## May 2014 Monthly Energy Review





### **Monthly Energy Review**

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

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

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

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

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

### **Important Notes About the Data**

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

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

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

### **Electronic Access**

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

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

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

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

**Released:** May 28, 2014

## Monthly Energy Review May 2014

U.S. Energy Information Administration

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

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

### **Contacts**

The *Monthly Energy Review* is prepared by the U.S. Energy Information Administration, Office of Energy Statistics, Office of Survey Development and Statistical Integration, Integrated Energy Statistics Team, under the direction of Barbara T. Fichman, 202-586-5737 (barbara.fichman@eia.gov). Questions and comments specifically related to the *Monthly Energy Review* may be addressed to Alexander Sun, 202-287-5948 (alexander.sun@eia.gov).

For assistance in acquiring data, please contact EIA's Office of Communications at 202-586-8800 (infoctr@eia.gov). Questions about the collection, processing, or interpretation of the information may be directed to the following subject specialists:

Section	1.	Energy Overview.	Dianne R. Dunn	202-586-2792 dianne.dunn@eia.gov
Section	2.	Energy Consumption by Sector	. Dianne R. Dunn	202-586-2792 dianne.dunn@eia.gov
Section	3.	Petroleum	. Jennifer Barrick	202-586-6254 jennifer.barrick@eia.gov
Section	4.	Natural Gas	Amy Sweeney	202-586-2627 amy.sweeney@eia.gov
Section	5.	Crude Oil and Natural Gas Resource Development	. Robert Schmitt	202-586-8644 robert.schmitt@eia.gov
Section	6.	Coal	. Nicholas Paduano	202-287-6326 nicholas.paduano@eia.gov
Section	7.	Electricity	. Ronald S. Hankey	202-586-2630 ronald.hankey@eia.gov
Section	8.	Nuclear Energy	Michele Simmons	202-586-9787 michele.simmons@eia.gov
Section	9.	Energy Prices		
		Petroleum	Maureen Klein	202-586-8013 maureen.klein@eia.gov
		Natural Gas	Amy Sweeney	202-586-2627 amy.sweeney@eia.gov
		Average Retail Prices of Electricity	. Peter Wong	202-586-7574 peter.wong@eia.gov
		Cost of Fuel at Electric Generating Plants	.Rebecca Peterson	202-586-4509 rebecca.peterson@eia.gov
	4.0	D	Michele Simmons	202-586-9787
Section	10.	Renewable Energy	. Whence Simmons	michele.simmons@eia.gov
Section Section		International Petroleum		

### **Contents**

			Page
Section	1.	Energy Overview.	1
Section	2.	Energy Consumption by Sector.	21
Section	3.	Petroleum	35
Section	4.	Natural Gas	67
Section	5.	Crude Oil and Natural Gas Resource Development	75
Section	6.	Coal	. 81
Section	7.	Electricity	91
Section	8.	Nuclear Energy	. 113
Section	9.	Energy Prices.	. 117
Section	10.	Renewable Energy.	. 135
Section	11.	International Petroleum.	147
Section	12.	Environment	. 157
Appendix	A.	British Thermal Unit Conversion Factors	. 171
Appendix	B.	Metric Conversion Factors, Metric Prefixes, and Other	
		Physical Conversion Factors	183
Glossary			. 187

### **Tables**

			Page
Section	1.	Energy Overview	
1.1		Primary Energy Overview	
1.2		Primary Energy Production by Source	
1.3		Primary Energy Consumption by Source.	
1.4a		Primary Energy Imports by Source	
1.4b		Primary Energy Exports by Source and Total Net Imports.	
1.5		Merchandise Trade Value	13
1.6		Cost of Fuels to End Users in Real (1982–1984) Dollars	15
1.7		Primary Energy Consumption per Real Dollar of Gross Domestic Product	16
1.8		Motor Vehicle Mileage, Fuel Consumption, and Fuel Economy	17
1.9		Heating Degree-Days by Census Division	18
1.10		Cooling Degree-Days by Census Division.	19
Section	2	Energy Consumption by Sector	
2.1	۷.	Energy Consumption by Sector.	23
2.1		Residential Sector Energy Consumption.	
2.3		Commercial Sector Energy Consumption.	
2.3		Industrial Sector Energy Consumption.	
2.4			
2.5		Transportation Sector Energy Consumption.  Electric Power Sector Energy Consumption.	
2.0		Electric Power Sector Energy Consumption.	33
Section	3.	Petroleum	
3.1		Petroleum Overview	
3.2		Refinery and Blender Net Inputs and Net Production.	39
3.3		Petroleum Trade	
		3.3a Overview.	
		3.3b Imports and Exports by Type	
		3.3c Imports From OPEC Countries	
		3.3d Imports From Non-OPEC Countries	
3.4		Petroleum Stocks.	47
3.5		Petroleum Products Supplied by Type	49
3.6		Heat Content of Petroleum Products Supplied by Type	51
3.7		Petroleum Consumption	
		3.7a Residential and Commercial Sectors	53
		3.7b Industrial Sector	54
		3.7c Transportation and Electric Power Sectors	55
3.8		Heat Content of Petroleum Consumption	
		3.8a Residential and Commercial Sectors	58
		3.8b Industrial Sector.	
		3.8c Transportation and Electric Power Sectors.	
		1	
Section	4	Natural Gas	
	4.		60
4.1		Natural Gas Overview.	
4.2		Natural Gas Trade by Country	
4.3		Natural Gas Consumption by Sector.	
4.4		Natural Gas in Underground Storage.	12
Section	5	Crude Oil and Natural Gas Resource Development	
5.1	٥.	Crude Oil and Natural Gas Drilling Activity Measurements.	77
5.2		Crude Oil and Natural Gas Exploratory and Development Wells.	
J.4		Grade On and reduital Gas Exploratory and Development wens	70

### **Tables**

			Page
Section	6.	Coal	
6.1		Coal Overview.	. 83
6.2		Coal Consumption by Sector.	. 84
6.3		Coal Stocks by Sector.	. 85
Section	7.	Electricity	
7.1		Electricity Overview.	. 93
7.2		Electricity Net Generation	
		7.2a Total (All Sectors).	
		7.2b Electric Power Sector.	
		7.2c Commercial and Industrial Sectors	. 97
7.3		Consumption of Combustible Fuels for Electricity Generation	
		7.3a Total (All Sectors).	
		7.3b Electric Power Sector.	
7.4		7.3c Commercial and Industrial Sectors (Selected Fuels).	101
7.4		Consumption of Combustible Fuels for Electricity Generation and Useful Thermal Output	102
		7.4a Total (All Sectors).	
		7.4b Electric Power Sector.	
7.5		7.4c Commercial and Industrial Sectors (Selected Fuels)	105
7.5 7.6		Electricity End Use.	
7.0		Electricity End Ose.	109
Section	8.	Nuclear Energy	
8.1		Nuclear Energy Overview.	115
Section	9.	Energy Prices	
9.1		Crude Oil Price Summary	119
9.2		F.O.B. Costs of Crude Oil Imports From Selected Countries.	
9.3		Landed Costs of Crude Oil Imports From Selected Countries.	
9.4		Motor Gasoline Retail Prices, U.S. City Average.	
9.5		Refiner Prices of Residual Fuel Oil.	
9.6		Refiner Prices of Petroleum Products for Resale.	
9.7		Refiner Prices of Petroleum Products to End Users.	
9.8		Average Retail Prices of Electricity.	
9.9		Cost of Fossil-Fuel Receipts at Electric Generating Plants.	
9.10		Natural Gas Prices.	131
Section	10.	Renewable Energy	
10.1		Renewable Energy Production and Consumption by Source	137
10.2		Renewable Energy Consumption	
		10.2a Residential and Commercial Sectors.	
		10.2b Industrial and Transportation Sectors	139
		10.2c Electric Power Sector	140
10.3		Fuel Ethanol Overview.	141
10.4		Biodiesel Overview	142

