residential and Commercial Sectors.** Calculated annually by EIA by dividing the heat content of coal consumed by the residential and commercial sectors by the quantity consumed. Through 1999, data are from Form EIA-6, “Coal Distribution Report.” Beginning in 2000, data are for commercial combined-heat-and-power (CHP) plants from Form EIA-923, “Power Plant Operations Report,” and predecessor forms.

**Coal Consumption, Total.** Calculated annually by EIA by dividing the total heat content of coal consumed by all sectors by the total quantity consumed.

**Coal Exports.** Calculated annually by EIA by dividing the heat content of steam coal and metallurgical coal exported by the quantity exported. Data are from U.S. Department of Commerce, Bureau of the Census, “Monthly Report EM 545.”

**Coal Imports.** Assumed by EIA to be 25.000 million Btu per short ton.

**Coal Production.** Calculated annually by EIA to balance the heat content of coal supply (production and imports) and the heat content of coal disposition (exports, stock change, and consumption).

**Waste Coal Supplied.** Calculated annually by EIA by dividing the total heat content of waste coal supplied by the quantity supplied. For 1989–1997, data are from Form EIA-867, “Annual Nonutility Power Producer Report.” For 1998–2000, data are from Form EIA-860B, “Annual Electric Generator Report—Nonutility.” For 2001 forward, data are from Form EIA-3, “Quarterly Coal Consumption and Quality Report—Manufacturing Plants”; Form EIA-923, “Power Plant Operations Report”; and predecessor forms.

## Approximate Heat Rates for Electricity

**Electricity Net Generation, 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 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 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.** 1973–1984: Calculated annually by dividing the total heat content consumed in nuclear generating units by the total (net) electricity generated by nuclear generating units. The heat content and electricity generation were reported on Form FERC-1, “Annual Report of Major Electric Utilities, Licensees, and Others”; Form EIA-412, “Annual Report of Public Electric Utilities”; and predecessor forms. For 1982, the factors were published in EIA, *Historical Plant Cost and Annual Production Expenses for Selected Electric Plants 1982*, page 215. For 1983 and 1984, the factors were published in EIA, *Electric Plant Cost and Power Production Expenses 1991*, Table 13. 1985 forward: Calculated annually by EIA by using the heat rate 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 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.** 1973–1988: The weighted annual average heat rate for fossil-fueled steam-electric power plants in the United States, as published in EIA, *Electric Plant Cost and Power Production Expenses 1991*, Table 9. 1989–2000: Calculated annually by EIA by using the heat rate data reported on Form EIA-860, “Annual Electric Generator Report” (and predecessor forms); and net generation data reported on Form EIA-759, “Monthly Power Plant Report.” The computation includes data for all electric utility steam-electric plants using fossil fuels. 2001 forward: Calculated annually by EIA by using fuel consumption and net generation data reported on Form EIA-923, “Power Plant Operations Report,” and predecessor forms. The computation includes data for 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).

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# Appendix B

## Metric Conversion Factors, Metric Prefixes, and Other Physical Conversion Factors

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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
<b>Mass</b>	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 <sup>a</sup>	kilograms (kg)
	1 pound uranium oxide (lb U <sub>3</sub> O <sub>8</sub> )	=	0.384 647 <sup>b</sup>	kilograms uranium (kgU)
	1 ounce, avoirdupois (avdp oz)	=	28.349 52	grams (g)
<b>Volume</b>	1 barrel of oil (bbl)	=	0.158 987 3	cubic meters (m <sup>3</sup> )
	1 cubic yard (yd <sup>3</sup> )	=	0.764 555	cubic meters (m <sup>3</sup> )
	1 cubic foot (ft <sup>3</sup> )	=	0.028 316 85	cubic meters (m <sup>3</sup> )
	1 U.S. gallon (gal)	=	3.785 412	liters (L)
	1 ounce, fluid (fl oz)	=	29.573 53	milliliters (mL)
	1 cubic inch (in <sup>3</sup> )	=	16.387 06	milliliters (mL)
<b>Length</b>	1 mile (mi)	=	1.609 344 <sup>a</sup>	kilometers (km)
	1 yard (yd)	=	0.914 4 <sup>a</sup>	meters (m)
	1 foot (ft)	=	0.304 8 <sup>a</sup>	meters (m)
	1 inch (in)	=	2.54 <sup>a</sup>	centimeters (cm)
<b>Area</b>	1 acre	=	0.404 69	hectares (ha)
	1 square mile (mi <sup>2</sup> )	=	2.589 988	square kilometers (km <sup>2</sup> )
	1 square yard (yd <sup>2</sup> )	=	0.836 127 4	square meters (m <sup>2</sup> )
	1 square foot (ft <sup>2</sup> )	=	0.092 903 04 <sup>a</sup>	square meters (m <sup>2</sup> )
	1 square inch (in <sup>2</sup> )	=	6.451 6 <sup>a</sup>	square centimeters (cm <sup>2</sup> )
<b>Energy</b>	1 British thermal unit (Btu) <sup>c</sup>	=	1,055.055 852 62 <sup>a</sup>	joules (J)
	1 calorie (cal)	=	4.186 8 <sup>a</sup>	joules (J)
	1 kilowatthour (kWh)	=	3.6 <sup>a</sup>	megajoules (MJ)
<b>Temperature<sup>d</sup></b>	32 degrees Fahrenheit (°F)	=	0 <sup>a</sup>	degrees Celsius (°C)
	212 degrees Fahrenheit (°F)	=	100 <sup>a</sup>	degrees Celsius (°C)

<sup>a</sup>Exact conversion.

<sup>b</sup>Calculated by the U.S. Energy Information Administration.

<sup>c</sup>The Btu used in this table is the International Table Btu adopted by the Fifth International Conference on Properties of Steam, London, 1956.

<sup>d</sup>To 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 <sup>1</sup>	deka	da	10 <sup>-1</sup>	deci	d
10 <sup>2</sup>	hecto	h	10 <sup>-2</sup>	centi	c
10 <sup>3</sup>	kilo	k	10 <sup>-3</sup>	milli	m
10 <sup>6</sup>	mega	M	10 <sup>-6</sup>	micro	μ
10 <sup>9</sup>	giga	G	10 <sup>-9</sup>	nano	n
10 <sup>12</sup>	tera	T	10 <sup>-12</sup>	pico	p
10 <sup>15</sup>	peta	P	10 <sup>-15</sup>	femto	f
10 <sup>18</sup>	exa	E	10 <sup>-18</sup>	atto	a
10 <sup>21</sup>	zetta	Z	10 <sup>-21</sup>	zepto	z
10 <sup>24</sup>	yotta	Y	10 <sup>-24</sup>	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
<b>Petroleum</b>	1 barrel (bbl)	=	42 <sup>a</sup> U.S. gallons (gal)
<b>Coal</b>	1 short ton	=	2,000 <sup>a</sup> pounds (lb)
	1 long ton	=	2,240 <sup>a</sup> pounds (lb)
	1 metric ton (t)	=	1,000 <sup>a</sup> kilograms (kg)
<b>Wood</b>	1 cord (cd)	=	1.25 <sup>b</sup> shorts tons
	1 cord (cd)	=	128 <sup>a</sup> cubic feet (ft <sup>3</sup> )

<sup>a</sup>Exact conversion.

<sup>b</sup>Calculated 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 volume of gas needed as a permanent inventory to maintain adequate underground storage reservoir pressures and deliverability rates throughout the withdrawal season. All native gas is included in the base gas volume.

**Biodiesel:** A fuel typically made from soybean, canola, or other vegetable oils; animal fats; and recycled grease. It can serve as a substitute for **petroleum-derived diesel fuel** or **distillate fuel oil**. For U.S. Energy Information Administration reporting, it is a fuel composed of mono-alkyl esters of long chain fatty acids derived from vegetable oils or animal fats, designated B100, and meeting the requirements of ASTM (American Society for Testing & Materials) D 6751.

**Biofuels:** Liquid fuels and blending components produced from **biomass** (plant) feedstocks, used primarily for transportation. See **Biodiesel** and **Fuel Ethanol**.

**Biogenic:** Produced by biological processes of living organisms. *Note:* EIA uses the term "biogenic" to refer only to organic nonfossil material of biological origin.

**Biomass:** Organic non-fossil material of biological origin constituting a **renewable energy** source. See **Biodiesel**,

## **Biofuels, Biomass Waste, Fuel Ethanol, and Wood and Wood-Derived Fuels.**

**Biomass Waste:** Organic non-fossil material of biological origin that is a byproduct or a discarded product. "Biomass waste" includes municipal solid waste from **biogenic** sources, landfill gas, sludge waste, agricultural crop byproducts, straw, and other **biomass** solids, liquids, and gases; but excludes **wood and wood-derived fuels** (including **black liquor**), **biofuels** feedstock, **biodiesel**, and **fuel ethanol**. **Note:** EIA "biomass waste" data also include energy crops grown specifically for energy production, which would not normally constitute waste.

**Bituminous Coal:** A dense **coal**, usually black, sometimes dark brown, often with well-defined bands of bright and dull material, used primarily as fuel in steam-electric power generation, with substantial quantities also used for heat and power applications in manufacturing and to make **coke**. Bituminous coal is the most abundant coal in active U.S. mining regions. Its moisture content usually is less than 20 percent. The heat content of bituminous coal ranges from 21 to 30 million **Btu** per **short ton** on a moist, mineral-matter-free basis. The heat content of bituminous coal consumed in the United States averages 24 million Btu per short ton, on the as-received basis (i.e., containing both inherent moisture and mineral matter).

**Black Liquor:** A byproduct of the paper production process, alkaline spent liquor, that can be used as a source of energy. Alkaline spent liquor is removed from the digesters in the process of chemically pulping wood. After evaporation, the residual "black" liquor is burned as a fuel in a recovery furnace that permits the recovery of certain basic chemicals.