### **Tables**

			Page
Section	11.	International Petroleum	
11.1	11.	World Crude Oil Production	
		11.1a OPEC Members.	150
		11.1b Persian Gulf Nations, Non-OPEC, and World.	
11.2		Petroleum Consumption in OECD Countries.	
11.3		Petroleum Stocks in OECD Countries.	
Section	12.	Environment	
12.1		Carbon Dioxide Emissions From Energy Consumption by Source	. 159
12.2		Carbon Dioxide Emissions From Energy Consumption: Residential Sector	161
12.3		Carbon Dioxide Emissions From Energy Consumption: Commercial Sector	162
12.4		Carbon Dioxide Emissions From Energy Consumption: Industrial Sector	163
12.5		Carbon Dioxide Emissions From Energy Consumption: Transportation Sector	164
12.6		Carbon Dioxide Emissions From Energy Consumption: Electric Power Sector	165
12.7		Carbon Dioxide Emissions From Biomass Energy Consumption	166
Append	ix A.	British Thermal Unit Conversion Factors	
A1.		Approximate Heat Content of Petroleum Products.	171
A2.		Approximate Heat Content of Petroleum Production, Imports, and Exports	
A3.		Approximate Heat Content of Petroleum Consumption and Biofuels Production	173
A4.		Approximate Heat Content of Natural Gas.	
A5.		Approximate Heat Content of Coal and Coal Coke	175
A6.		Approximate Heat Rates for Electricity, and Heat Content of Electricity.	176
Append	ix B.	Metric Conversion Factors, Metric Prefixes, and Other Physical Conversion Factors	
B1.		Metric Conversion Factors.	184
B2.		Metric Prefixes.	185
B3.		Other Physical Conversion Factors.	185

### **Figures**

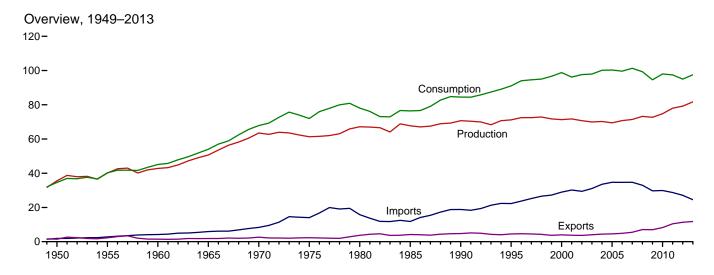
		Pa	ge
Section	1.	Energy Overview	
1.1		Primary Energy Overview.	
1.2		Primary Energy Production.	
1.3		Primary Energy Consumption.	6
1.4a		Primary Energy Imports and Exports.	8
1.4b		Primary Energy Net Imports.	
1.5		Merchandise Trade Value	
1.6		Cost of Fuels to End Users in Real (1982–1984) Dollars	
1.7		Primary Energy Consumption per Real Dollar of Gross Domestic Product	6
1.8		Motor Vehicle Fuel Economy	.7
Section	2.	Energy Consumption by Sector	
2.1		Energy Consumption by Sector	
2.2		Residential Sector Energy Consumption	
2.3		Commercial Sector Energy Consumption	
2.4		Industrial Sector Energy Consumption	
2.5		Transportation Sector Energy Consumption	
2.6		Electric Power Sector Energy Consumption	2
Section	3	Petroleum	
3.1	5.	Petroleum Overview	16
3.1		Refinery and Blender Net Inputs and Net Production.	
3.3		Petroleum Trade	0
3.3		3.3a Overview	ın
		3.3b Imports	
2.4		Petroleum Stocks. 4	
3.4 3.5			
3.5 3.6		Petroleum Products Supplied by Type. 4	
		Heat Content of Petroleum Products Supplied by Type	
3.7		Petroleum Consumption by Sector	
3.8a 3.8b		Heat Content of Petroleum Consumption by End-User Sector. 5 Heat Content of Petroleum Consumption by End-User Sector, Monthly. 5	
2.00		2.200 CO.1000 CT 200 CT.2000	•
Section	4.	Natural Gas	
4.1		Natural Gas	8
Section	5	Crude Oil and Natural Gas Resource Development	
5.1	3.	Crude Oil and Natural Gas Resource Development Indicators	16
Section	6.	Coal	
6.1		Coal	32
Section	7	Flootwisite	
7.1	7.	Electricity Electricity Overview	2
7.1		Electricity Overview. 9 Electricity Net Generation. 9	
7.2		Consumption of Selected Combustible Fuels for Electricity Generation. 9	
7.3 7.4		Consumption of Selected Combustible Fuels for Electricity Generation and	0
7.4		Useful Thermal Output	12
7.5		Stocks of Coal and Petroleum: Electric Power Sector	
7.5 7.6			
7.0		Electricity End Use	10

### **Figures**

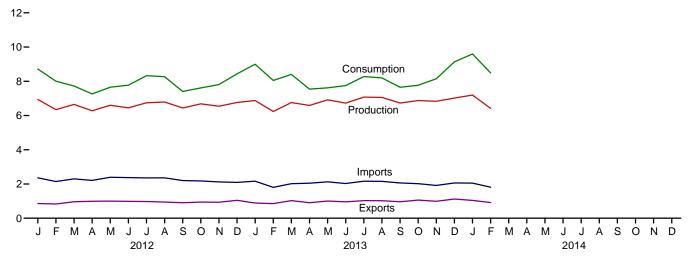
			Page
Section 8.1	8.	Nuclear Energy Nuclear Energy Overview.	114
Section	9.	Energy Prices	
9.1		Petroleum Prices.	
9.2		Average Retail Prices of Electricity.	
9.3 9.4		Cost of Fossil-Fuel Receipts at Electric Generating Plants.  Natural Gas Prices.	
	10.	Renewable Energy Renewable Energy Consumption.	
Sectionr	11.	International Petroleum World Crude Oil Production	
11.1		11.1a Overview	
11.2		Petroleum Consumption in OECD Countries	
11.3		Petroleum Stocks in OECD Countries.	154
Section	12.	Environment	
12.1		Carbon Dioxide Emissions From Energy Consumption by Source	
12.2		Carbon Dioxide Emissions From Energy Consumption by Sector.	160

### 1. Energy Overview

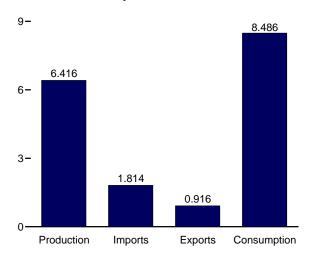
Figure 1.1 Primary Energy Overview (Quadrillion Btu)



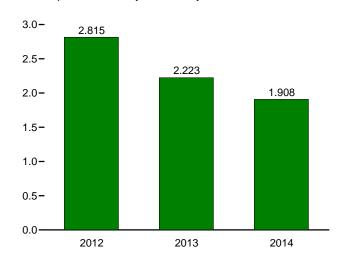
### Overview, Monthly







Net Imports, January–February



Web Page: http://www.eia.gov/totalenergy/data/monthly/#summary. Source: Table 1.1.

**Table 1.1 Primary Energy Overview** 

		Produ	uction			Trade		Ctasla		Consu	Consumption				
	Fossil Fuels <sup>a</sup>	Nuclear Electric Power	Renew- able Energy <sup>b</sup>	Total	Imports	Exports	Net Imports <sup>c</sup>	Stock Change and Other <sup>d</sup>	Fossil Fuels <sup>e</sup>	Nuclear Electric Power	Renew- able Energy <sup>b</sup>	Total <sup>f</sup>			
950 Total	32.563	0.000	2.978	35.540	1.913	1.465	0.448	-1.372	31.632	0.000	2.978	34.616			
955 Total	37.364	.000	2.784	40.148	2.790	2.286	.504	444	37.410	.000	2.784	40.208			
960 Total	39.869	.006	2.928	42.803	4.188	1.477	2.710	427	42.137	.006	2.928	45.086			
965 Total	47.235	.043	3.396	50.674	5.892	1.829	4.063	722	50.577	.043	3.396	54.015			
970 Total	59.186	.239	4.070	63.495	8.342	2.632	5.709	-1.367	63.522	.239	4.070	67.838			
975 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			
980 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			
985 Total	57.539 58.560	4.076	6.084 6.041	67.698 70.705	11.781	4.196 4.752	7.584	1.110	66.093	4.076 6.104	6.084 6.041	76.392 84.485			
990 Total 995 Total	57.540	6.104 7.075	6.558	70.705	18.817 22.260	4.752	14.065 17.750	284 2.105	72.332 77.259	7.075	6.560	91.029			
2000 Total	57.366	7.862	6.104	71.174	28.973	4.006	24.967	2.515	84.731	7.862	6.106	98.814			
2001 Total	58.541	8.029	5.164	71.735	30.157	3.771	26.386	-1.953	82.902	8.029	5.163	96.168			
2002 Total	56.834	8.145	5.734	70.713	29.408	3.669	25.739	1.193	83.699	8.145	5.729	97.645			
2003 Total	56.033	7.960	5.947	69.939	31.061	4.054	27.007	.998	84.014	7.960	5.948	97.943			
2004 Total	55.942	8.223	6.069	70.234	33.544	4.434	29.110	.817	85.819	8.223	6.081	100.161			
2005 Total	55.044	8.161	6.229	69.434	34.709	4.560	30.149	.698	85.794	8.161	6.242	100.282			
2006 Total	55.938	8.215	6.599	70.751	34.679	4.873	29.806	929	84.702	8.215	6.649	99.629			
2007 Total	56.436	8.459	6.528	71.422	34.704	5.483	29.220	.675	86.211	8.459	6.541	101.317			
2008 Total	57.587	8.426	7.219	73.233	32.993	7.063	25.931	.129	83.551	8.426	7.202	99.292			
2009 Total	56.670	8.355	7.655	72.680	29.706	6.966	22.740	824	78.487	8.355	7.638	94.596			
2010 Total	58.207	8.434	8.128	74.769	29.877	8.234	21.643	1.604	81.412	8.434	8.081	98.016			
2011 Total	60.563	8.269	9.170	78.002	28.720	10.457	18.263	1.196	79.991	8.269	9.074	97.461			
<b>012</b> January	<sup>R</sup> 5.408	.758	.772	6.939	2.361	.858	1.502	.277	7.198	.758	.751	8.718			
February	4.977	.669	.693	6.339	2.142	.830	1.313	.356	6.648	.669	.681	8.008			
March	R 5.213	.647	.792	R 6.652	2.296	.960	1.336	R265	6.281	.647	.785	7.723			
April	R 4.924	.585	.765	R 6.274	2.211	.987	1.224	235	5.904	.585	.761	7.263			
May	5.140	.651	.806	6.596	2.392	.999	1.393	334	6.187	.651	.803	7.655			
June	4.996	.683 .724	.772 .743	6.451 R 6.743	2.371	.985 .973	1.386	063	6.305	.683	.772 .744	7.773			
July	<sup>R</sup> 5.276 <sup>R</sup> 5.347	.724	.743 .712	R 6.789	2.354 2.361	.940	1.381 1.420	R .206 R .059	6.843 6.803	.724 .729	.744	8.330 8.269			
August September	5.119	.676	.644	R 6.439	2.301	.906	1.293	R326	6.073	.676	.643	7.406			
October	R 5.379	.626	.678	6.682	2.176	.944	1.232	R300	6.293	.626	.683	7.614			
November	R 5.266	.594	.683	R 6.544	2.119	.930	1.189	R .075	6.517	.594	.684	7.808			
December	R 5.278	.719	.766	R 6.762	2.093	1.043	1.050	R .624	6.943	.719	.763	8.436			
Total	62.323	8.062	8.826	R 79.211	27.075	11.356	15.719	.074	77.994	8.062	8.786	95.004			
013 January	5.331	.748	.795	6.874	2.163	.888	1.275	.850	7.443	.748	.794	8.998			
February	R 4.883	.644	.706	R 6.233	1.800	.851	.949	.867	6.684	.644	.707	8.048			
March	5.327	.660	.770	6.757	2.017	1.024	.993	.655	6.960	.660	.771	8.405			
April	5.185	.595	.809	6.589	2.044	.906	1.139	187	6.124	.595	.810	7.541			
May	5.399	.659	.857	<sup>R</sup> 6.914	2.122	1.001	1.122	417	6.087	.659	.857	7.619			
June	R 5.206	.696	.821	6.722	2.029	.957	1.072	R048	6.212	.696	.822	7.746			
July	5.524	.739	.813	7.076	2.164	1.027	1.137	.065	6.710	.739	.810	8.278			
August	R 5.571	.748	.737	R 7.056	2.151	1.021	1.131	R .009	6.694	.748	.734	8.195			
September	R 5.345	.690	.695	R 6.729	2.058	.961	1.098	R177	6.247	.690	.698	7.650			
October	<sup>R</sup> 5.473 <sup>R</sup> 5.393	.662	.739	6.875 R 6.832	2.017	1.057	.961	070 R .393	6.349	.662	.740	7.765			
November	R 5.473	.681 .747	.758 .799	R 7.019	1.913	.990 1.119	.923 .942	R 1.177	6.700	.681 .747	.752 .795	8.148			
December Total	R <b>64.110</b>	8.268	9.298	R <b>81.676</b>	2.061 <b>24.541</b>	11.802	12.739	R 3.116	7.582 <b>79.794</b>	8.268	9.291	9.138 <b>97.531</b>			
2014 January	<sup>R</sup> 5.613	.766	.819	<sup>R</sup> 7.197	2.050	1.040	1.010	<sup>R</sup> 1.387	R 8.004	.766	.812	R 9.595			
February	5.057	.656	.702	6.416	1.814	.916	.897	1.173	7.121	.656	.699	8.486			
2-Month Total	10.670	1.422	1.521	13.613	3.864	1.956	1.908	2.560	15.125	1.422	1.511	18.080			
2013 2-Month Total 2012 2-Month Total	10.214 10.385	1.393 1.428	1.501 1.465	13.107 13.278	3.963 4.503	1.739 1.688	2.223 2.815	1.716 .633	14.127 13.846	1.393 1.428	1.500 1.432	17.046 16.726			

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

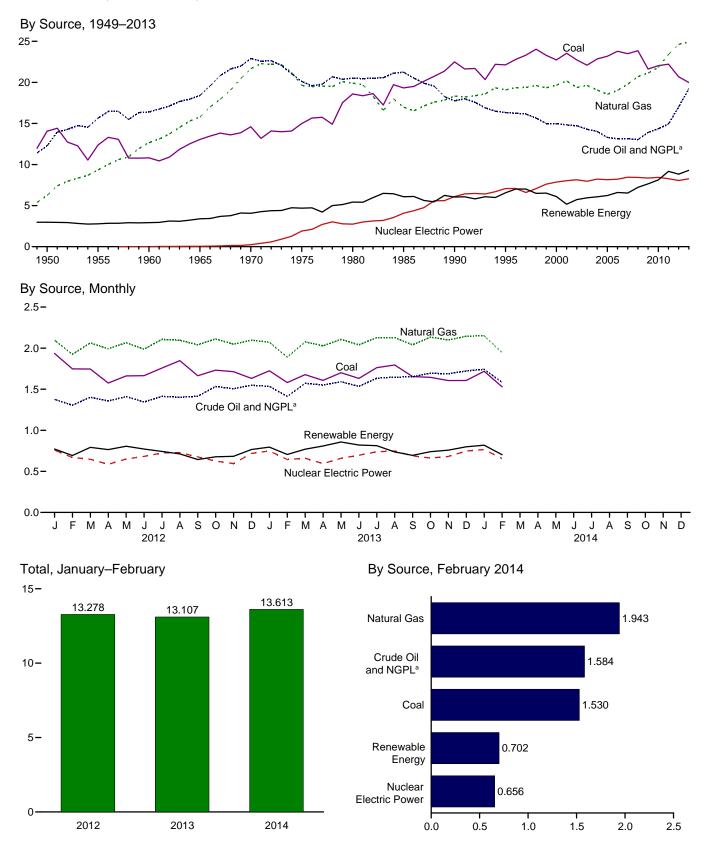
Web Page: See http://www.eia.gov/totalenergy/data/monthly/#summary (Excel and CSV files) for all available annual data beginning in 1949 and monthly data

beginning in 1973.
Sources: • Production: Table 1.2. • Trade: Tables 1.4a and 1.4b. • Stock **Change and Other:** Calculated as consumption minus production and net imports. • **Consumption:** Table 1.3.