**British Thermal Unit (Btu):** The quantity of heat required to raise the temperature of 1 pound of liquid water by 1 degree Fahrenheit at the temperature at which water has its greatest density (approximately 39 degrees Fahrenheit). See **Heat Content**.

**Btu:** See **British Thermal Unit**.

**Btu Conversion Factor:** A factor for converting **energy** data between one unit of measurement and **British thermal units (Btu)**. Btu conversion factors are generally used to convert energy data from physical units of measure (such as **barrels**, **cubic feet**, or **short tons**) into the energy-equivalent measure of Btu. (See <http://www.eia.gov/totalenergy/data/monthly/#appendices> for further information on Btu conversion factors.)

**Butane:** A normally gaseous straight-chain or branched-chain hydrocarbon (C<sub>4</sub>H<sub>10</sub>). 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 (C<sub>4</sub>H<sub>8</sub>) 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 (CO<sub>2</sub>):** 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/neic/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 Gasoline:** Finished motor gasoline not included in the oxygenated or reformulated gasoline categories. *Note:* This category excludes reformulated gasoline blendstock for oxygenate blending (RBOB) as well as other blendstock.

**Conventional Hydroelectric Power:** Hydroelectric power generated from flowing water that is not created by **hydroelectric pumped storage**.

**Conversion Factor:** A factor for converting data between one unit of measurement and another (such as between **short tons** and **British thermal units**, or between **barrels** and **gallons**). (See <http://www.eia.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 (C<sub>2</sub>H<sub>6</sub>). 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 (C<sub>2</sub>H<sub>5</sub>OH):** 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 (C<sub>2</sub>H<sub>4</sub>) recovered from refinery processes or petrochemical processes.

**Exploratory Well:** A well drilled to find and produce oil or gas in an area previously considered an unproductive area, to find a new reservoir in a known field (i.e., one previously found to be producing oil or gas in another reservoir), or to extend the limit of a known oil or gas reservoir.

**Exports:** Shipments of goods from within the 50 States and the District of Columbia to U.S. possessions and territories or to foreign countries.

**Extraction Loss:** The reduction in volume of natural gas due to the removal of natural gas liquid constituents, such as ethane, propane, and butane, at natural gas processing plants.

**Federal Energy Administration (FEA):** A predecessor of the U.S. Energy Information Administration.

**Federal Energy Regulatory Commission (FERC):** The Federal agency with jurisdiction over interstate electricity sales, wholesale electric rates, hydroelectric licensing, natural gas pricing, oil pipeline rates, and gas pipeline certification. FERC is an independent regulatory agency within the U.S. Department of Energy and is the successor to the Federal Power Commission.

**Federal Power Commission (FPC):** The predecessor agency of the Federal Energy Regulatory Commission. The Federal Power Commission was created by an Act of Congress under the Federal Water Power Act on June 10, 1920. It was charged originally with regulating the electric power and natural gas industries. It was abolished on September 30, 1977, when the U.S. Department of Energy was created. Its functions were divided between the U.S. Department of Energy and the Federal Energy Regulatory Commission, an independent regulatory agency.

**First Purchase Price:** The price for domestic crude oil reported by the company that owns the crude oil the first time it is removed from the lease boundary.

**Flared Natural Gas:** Natural gas burned in flares on the base site or at gas processing plants.

**F.O.B. (Free on Board):** A sales transaction in which the seller makes the product available for pick up at a specified port or terminal at a specified price and the buyer pays for the subsequent transportation and insurance.

**Footage Drilled:** Total footage for wells in various categories, as reported for any specified period, includes (1) the deepest total depth (length of well bores) of all wells drilled from the surface, (2) the total of all bypassed footage drilled in connection with reported wells, and (3) all new footage drilled for directional sidetrack wells. Footage reported for directional sidetrack wells does not include footage in the common bore, which is reported as footage for the original well. In the case of old wells drilled deeper, the reported footage is that which was drilled below the total depth of the old well.

**Former U.S.S.R.:** See **Union of Soviet Socialist Republics (U.S.S.R.).**

**Fossil Fuel:** An energy source formed in the Earth's crust from decayed organic material, such as **petroleum, coal, and natural gas.**

**Fossil-Fueled Steam-Electric Power Plant:** An electricity generation plant in which the prime mover is a turbine rotated by high-pressure steam produced in a boiler by heat from burning fossil fuels.

**Fuel Ethanol:** **Ethanol** intended for fuel use. Fuel ethanol in the United States must be anhydrous (less than 1 percent water). Fuel ethanol is denatured (made unfit for human consumption), usually prior to transport from the ethanol production facility, by adding 2 to 5 volume percent petroleum, typically **pentanes plus** or **conventional motor gasoline**. Fuel ethanol is used principally for blending in low concentrations with **motor gasoline** as an **oxygenate** or octane enhancer. In high concentrations, it is used to fuel **alternative-fuel vehicles** specially designed for its use. See **Alternative-Fuel Vehicle, Denaturant, E85, Ethanol, Fuel Ethanol Minus Denaturant, and Oxygenates.**

**Fuel Ethanol Minus Denaturant:** An unobserved quantity of anhydrous, **biomass-derived**, undenatured **ethanol** for fuel use. The quantity is obtained by subtracting the estimated **denaturant** volume from **fuel ethanol** volume. Fuel ethanol minus denaturant is counted as **renewable energy**, while denaturant is counted as **nonrenewable fuel**. See **Denaturant, Ethanol, Fuel Ethanol, Nonrenewable Fuels, Oxygenates, and Renewable Energy.**

**Full-Power Operation:** Operation of a nuclear generating unit at 100 percent of its design capacity. Full-power operation precedes commercial operation.