a Coal, natural gas (dry), crude oil, and natural gas plant liquids.
 b See Tables 10.1–10.2c for notes on series components and estimation; and see Note, "Renewable Energy Production and Consumption," at end of Section 10.
 c Net imports equal imports minus exports.
 d Includes petroleum stock change and adjustments; natural gas net storage withdrawals and balancing item; coal stock change, losses, and unaccounted for; fuel ethanol stock change; and biodiesel stock change and balancing item.
 e Coal, coal coke net imports, natural gas, and petroleum.
 f Also includes electricity net imports.
 R=Revised.

R=Revised.

Figure 1.2 Primary Energy Production (Quadrillion Btu)



<sup>&</sup>lt;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

		F	ossil Fuels					I	Renewabl	e Energy	a		
	Coal <sup>b</sup>	Natural Gas (Dry)	Crude Oil <sup>c</sup>	NGPLd	Total	Nuclear Electric Power	Hydro- electric Power <sup>e</sup>	Geo- thermal	Solar/ PV	Wind	Bio- mass	Total	Total
1950 Total	14.060	6.233	11.447	0.823	32.563	0.000	1.415	NA	NA	NA	1.562	2.978	35.540
1955 Total	12.370	9.345	14.410	1.240	37.364	.000	1.360	ŅĄ	NA	NA	1.424	2.784	40.148
1960 Total	10.817	12.656	14.935	1.461	39.869	.006	1.608	(s)	NA	NA	1.320	2.928	42.803
1965 Total	13.055 14.607	15.775 21.666	16.521 20.401	1.883 2.512	47.235 59.186	.043 .239	2.059 2.634	.002 .006	NA NA	NA NA	1.335 1.431	3.396 4.070	50.674 63.495
1970 Total 1975 Total	14.007	19.640	17.729	2.374	54.733	1.900	3.155	.034	NA NA	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	.ò59	.ò29	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
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 22.852	19.633 19.074	11.960 11.550	2.346 2.466	56.033 55.942	7.960 8.223	2.793 2.688	.173 .178	.062 .063	.113 .142	2.805 2.998	5.947 6.069	69.939 70.234
2004 Total 2005 Total	23.185	18.556	10.969	2.334	55.044	8.161	2.703	.176	.063	.178	3.104	6.229	69.434
2006 Total	23.790	19.022	10.771	2.356	55.938	8.215	2.869	.181	.068	.264	3.216	6.599	70.751
2007 Total	23.493	19.786	10.748	2.409	56.436	8.459	2.446	.186	.076	.341	3.480	6.528	71.422
2008 Total	23.851	20.703	10.613	2.419	57.587	8.426	2.511	.192	.089	.546	3.881	7.219	73.233
2009 Total	21.624	21.139	11.333	2.574	56.670	8.355	2.669	.200	.098	.721	3.967	7.655	72.680
2010 Total 2011 Total	22.038 22.221	21.806 23.406	11.581 11.966	2.781 2.970	58.207 60.563	8.434 8.269	2.539 3.103	.208 .212	.126 .171	.923 1.168	4.332 4.516	8.128 9.170	74.769 78.002
<b>2012</b> January	1.935	2.098	R 1.103	.272	R 5.408	.758	.220	.017	.017	.130	.388	.772	6.939
February	1.747	1.924	R 1.049	.256	4.977	.669	.193	.016	.016	.105	.363	.693	6.339
March	1.745	2.064	R 1.131	.272	R 5.213	.647	.247	.018	.018	.133	.377	.792	R 6.652
April	1.575	1.992	R 1.094	.263	R 4.924	.585	.250	.017	.018	.121	.358	.765	R 6.274
May	1.662	2.067	1.138	.273	5.140	.651	.273	.018	.020	.119	.376	.806	6.596
June	1.665	1.987	1.086	.258	4.996	.683	.254	.017	.020	.114	.367	.772	6.451
July	1.757	2.107	1.147	.266	R 5.276	.724	.252	.018	.021	.084	.368	.743	R 6.743
August	1.848 1.664	2.097 2.041	R 1.132 1.142	.271 .272	<sup>R</sup> 5.347 5.119	.729 .676	.219 .168	.018 .018	.020 .020	.081 .084	.375 .356	.712 .644	R 6.789
September October	1.732	2.113	R 1.142	.272	R 5.379	.626	.157	.018	.020	.120	.363	.678	6.682
November	1.714	2.048	R 1.225	.280	R 5.266	.594	.178	.018	.019	.111	.358	.683	R 6.544
December	1.632	2.098	R 1.272	.276	R 5.278	.719	.219	.019	.019	.138	.372	.766	R 6.762
Total	20.677	24.635	R 13.765	3.246	62.323	8.062	2.629	.212	.227	1.340	4.419	8.826	R 79.211
2013 January	1.724	E 2.072	E 1.263	.272	5.331	.748	.239	.019	.022	.139	.376	.795	6.874
February	1.581	E 1.890 E 2.077	E 1.157 E 1.288	.255 .285	R 4.883	.644	.195	.017 .019	.021 .025	.132	.340 .381	.706 .770	R 6.233
March April	1.678 1.607	E 2.028	RE 1.274	.285 .275	5.327 5.185	.660 .595	.197 .236	.019	.025	.149 .165	.366	.809	6.757 6.589
May	1.701	E 2.107	E 1.306	.275	5.399	.659	.272	.018	.025	.155	.386	.857	R 6.914
June	1.631	E 2.040	RE 1.256	.278	R 5.206	.696	.260	.018	.027	.131	.385	.821	6.722
July	1.763	E 2.128	E 1.340	.294	5.524	.739	.259	.019	.027	.106	.402	.813	7.076
August	1.796	E 2.128	RE 1.342	.306	R 5.571	.748	.207	.019	.028	.091	.392	.737	R 7.056
September	1.654	E 2.040	RE 1.349	.302	<sup>R</sup> 5.345	.690	.161	.018	.027	.111	.377	.695	R 6.729
October	1.644	E 2.134	E 1.387	.309	R 5.473	.662	.165	.019	.028	.131	.397	.739	6.875
November	1.606	E 2.099 E 2.145	RE 1.383 RE 1.421	.305	<sup>R</sup> 5.393 <sup>R</sup> 5.473	.681	.169	.018	.025	.151	.396	.758	R 6.832 R 7.019
December Total	1.606 <b>19.990</b>	E <b>24.889</b>	RE <b>15.765</b>	.301 <b>3.465</b>	R <b>64.110</b>	.747 <b>8.268</b>	.203 <b>2.561</b>	.019 <b>.221</b>	.026 <b>.307</b>	.134 <b>1.595</b>	.417 <b>4.614</b>	.799 <b>9.298</b>	R <b>81.676</b>
<b>2014</b> January	1.719	RE 2.151	RE 1.439	.304	R 5.613	.766	.206	.019	.029	.171	.395	.819	R 7.197
February 2-Month Total	1.530 <b>3.248</b>	E 1.943 E <b>4.094</b>	E 1.305 E <b>2.744</b>	.279 <b>.583</b>	5.057 <b>10.670</b>	.656 <b>1.422</b>	.166 <b>.372</b>	.017 <b>.036</b>	.027 <b>.056</b>	.133 <b>.304</b>	.359 <b>.754</b>	.702 <b>1.521</b>	6.416 <b>13.613</b>
2013 2-Month Total 2012 2-Month Total	3.305 3.683	E 3.962 4.021	E 2.420 2.153	.527 .529	10.214 10.385	1.393 1.428	.434 .413	.036 .034	.043 .033	.272 .235	.715 .751	1.501 1.465	13.107 13.278

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

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

c Includes lease condensate.
d Natural gas plant liquids.
e Conventional hydroelectric power.
R=Revised. E=Estimate. NA=Not available. (s)=Less than 0.5 trillion Btu.
Notes: • See "Primary Energy Production" in Glossary. • Totals may not equal

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

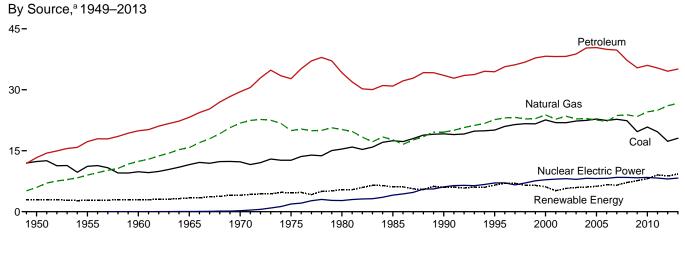
Web Page: See http://www.eia.gov/totalenergy/data/monthly/#summary (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.

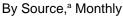
Sources: • Coal: Tables 6.1 and A5. • Natural Gas (Dry): Tables 4.1 and A4. • Crude Oil and Natural Gas Plant Liquids: Tables 3.1 and A2.

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

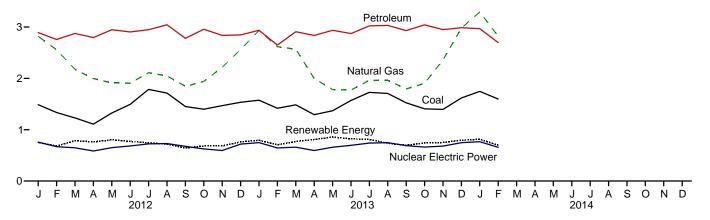
• Renewable Energy: Table 10.1.

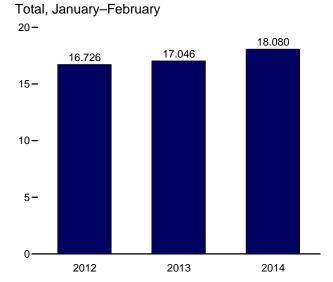
Figure 1.3 Primary Energy Consumption (Quadrillion Btu)



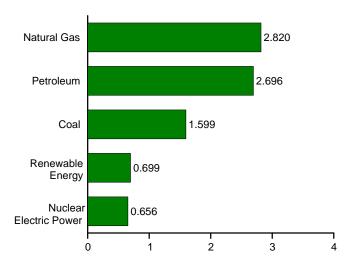








### By Source,<sup>a</sup> February 2014



<sup>&</sup>lt;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** 

	Coal			l		Renewable Energy <sup>a</sup>						
		Natural Gas <sup>b</sup>	Petro- leum <sup>c</sup>	Total <sup>d</sup>	Nuclear Electric Power	Hydro- electric Power <sup>e</sup>	Geo- thermal	Solar/ PV	Wind	Bio- mass	Total	Total <sup>f</sup>
1950 Total	12.347	5.968	13.315	31.632	0.000	1.415	NA	NA	NA	1.562	2.978	34.616
1955 Total	11.167	8.998	17.255	37.410	.000	1.360	NA	NA	NA	1.424	2.784	40.208
1960 Total	9.838	12.385	19.919	42.137	.006	1.608	(s)	NA	NA	1.320	2.928	45.086
1965 Total	11.581	15.769	23.246	50.577	.043	2.059	.002	NA	NA	1.335	3.396	54.015
1970 Total	12.265	21.795	29.521	63.522	.239	2.634	.006	NA	NA	1.431	4.070	67.838
1975 Total	12.663	19.948	32.732	65.357	1.900	3.155	.034	NA	NA	1.499	4.687	71.965
1980 Total	15.423	20.235	34.205	69.828	2.739	2.900	.053	NA	NA	2.475	5.428	78.067
1985 Total	17.478	17.703	30.925	66.093	4.076	2.970	.097	(s)	(s)	3.016	6.084	76.392
1990 Total	19.173	19.603	33.552	72.332	6.104	3.046	.171	.059	.029	2.735	6.041	84.485
1995 Total	20.089	22.671	34.438	77.259	7.075	3.205	.152	.069	.033	3.101	6.560	91.029
2000 Total	22.580	23.824	38.262	84.731	7.862	2.811	.164	.066	.057	3.008	6.106	98.814
2001 Total	21.914	22.773	38.186	82.902	8.029	2.242	.164	.064	.070	2.622	5.163	96.168
2002 Total	21.904	23.510	38.224	83.699	8.145	2.689	.171	.063	.105	2.701	5.729	97.645
2003 Total	22.321	22.831	38.811	84.014	7.960	2.793	.173	.062	.113	2.807	5.948	97.943
2004 Total	22.466	22.923	40.292	85.819	8.223	2.688	.178	.063	.142	3.010	6.081	100.161
2005 Total	22.797	22.565	40.388	85.794	8.161	2.703	.181	.063	.178	3.117	6.242	100.282
2006 Total	22.447	22.239	39.955	84.702	8.215	2.869	.181	.068	.264	3.267	6.649	99.629
2007 Total	22.749	23.663	39.774	86.211	8.459	2.446	.186	.076	.341	3.492	6.541	101.317
2008 Total	22.387	23.843	37.280	83.551	8.426	2.511	.192	.089	.546	3.865	7.202	99.292
2009 Total	19.691	23.416	35.403	78.487	8.355	2.669	.200	.098	.721	3.950	7.638	94.596
2010 Total	20.834	24.575	36.010	81.412	8.434	2.539	.208	.126	.923	4.285	8.081	98.016
2011 Total	19.658	24.955	35.368	79.991	8.269	3.103	.212	.171	1.168	4.420	9.074	97.461
2012 January	1.487	2.818	2.891	7.198	.758	.220	.017	.017	.130	.367	.751	8.718
February	1.334	2.557	2.757	6.648	.669	.193	.016	.016	.105	.351	.681	8.008
March	1.229	2.174	2.874	6.281	.647	.247	.018	.018	.133	.370	.785	7.723
April	1.109	1.995	2.794	5.904	.585	.250	.017	.018	.121	.354	.761	7.263
May	1.326	1.913	2.947	6.187	.651	.273	.018	.020	.119	.373	.803	7.655
June	1.494	1.907	2.904	6.305	.683	.254	.017	.020	.114	.367	.772	7.773
July	1.785	2.111	2.947	6.843	.724	.252	.018	.021	.084	.369	.744	8.330
August	1.713	2.046	3.044	6.803	.729	.219	.018	.020	.081	.380	.718	8.269
September	1.451	1.843	2.780	6.073	.676	.168	.018	.020	.084	.355	.643	7.406
October	1.399	1.941	2.956	6.293	.626	.157	.018	.020	.120	.368	.683	7.614
November	1.468	2.214	2.837	6.517	.594	.178	.018	.019	.111	.358	.684	7.808
December	1.534	2.562	2.847	6.943	.719	.219	.019	.019	.138	.369	.763	8.436
Total	17.329	26.083	34.577	77.994	8.062	2.629	.212	.227	1.340	4.379	8.786	95.004
013 January	1.575	2.932	2.936	7.443	.748	.239	.019	.022	.139	.375	.794	8.998
February	1.418	2.617	2.648	6.684	.644	.195	.017	.021	.132	.340	.707	8.048
March	1.484	2.569	2.909	6.960	.660	.197	.019	.025	.149	.382	.771	8.405
April	1.293	1.998	2.836	6.124	.595	.236	.018	.025	.165	.367	.810	7.541
May	1.369	1.782	2.937	6.087	.659	.272	.018	.026	.155	.386	.857	7.619
June	1.570	1.772	2.872	6.212	.696	.260	.018	.027	.131	.386	.822	7.746
July	1.727	1.963	3.022	6.710	.739	.259	.019	.027	.106	.399	.810	8.278
August	1.705	1.959	3.032	6.694	.748	.207	.019	.028	.091	.390	.734	8.195
September	1.523	1.794	2.930	6.247	.690	.161	.018	.027	.111	.380	.698	7.650
October	1.406	1.903	3.042	6.349	.662	.165	.019	.028	.131	.398	.740	7.765
November	1.395	2.358	2.950	6.700	.681	.169	.018	.025	.151	.390	.752	8.148
December	1.619	2.980	2.986	7.582	.747	.203	.019	.026	.134	.414	.795	9.138
Total	18.084	26.628	35.099	79.794	8.268	2.561	.221	.307	1.595	4.607	9.291	97.531
2014 January	1.746	R 3.291	2.968	R 8.004	.766	.206	.019	.029	.171	.388	.812	R 9.595
February	1.599	2.820	2.696	7.121	.656	.166	.017	.027	.133	.356	.699	8.486
2-Month Total	3.345	6.111	5.664	15.125	1.422	.372	.036	.056	.304	.743	1.511	18.080
2013 2-Month Total 2012 2-Month Total	2.993 2.821	5.550 5.375	5.584 5.648	14.127 13.846	1.393 1.428	.434 .413	.036 .034	.043 .033	.272 .235	.715 .718	1.500 1.432	17.046 16.726