**Gasohol:** A blend of finished motor gasoline containing alcohol (generally **ethanol** but sometimes methanol) at a concentration between 5.7 percent and 10 percent by volume. See **Motor Gasoline, Oxygenated**.

**Gas Well:** A well completed for the production of natural gas from one or more gas zones or reservoirs. (Wells producing both crude oil and natural gas are classified as oil wells.)

**Geothermal Energy:** Hot water or steam extracted from geothermal reservoirs in the earth's crust and used for geothermal heat pumps, water heating, or electricity generation.

**Global Warming:** An increase in the near-surface temperature of the Earth. Global warming has occurred in the distant past as the result of natural influences, but the term is today most often used to refer to the warming some scientists predict will occur as a result of increased **anthropogenic** emissions of **greenhouse gases**. See **Climate Change**.

**Global Warming Potential (GWP):** An index used to compare the relative radiative forcing of different gases without directly calculating the changes in atmospheric concentrations. GWPs are calculated as the ratio of the radiative forcing that would result from the emission of one kilogram of a **greenhouse gas** to that from the emission of one kilogram of **carbon dioxide** over a fixed period of time, such as 100 years.

**Greenhouse Gases:** Those gases, such as water vapor, **carbon dioxide**, nitrous oxide, **methane**, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulfur hexafluoride, that are transparent to solar (short-wave) radiation but opaque to long-wave (infrared) radiation, thus preventing long-wave radiant energy from leaving Earth's atmosphere. The net effect is a trapping of absorbed radiation and a tendency to warm the planet's surface.

**Gross Domestic Product (GDP):** The total value of goods and services produced by labor and property located in the United States. As long as the labor and property are located in the United States, the supplier (that is, the workers and, for property, the owners) may be either U.S. residents or residents of foreign countries.

**GT/IC:** Gas turbine and internal combustion plants.

**Heat Content:** The amount of heat energy available to be released by the transformation or use of a specified physical unit of an energy form (e.g., a ton of coal, a barrel of oil, a kilowatthour of electricity, a cubic foot of natural gas, or a pound of steam). The amount of heat energy is commonly expressed in **British thermal units (Btu)**. *Note:* Heat content of combustible energy forms can be expressed in terms of either gross heat content (higher or upper heating value) or net heat content (lower heating value), depending upon whether or not the available heat energy includes or

excludes the energy used to vaporize water (contained in the original energy form or created during the combustion process). The U.S. Energy Information Administration typically uses gross heat content values.

**Heat Rate:** A measure of generating station thermal efficiency commonly stated as **Btu per kilowatthour**. *Note:* Heat rates can be expressed as either gross or net heat rates, depending whether the electricity output is gross or net generation. Heat rates are typically expressed as net heat rates.

**Hydrocarbon:** An organic chemical compound of hydrogen and carbon in the gaseous, liquid, or solid phase. The molecular structure of hydrocarbon compounds varies from the simplest (methane, the primary constituent of natural gas) to the very heavy and very complex.

**Hydroelectric Power:** The production of electricity from the kinetic energy of falling water.

**Hydroelectric Power Plant:** A plant in which the turbine generators are driven by falling water.

**Hydroelectric Pumped Storage:** Hydroelectricity that is generated during peak load periods by using water previously pumped into an elevated storage reservoir during off-peak periods when excess generating capacity is available to do so. When additional generating capacity is needed, the water can be released from the reservoir through a conduit to turbine generators located in a power plant at a lower level.

**Hydrogen (H):** The lightest of all gases, hydrogen occurs chiefly in combination with oxygen in water. It also exists in acids, bases, **alcohols**, **petroleum**, and other **hydrocarbons**.

**Imports:** Receipts of goods into the 50 States and the District of Columbia from U.S. possessions and territories or from foreign countries.

**Independent Power Producer:** A corporation, person, agency, authority, or other legal entity or instrumentality that owns or operates facilities for the generation of electricity for use primarily by the public, and that is not an **electric utility**.

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

above-mentioned industrial activities. Various EIA programs differ in sectoral coverage—for more information see

<http://www.eia.gov/neic/datadefinitions/Guideforwebind.htm>. See **End-Use Sectors** and **Energy-Use Sectors**.

**Injections (Natural Gas):** Natural gas injected into storage reservoirs.

**Isobutane:** A normally gaseous branch-chain hydrocarbon. It is a colorless paraffinic gas that boils at a temperature of 10.9° F. It is extracted from natural gas or refinery gas streams. See **Butane**.