<sup>&</sup>lt;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

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.

e Conventional hydroelectric power.

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

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

Notes:

• See "Primary Energy Consumption" in Glossary.

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

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

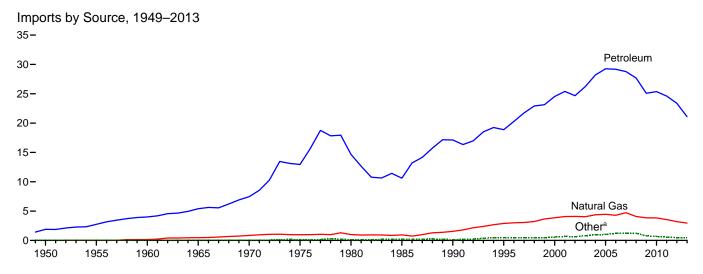
Web Page: See http://www.eia.gov/totalenergy/data/monthly/#summary (Excel and CSV files) for all available annual data beginning in 1949 and monthly data

and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.

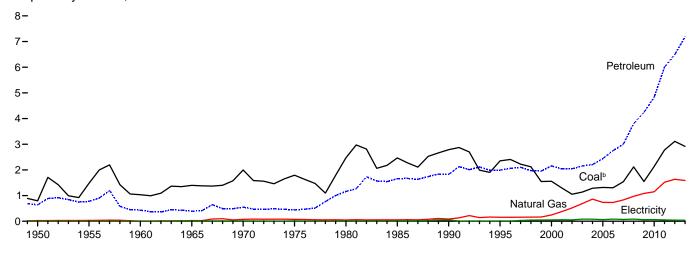
Sources: • Coal: Tables 6.1 and A5. • Natural Gas: Tables 4.1 and A4.

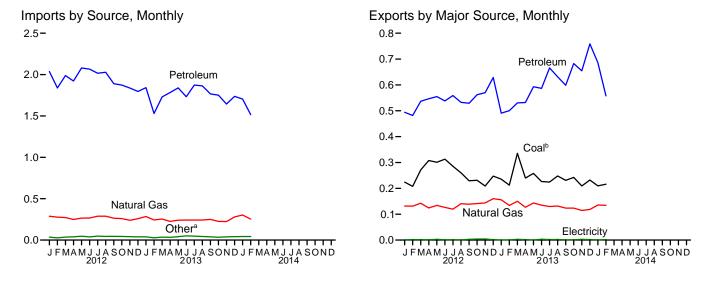
• Petroleum: Table 3.6. • Nuclear Electric Power: Tables 7.2a and A6 ("Nuclear Plants" heat rate). • Renewable Energy: Table 10.1. • Net Imports of Coal Coke and Electricity: Tables 1.4a and 1.4b.

Figure 1.4a Primary Energy Imports and Exports



Exports by Source, 1949-2013



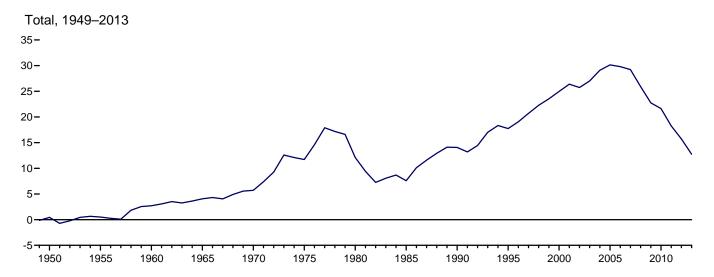


<sup>&</sup>lt;sup>a</sup> Coal, coal coke, biofuels, and electricity.

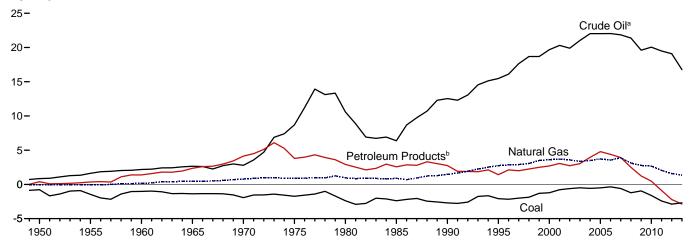
<sup>b</sup> Includes coal coke.

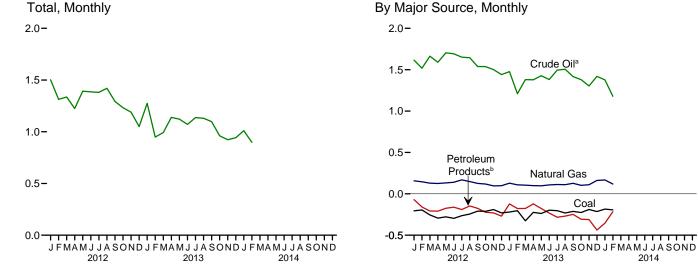
Web Page: http://www.eia.gov/totalenergy/data/monthly/#summary. Sources: Tables 1.4a and 1.4b.

Figure 1.4b Primary Energy Net Imports









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

blending components. Does not include biofuels.

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

Sources: Tables 1.4a and 1.4b.