**Isobutylene:** An olefinic hydrocarbon recovered from refinery processes or petrochemical processes.

**Isopentane:** A saturated branched-chain hydrocarbon obtained by fractionation of natural gasoline or isomerization of normal pentane.

**Jet Fuel:** A refined petroleum product used in jet aircraft engines. It includes kerosene-type jet fuel and naphtha-type jet fuel.

**Jet Fuel, Kerosene-Type:** A kerosene-based product with a maximum distillation temperature of 400° F at the 10-percent recovery point and a final maximum boiling point of 572° F. Fuel specifications are provided in ASTM Specification D 1655 and Military Specifications MIL-T-5624P and MIL-T-83133D (Grades JP-5 and JP-8). It is used primarily for commercial turbojet and turboprop aircraft engines.

**Jet Fuel, Naphtha-Type:** A fuel in the heavy naphtha boiling range, with an average gravity of 52.8 degrees API, 20 to 90 percent distillation temperatures of 290° to 470° F and meeting Military Specification MIL-T-5624L (Grade JP-4). It is used by the military for turbojet and turboprop engines.

**Kerosene:** A petroleum distillate having a maximum distillation temperature of 401° F at the 10-percent recovery point, a final boiling point of 572° F, and a minimum flash point of 100° F. Included are the two grades designated in ASTM D3699 (No. 1-K and No. 2-K) and all grades of kerosene called range or stove oil. Kerosene is used in space heaters, cook stoves, and water heaters; it is suitable for use as an illuminant when burned in wick lamps.

**Kilowatt:** A unit of electrical power equal to 1,000 watts.

**Kilowatthour (kWh):** A measure of electricity defined as a unit of work or energy, measured as 1 kilowatt (1,000 watts) of power expended for 1 hour. One kilowatthour is equivalent to 3,412 Btu. See **Watthour**.

**Landed Costs:** The dollar-per-barrel price of crude oil at the port of discharge. Included are the charges associated

with the purchase, transporting, and insuring of a cargo from the purchase point to the port of discharge. Not included are charges incurred at the discharge port (e.g., import tariffs or fees, wharfage charges, and demurrage charges).

**Lease and Plant Fuel:** Natural gas used in well, field, and lease operations (such as gas used in drilling operations, heaters, dehydrators, and field compressors) and used as fuel in natural gas processing plants.

**Lease Condensate:** A mixture consisting primarily of pentanes and heavier hydrocarbons, which is recovered as a liquid from natural gas in lease or field separation facilities. Note: This category excludes natural gas liquids, such as butane and propane, which are recovered at natural gas processing plants or facilities.

**Lignite:** The lowest rank of coal, often referred to as brown coal, used almost exclusively as fuel for steam-electric power generation. It is brownish-black and has a high inherent moisture content, sometimes as high as 45 percent. The heat content of lignite ranges from 9 to 17 million Btu per short ton on a moist, mineral-matter-free basis. The heat content of lignite consumed in the United States averages 13 million Btu per short ton, on the as-received basis (i.e., containing both inherent moisture and mineral matter).

**Liquefied Natural Gas (LNG):** Natural gas (primarily methane) that has been liquefied by reducing its temperature to -260° F at atmospheric pressure.

**Liquefied Petroleum Gases (LPG):** Ethane, ethylene, propane, propylene, normal butane, butylene, and isobutane produced at refineries or natural gas processing plants, including plants that fractionate new natural gas plant liquids.

**Low-Power Testing:** The period of time between a nuclear generating unit's initial fuel loading date and the issuance of its operating (full-power) license. The maximum level of operation during that period is 5 percent of the unit's design thermal rating.

**Lubricants:** Substances used to reduce friction between bearing surfaces or as process materials either incorporated into other materials used as processing aids in the manufacturing of other products or as carriers of other materials. Petroleum lubricants may be produced either from distillates or residues. Other substances may be added to impart or improve certain required properties. Excluded are byproducts of lubricating oil refining, such as aromatic extracts derived from solvent extraction or tars derived from deasphalting. Included are all grades of lubricating oils from spindle oil to cylinder oil and those used in greases. Lubricant categories are paraffinic and naphthenic.

**Marketed Production (Natural Gas):** Gross withdrawals less gas used for repressuring, quantities vented and

flared, and nonhydrocarbon gases removed in treating or processing operations. Includes all quantities of gas used in field and processing operations.

**Methane:** A colorless, flammable, odorless, hydrocarbon gas (CH<sub>4</sub>) 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, (CH<sub>3</sub>)<sub>3</sub>COCH<sub>3</sub>, intended for motor gasoline blending. See **Oxygenates**.

**Methanol:** A light, volatile alcohol (CH<sub>3</sub>OH) eligible for motor gasoline blending. See **Oxygenates**.

**Miscellaneous Petroleum Products:** All finished petroleum products not classified elsewhere—for example, petrolatum, lube refining byproducts (aromatic extracts and tars), absorption oils, ram-jet fuel, petroleum rocket fuels, synthetic natural gas feedstocks, and specialty oils.