<sup>&</sup>lt;sup>b</sup> Petroleum products, unfinished oils, pentanes plus, and gasoline

Table 1.4a Primary Energy Imports by Source

					Imports				
					Petroleum				
	Coal	Coal Coke	Natural Gas	Crude Oil <sup>a</sup>	Petroleum Products <sup>b</sup>	Total	Biofuels <sup>c</sup>	Electricity	Total
950 Total	0.009	0.011	0.000	1.056	0.830	1.886	NA	0.007	1.913
955 Total	.008	.003	.011	1.691	1.061	2.752	NA	.016	2.790
960 Total	.007	.003	.161	2.196	1.802	3.999	NA	.018	4.188
965 Total	.005	.002	.471	2.654	2.748	5.402	NA	.012	5.892
970 Total	.001	.004	.846	2.814	4.656	7.470	NA	.021	8.342
975 Total	.024	.045	.978	8.721	4.227	12.948	NA	.038	14.032
980 Total	.030	.016	1.006	11.195	3.463	14.658	NA	.085	15.796
985 Total	.049	.014	.952	6.814	3.796	10.609	NA	.157	11.781
990 Total	.067	.019	1.551	12.766	4.351	17.117	NA	.063	18.817
995 Total	.237	.095	2.901	15.669	3.211	18.881	.001	.146	22.260
000 Total	.313	.094	3.869	19.783	4.749	24.531	(s)	.166	28.973
001 Total	.495	.063	4.068	20.348	5.051	25.398	.002	.131	30.157
002 Total	.422	.080	4.104	19.920	4.754	24.674	.002	.125	29.408
003 Total	.626	.068	4.042	21.060	5.159	26.219	.002	.104	31.061
004 Total	.682	.170	4.365	22.082	6.114	28.197	.013	.117	33.544
005 Total	.762	.088	4.450	22.091	7.157	29.248	.012	.150	34.709
006 Total	.906	.101	4.291	22.085	7.084	29.169	.066	.146	34.679
007 Total	.909	.061	4.723	21.914	6.868	28.781	.055	.175	34.704
008 Total	.855	.089	4.084	21.448	6.237	27.685	.085	.195	32.993
009 Total	.566	.009	3.845	19.699	5.383	25.082	.027	.178	29.706
010 Total	.484	.030	3.834	20.140	5.231	25.371	.004	.154	29.877
011 Total	.327	.035	3.555	19.595	5.010	24.605	.019	.178	28.720
012 January	.018	.003	.288	1.630	.407	2.037	(s)	.014	2.361
February	.012	.002	.277	1.531	.308	1.839	(s)	.012	2.142
March	.016	.004	.272	1.676	.312	1.988	.002	.014	2.296
April	.014	.007	.249	1.597	.325	1.923	.001	.017	2.211
May	.023	.004	.265	1.718	.361	2.080	.002	.019	2.392
June	.017	.001	.266	1.700	.365	2.065	.004	.018	2.371
July	.021	.001	.288	1.665	.351	2.016	.004	.023	2.354
August	.015	.001	.288	1.656	.372	2.028	.007	.022	2.361
September	.020	.002	.264	1.550	.339	1.889	.007	.017	2.199
October	.020	.001	.260	1.549	.324	1.874	.007	.015	2.176
November	.018	.001	.240	1.513	.323	1.837	.007	.016	2.119
December	.017	.002	.258	1.453	.343	1.796	.005	.015	2.093
Total	.212	.028	3.216	19.239	4.132	23.371	.045	.202	27.075
013 January	.015	(s)	.285	1.490	.352	1.842	.004	.017	2.163
February	.009	.ÒÓ1	.243	1.230	.300	1.530	.001	.016	1.800
March	.009	(s)	.254	1.398	.332	1.730	.006	.018	2.017
April	.016	(s)	.226	1.401	.383	1.784	.003	.016	2.044
May	.020	.001	.240	1.449	.390	1.839	.004	.019	2.122
June	.028	(s)	.243	1.401	.331	1.732	.006	.020	2.029
July	.020	(s)	.242	1.512	.361	1.873	.006	.022	2.164
August	.017	.001	.242	1.517	.347	1.864	.006	.022	2.151
September	.019	(s)	.250	1.434	.331	1.765	.006	.018	2.058
October	.017	(s)	.226	1.400	.351	1.751	.007	.017	2.017
November	.020	(s)	.224	1.339	.305	1.644	.008	.018	1.913
December	.018	(s)	.280	1.454	.284	1.737	.009	.017	2.061
Total	.208	.003	2.955	17.025	4.066	21.091	.065	.217	24.541
014 January	.025	(s)	.303	1.421	.283	1.704	.001	.017	2.050
February	F.022	F.008	.253	1.218	.298	1.516	.001	.014	1.814
2-Month Total	<sup>E</sup> .047	€.008	.556	2.639	.582	3.220	.002	.031	3.864
013 2-Month Total	.024	.001	.528	2.720	.652	3.371	.005	.033	3.963
012 2-Month Total	.031	.005	.565	3.160	.715	3.875	.001	.027	4.503

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

b Petroleum products, unfinished oils, pentanes plus, and gasoline blending

and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.

Sources: • Coal: Tables 6.1 and A5. • Coal Coke: 1949–1975—U.S.

Sources: • Coal: Tables 6.1 and A5. • Coal Coke: 1949–1975—U.S. Department of the Interior, Bureau of Mines, Minerals Yearbook. 1976–1980—U.S. Energy Information Administration (EIA), Form EIA-5/5A, "Coke and Coal Chemicals—Monthly/Annual." 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.

components. Does not include biofuels.

<sup>c</sup> Fuel ethanol (minus denaturant) and biodiesel.