**Motor Gasoline Blending:** Mechanical mixing of **motor gasoline blending components** and **oxygenates** as required, to produce finished motor gasoline. Finished motor gasoline may be further mixed with other motor gasoline blending components or oxygenates, resulting in increased volumes of finished motor gasoline and/or changes in the formulation of finished motor gasoline (e.g., conventional motor gasoline mixed with MTBE to produce oxygenated motor gasoline).

**Motor Gasoline Blending Components:** Naphtha (e.g., straight-run gasoline, alkylate, reformate, benzene, toluene, xylene) used for blending or compounding into finished motor gasoline. These components include reformulated gasoline blendstock (RBOB) but exclude oxygenates (alcohols, ethers), butane, and pentanes plus. *Note:* oxygenates are reported as individual components and are included in the total for other hydrocarbons, hydrogens, and oxygenates.

**Motor Gasoline, Finished:** A complex mixture of relatively volatile hydrocarbons with or without small quantities of additives, blended to form a fuel suitable for use in spark-ignition. Motor gasoline, as defined in ASTM Specification D-4814 or Federal Specification VV-G-1690C, is characterized as having a boiling range of 122°F to 158°F at the 10-percent recovery point to 365°F to 374°F at the 90-percent recovery point. “Motor gasoline” includes conventional gasoline, all types of oxygenated gasoline including gasohol, and reformulated gasoline, but excludes aviation gasoline. *Note:* Volumetric data on blending components, as well as oxygenates, are not counted in data on finished motor gasoline until the blending components are blended into the gasoline.

**Motor Gasoline Grades:** The classification of gasoline by octane ratings. Each type of gasoline (conventional, oxygenated, and reformulated) is classified by three

grades: regular, midgrade, and premium. *Note:* Gasoline sales are reported by grade in accordance with their classification at the time of sale. In general, automotive octane requirements are lower at high altitudes. Therefore, in some areas of the United States, such as the Rocky Mountain States, the octane ratings for the gasoline grades may be 2 or more octane points lower.

**Regular Gasoline:** Gasoline having an antiknock index, i.e., octane rating, greater than or equal to 85 and less than 88. *Note:* Octane requirements may vary by altitude. See **Motor Gasoline Grades**.

**Midgrade Gasoline:** Gasoline having an antiknock index, i.e., octane rating, greater than or equal to 88 and less than or equal to 90. *Note:* Octane requirements may vary by altitude. See **Motor Gasoline Grades**.

**Premium Gasoline:** Gasoline having an antiknock index, i.e., octane rating, greater than 90. *Note:* Octane requirements may vary by altitude. See **Motor Gasoline Grades**.

**Motor Gasoline, Oxygenated:** Finished motor gasoline, other than reformulated gasoline, having an oxygen content of 2.7 percent or higher by weight and required by the U.S. Environmental Protection Agency (EPA) to be sold in areas designated by EPA as carbon monoxide (CO) nonattainment areas. *Note:* Oxygenated gasoline excludes oxygenated fuels program reformulated gasoline (OPRG) and reformulated gasoline blendstock for oxygenate blending (RBOB). Data on gasohol that has at least 2.7 percent oxygen, by weight, and is intended for sale inside CO nonattainment areas are included in data on oxygenated gasoline. Other data on gasohol are included in data on conventional gasoline.

**Motor Gasoline, Reformulated:** Finished motor gasoline formulated for use in motor vehicles, the composition and properties of which meet the requirements of the reformulated gasoline regulations promulgated by the U.S. Environmental Protection Agency under Section 211(k) of the Clean Air Act. *Note:* This category includes oxygenated fuels program reformulated gasoline (OPRG) but excludes reformulated gasoline blendstock for oxygenate blending (RBOB).

**Motor Gasoline Retail Prices:** Motor gasoline prices calculated each month by the Bureau of Labor Statistics (BLS) in conjunction with the construction of the Consumer Price Index (CPI). Those prices are collected in 85 urban areas selected to represent all urban consumers—about 80 percent of the total U.S. population. The service stations are selected initially, and on a replacement basis, in such a way that they represent the purchasing habits of the CPI population. Service stations in the current sample include those providing all types of service (i.e., full-, mini-, and self-service).

**Motor Gasoline (Total):** For stock level data, a sum including finished motor gasoline stocks plus stocks of

motor gasoline blending components but excluding stocks of oxygenates.

**MTBE:** See **Methyl Tertiary Butyl Ether**.

**NAICS (North American Industry Classification System):** A coding system developed jointly by the United States, Canada, and Mexico to classify businesses and industries according to the type of economic activity in which they are engaged. NAICS replaces the Standard Industrial Classification (SIC) codes. For additional information on NAICS, go to <http://www.census.gov/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) gas vented and flared. Processing losses include 1) nonhydrocarbon gases (e.g., water vapor, carbon dioxide, helium, hydrogen sulfide, and nitrogen) removed from the gas stream; and 2) gas converted to liquid form, such as lease condensate and plant liquids. Volumes of dry gas withdrawn from gas storage reservoirs are not considered part of production. Dry natural gas production equals marketed production less extraction loss.

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

**Natural Gas Plant Liquids (NGPL):** Natural gas liquids recovered from natural gas in processing plants and, in some situations, from natural gas field facilities, as well as those extracted by fractionators. Natural gas plant

liquids are defined according to the published specifications of the Gas Processors Association and the American Society for Testing and Material as follows: ethane, propane, normal butane, isobutane, pentanes plus, and other products from natural gas processing plants (i.e., products meeting the standards for finished petroleum products produced at natural gas processing plants, such as finished motor gasoline, finished aviation gasoline, special naphthas, kerosene, distillate fuel oil, and miscellaneous products).

**Natural Gas Wellhead Price:** The wellhead price of natural gas is calculated by dividing the total reported value at the wellhead by the total quantity produced as reported by the appropriate agencies of individual producing States and the U.S. Minerals Management Service. The price includes all costs prior to shipment from the lease, including gathering and compression costs, in addition to State production, severance, and similar charges.

**Natural Gasoline:** A mixture of hydrocarbons (mostly pentanes and heavier) extracted from natural gas that meets vapor pressure, end-point, and other specifications for natural gasoline set by the Gas Processors Association. Includes isopentane, which is a saturated branch-chain hydrocarbon obtained by fractionation of natural gasoline or isomerization of normal pentane.

**Net Summer Capacity:** The maximum output, commonly expressed in **kilowatts** (kW) or **megawatts** (MW), that generating equipment can supply to system load, as demonstrated by a multi-hour test, at the time of summer peak demand (period of June 1 through September 30). This output reflects a reduction in capacity due to electricity use for station service or auxiliaries.

**Neutral Zone:** A 6,200 square-mile area shared equally between Kuwait and Saudi Arabia under a 1992 agreement. The Neutral Zone contains an estimated 5 billion barrels of oil and 8 trillion cubic feet of natural gas.

**Nominal Dollars:** A measure used to express **nominal price**.

**Nominal Price:** The price paid for a product or service at the time of the transaction. Nominal prices are those that have not been adjusted to remove the effect of changes in the purchasing power of the dollar; they reflect buying power in the year in which the transaction occurred.

**Non-Biomass Waste:** Material of non-biological origin that is a byproduct or a discarded product. "Non-biomass waste" includes municipal solid waste from non-biogenic sources, such as plastics, and tire-derived fuels.

**Nonhydrocarbon Gases:** Typical nonhydrocarbon gases that may be present in reservoir natural gas are carbon dioxide, helium, hydrogen sulfide, and nitrogen.

**Nonrenewable Fuels:** Fuels that cannot be easily made or "renewed," such as **crude oil**, **natural gas**, and **coal**.

**Nuclear Electric Power (Nuclear Power):** Electricity generated by the use of the thermal energy released from the fission of nuclear fuel in a reactor.

**Nuclear Electric Power Plant:** A single-unit or multiunit facility in which heat produced in one or more reactors by the fissioning of nuclear fuel is used to drive one or more steam turbines.

**Nuclear Reactor:** An apparatus in which a nuclear fission chain reaction can be initiated, controlled, and sustained at a specific rate. A reactor includes fuel (fissionable material), moderating material to control the rate of fission, a heavy-walled pressure vessel to house reactor components, shielding to protect personnel, a system to conduct heat away from the reactor, and instrumentation for monitoring and controlling the reactor's systems.

**OECD:** See **Organization for Economic Cooperation and Development**.

**Offshore:** That geographic area that lies seaward of the coastline. In general, the coastline is the line of ordinary low water along with that portion of the coast that is in direct contact with the open sea or the line marking the seaward limit of inland water.

**Oil:** See **Crude Oil**.

**OPEC:** See **Organization of the Petroleum Exporting Countries**.

**Operable Unit (Nuclear):** In the United States, a nuclear generating unit that has completed low-power testing and been issued a full-power operating license by the Nuclear Regulatory Commission, or equivalent permission to operate.

**Organization for Economic Cooperation and Development (OECD):** 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 hydrocarbons, mostly pentanes and heavier, extracted from natural gas. Includes isopentane, natural gasoline, and plant condensate.

**Petrochemical Feedstocks:** Chemical feedstocks derived from petroleum principally for the manufacture of chemicals, synthetic rubber, and a variety of plastics.

**Petroleum:** A broadly defined class of liquid hydrocarbon mixtures. Included are crude oil, lease condensate, unfinished oils, refined products obtained from the processing of crude oil, and natural gas plant liquids. Note: Volumes of finished petroleum products include nonhydrocarbon compounds, such as additives and detergents, after they have been blended into the products.

**Petroleum Coke:** See **Coke**, **Petroleum**.

**Petroleum Consumption:** See **Products Supplied (Petroleum)**.

**Petroleum Imports:** Imports of petroleum into the 50 States and the District of Columbia from foreign countries and from Puerto Rico, the Virgin Islands, and other U.S. territories and possessions. Included are imports for the Strategic Petroleum Reserve and withdrawals from bonded warehouses for onshore consumption, offshore bunker use, and military use. Excluded are receipts of foreign petroleum into bonded warehouses and into U.S. territories and U.S. Foreign Trade Zones.

**Petroleum Products:** Products obtained from the processing of crude oil (including lease condensate), natural gas, and other hydrocarbon compounds. Petroleum products include unfinished oils, liquefied petroleum gases, pentanes plus, aviation gasoline, motor gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, distillate fuel oil, residual fuel oil, petrochemical feedstocks, special naphthas,

lubricants, waxes, petroleum coke, asphalt, road oil, still gas, and miscellaneous products.

**Petroleum Stocks, Primary:** For individual products, quantities that are held at refineries, in pipelines, and at bulk terminals that have a capacity of 50,000 barrels or more, or that are in transit thereto. Stocks held by product retailers and resellers, as well as tertiary stocks held at the point of consumption, are excluded. Stocks of individual products held at gas processing plants are excluded from individual product estimates but are included in other oils estimates and total.

**Photovoltaic Energy:** Direct-current electricity generated from sunlight through solid-state semiconductor devices that have no moving parts.

**Pipeline Fuel:** Gas consumed in the operation of pipelines, primarily in compressors.

**Plant Condensate:** One of the natural gas liquids, mostly pentanes and heavier hydrocarbons, recovered and separated as liquid at gas inlet separators or scrubbers in processing plants.

**Primary Energy:** Energy in the form that it is first accounted for in a statistical energy balance, before any transformation to secondary or tertiary forms of energy. For example, coal can be converted to synthetic gas, which can be converted to electricity; in this example, coal is primary energy, synthetic gas is secondary energy, and electricity is tertiary energy. See **Primary Energy Production** and **Primary Energy Consumption**.

**Primary Energy Consumption:** Consumption of primary energy. (Energy sources that are produced from other energy sources—e.g., coal coke from coal—are included in primary energy consumption only if their energy content has not already been included as part of the original energy source. Thus, U.S. primary energy consumption does include net imports of coal coke, but not the coal coke produced from domestic coal.) The U.S. Energy Information Administration includes the following in U.S. primary energy consumption: coal consumption; coal coke net imports; **petroleum consumption (petroleum products supplied)**, including **natural gas plant liquids** and **crude oil** burned as fuel); **dry natural gas**—excluding **supplemental gaseous fuels**—consumption; **nuclear electricity net generation** (converted to Btu using the nuclear plants heat rate); **conventional hydroelectricity** net generation (converted to Btu using the fossil-fueled plants heat rate); **geothermal** electricity net generation (converted to Btu using the 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 kilowatt-hour). 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 (C<sub>3</sub>H<sub>8</sub>). It is a colorless paraffinic gas that boils at a temperature of -43.67° F. It is extracted from natural gas or refinery gas streams. It includes all products designated in ASTM Specification D1835 and Gas Processors Association Specifications for commercial propane and HD-5 propane.

**Propylene:** An olefinic hydrocarbon (C<sub>3</sub>H<sub>6</sub>) 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/neic/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, 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:** Gas released into the air on the production site or at processing plants.

**Vessel Bunkering:** Includes sales for the fueling of commercial or private boats, such as pleasure craft, fishing boats, tugboats, and ocean-going vessels, including vessels operated by oil companies. Excluded are volumes sold to the U.S. Armed Forces.

**Waste Coal:** Usable material that is a byproduct of previous coal processing operations. Waste coal is usually composed of mixed coal, soil, and rock (mine waste). Most waste coal is burned as-is in unconventional fluidized-bed combustors. For some uses, waste coal may be partially cleaned by removing some extraneous noncombustible constituents. Examples of waste coal include fine coal, coal obtained from a refuse bank or slurry dam, anthracite culm, bituminous gob, and lignite waste.

**Waste:** See **Biomass Waste** and **Non-Biomass Waste**.

**Watt (W):** The unit of electrical power equal to one ampere under a pressure of one volt. A watt is equal to 1/746 horsepower.

**Watt-hour (Wh):** The electrical energy unit of measure equal to one watt of power supplied to, or taken from, an electric circuit steadily for one hour.

**Waxes:** Solid or semisolid material derived from petroleum distillates or residues. Waxes are light-colored, more or less translucent crystalline masses, slightly greasy to the touch, consisting of a mixture of solid hydrocarbons in which the paraffin series predominates. Included are all marketable waxes, whether crude scale or fully refined. Waxes are used primarily as industrial coating for surface protection.

**Wellhead Price:** The value of crude oil or natural gas at the mouth of the well.

**Wind Energy:** Kinetic energy present in wind motion that can be converted to mechanical energy for driving pumps, mills, and electric power generators.

**Wood and Wood-Derived Fuels:** Wood and products derived from wood that are used as fuel, including round wood (cord wood), limb wood, wood chips, bark, sawdust, forest residues, charcoal, paper pellets, railroad ties, utility poles, **black liquor**, red liquor, sludge wood, spent sulfite liquor, and other wood-based solids and liquids.

**Working Gas:** The volume of gas in a reservoir that is in addition to the base gas. It may or may not be completely withdrawn during any particular withdrawal season. Conditions permitting, the total working capacity could be used more than once during any season.