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

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

Web Page: See http://www.eia.gov/totalenergy/data/monthly/#summary (Excel

Table 1.4b Primary Energy Exports by Source and Total Net Imports

					Exports					Net Imports <sup>a</sup>
					Petroleum					
	Coal	Coal Coke	Natural Gas	Crude Oil <sup>b</sup>	Petroleum Products <sup>c</sup>	Total	Biofuelsd	Electricity	Total	Total
1950 Total	0.786	0.010	0.027	0.202	0.440	0.642	NA	0.001	1.465	0.448
1955 Total	1.465	.013	.032	.067	.707	.774	NA	.002	2.286	.504
1960 Total	1.023	.009	.012	.018	.413	.431	NA	.003	1.477	2.710
1965 Total	1.376	.021	.027	.006	.386	.392	NA	.013	1.829	4.063
1970 Total	1.936	.061	.072	.029	.520	.549	NA	.014	2.632	5.709
1975 Total	1.761	.032	.074	.012	.427	.439	NA	.017	2.323	11.709
1980 Total	2.421	.051	.049	.609	.551	1.160	NA	.014	3.695	12.101
1985 Total	2.438	.028	.056	.432	1.225	1.657	NA NA	.017	4.196	7.584
1990 Total	2.772	.014	.087	.230	1.594	1.824	NA NA	.055	4.752	14.065
1995 Total	2.318	.034	.156	.200	1.791	1.991	NA NA	.012	4.511	17.750
2000 Total	1.528	.028	.245	.106	2.048	2.154	NA NA	.051	4.006	24.967
2001 Total	1.265	.033	.377	.043	1.996	2.039		.056	3.771	26.386
	1.032	.033	.520	.043	2.023	2.039	(s)	.054	3.669	25.739
2002 Total 2003 Total	1.032	.020 .018	.520 .686	.019	2.023 2.124	2.042	(s) .001	.054	4.054	25.739
2004 Total	1.253	.033	.862	.057	2.151	2.208	.001	.078	4.434	29.110
2005 Total	1.273	.043	.735	.067	2.374	2.442	.001	.065	4.560	30.149
2006 Total	1.264	.040	.730	.052	2.699	2.751	.005	.083	4.873	29.806
2007 Total	1.507	.036	.830	.058	2.949	3.007	.036	.069	5.483	29.220
2008 Total	2.071	.049	.972	.061	3.739	3.800	.089	.083	7.063	25.931
2009 Total	1.515	.032	1.082	.093	4.147	4.240	.035	.062	6.966	22.740
2010 Total	2.101	.036	1.147	.088	4.750	4.838	.047	.065	8.234	21.643
2011 Total	2.751	.024	1.519	.100	5.904	6.004	.108	.051	10.457	18.263
2012 January	.224	.001	.132	.014	.477	.491	.008	.003	.858	1.502
February	.208	.002	.131	.012	.467	.479	.007	.003	.830	1.313
March	.271	.002	.142	.013	.520	.533	.008	.004	.960	1.336
April	.308	.001	.124	.007	.535	.542	.007	.004	.987	1.224
May	.301	.003	.134	.015	.536	.551	.007	.004	.999	1.393
June	.313	.001	.126	.008	.526	.534	.007	.004	.985	1.386
July	.285	.001	.119	.014	.542	.556	.008	.003	.973	1.381
August	.260	.001	.141	.011	.519	.530	.006	.003	.940	1.420
September	.229	.003	.139	.012	.514	.526	.006	.003	.906	1.293
October	.231	.004	.141	.012	.547	.559	.006	.003	.944	1.232
November	.209	.004	.144	.013	.555	.567	.004	.003	.930	1.189
December	.247	.004	.160	.013	.613	.625	.005	.004	1.043	1.050
Total	3.087	.002	1.633	.143	6.350	6.493	.078	.041	11.356	15.719
10tai	3.007	.024	1.055	.143	0.330	0.433	.070	.041	11.550	13.713
2013 January	.236	.001	.156	.013	.474	.487	.005	.003	.888	1.275
February	.212	.001	.134	.020	.477	.498	.004	.003	.851	.949
March	.336	.003	.150	.018	.509	.527	.006	.003	1.024	.993
April	.240	.002	.127	.023	.505	.528	.005	.004	.906	1.139
May	.258	(s)	.143	.022	.567	.590	.006	.003	1.001	1.122
June	.226	.003	.135	.021	.563	.584	.006	.003	.957	1.072
July	.225	.002	.130	.018	.645	.662	.005	.003	1.027	1.137
August	.248	.002	.131	.012	.616	.628	.008	.003	1.021	1.131
September	.231	.001	.124	.017	.579	.596	.007	.003	.961	1.098
October	.242	.001	.123	.020	.659	.679	.007	.003	1.057	.961
November	.209	.003	.115	.035	.616	.651	.008	.003	.990	.923
December	.232	.002	.118	.034	.721	.755	.007	.004	1.119	.942
Total	2.895	.021	1.587	.254	6.932	7.186	.075	.039	11.802	12.739
2014 January	.210	.001	.136	.044	.637	.682	.008	.004	1.040	1.010
2014 January	.210	.001	.136	.039	.514	.553	.006	.004	.916	.897
February 2-Month Total	.216 . <b>426</b>	.002 . <b>002</b>	.134 <b>.270</b>	.039 . <b>083</b>	.514 <b>1.152</b>	.553 <b>1.235</b>	.006 . <b>014</b>	.004 .009	.916 <b>1.956</b>	1.908
Z-IVIOHUH TOTAL	.420	.002	.270	.003	1.132	1.233	.014	euu.	1.900	1.906
2013 2-Month Total 2012 2-Month Total	.448 .432	.001 .003	.290 .263	.033 .026	.952 .943	.985 .970	.009 .015	.006 .006	1.739 1.688	2.223 2.815

<sup>&</sup>lt;sup>a</sup> Net imports equal imports minus exports.

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

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

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

and CSV Illes) for all available annual data beginning in 1949 and monthly data beginning in 1973.

Sources: • Coal: Tables 6.1 and A5. • Coal Coke: 1949–1975—U.S. Department of the Interior, Bureau of Mines, Minerals Yearbook.

1976–1980—U.S. Energy Information Administration (EIA), Form EIA-5/5A, "Coke and Coal Chemicals—Monthly/Annual."

1981 forward—EIA, Quarterly Coal Report, quarterly reports and Table A5. • Natural Gas: Tables 4.1 and A4.

b Crude oil and lease condensate.

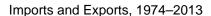
C Petroleum products, unfinished oils, pentanes plus, and gasoline blending components. Does not include biofuels.
 d Through 2010, data are for biodiesel only. Beginning in 2011, data are for fuel

ethanol (minus denaturant) and biodiesel.

Crude Oil and Petroleum Products: Tables 3.3b, 10.4, and A2.

<sup>•</sup> 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>)



# 2,000 – 1,500 – Total Imports Total Exports Energy Exports Energy Imports

1990

1995

2000

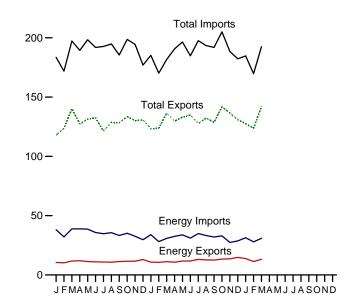
2005

2010

1985

### Imports and Exports, Monthly



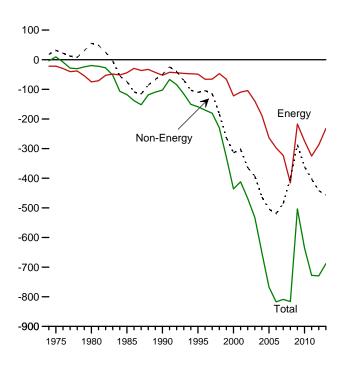


2013

### Trade Balance, 1974-2013

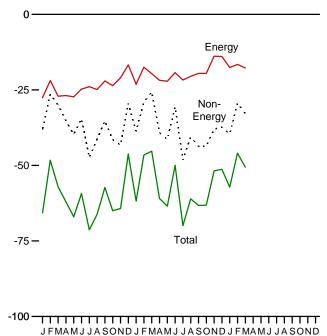
1980

1975



### Trade Balance, Monthly

2012



2013

2014

<sup>&</sup>lt;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 Dollarsa)

		Petroleumb			Energy <sup>c</sup>		Non-	Т	otal Merchandis	e
	Exports	Imports	Balance	Exports	Imports	Balance	Energy Balance	Exports	Imports	Balance
1974 Total	792	24,668	-23,876	3,444	25,454	-22,010	18,126	99,437	103,321	-3,884
1975 Total	907	25,197	-24,289	4,470	26,476	-22,006	31,557	108,856	99,305	9,551
1980 Total	2,833	78,637	-75,803	7,982	82,924	-74,942	55,246	225,566	245,262	-19,696
1985 Total	4,707	50,475	-45,768	9,971	53,917	-43,946	-73,765	218,815	336,526	-117,712
1990 Total	6,901	61,583	-54,682	12,233	64,661	-52,428	-50,068	393,592	496,088	-102,496
1995 Total	6,321	54,368	-48,047	10,358	59,109	-48,751	-110,050	584,742	743,543	-158,801
2000 Total	10,192	119,251	-109,059	13,179	135,367	-122,188	-313,916	781,918	1,218,022	-436,104
2001 Total	8,868	102,747	-93,879	12,494	121,923	-109,429	-302,470	729,100	1,140,999	-411,899
2002 Total	8,569	102,663	-94,094	11,541	115,748	-104,207	-364,056	693,103	1,161,366	-468,263
2003 Total	10,209	132,433	-122,224	13,768	153,298	-139,530	-392,820	724,771	1,257,121	-532,350
2004 Total	13,130	179,266	-166,136	18,642	206,660	-188,018	-462,912	818,775	1,469,704	-650,930
2005 Total	19,155	250,068	-230,913	26,488	289,723	-263,235	-504,242	905,978	1,673,455	-767,477
2006 Total	28,171	299,714	-271,543	34,711	332,500	-297,789	-519,515	1,036,635	1,853,938	-817,304
2007 Total	33,293	327,620	-294,327	41,725	364,987	-323,262	-485,501	1,148,199	1,956,962	-808,763
2008 Total	61,695	449,847	-388,152	76,075	491,885	-415,810	-400,389	1,287,442	2,103,641	-816,199
2009 Total	44,509	251,833	-207,324	54,536	271,739	-217,203	-286,379	1,056,043	1,559,625	-503,582
2010 Total	64,753	333,472	-268,719	80,625	354,982	-274,357	-361,005	1,278,495	1,913,857	-635,362
2011 Total	105,844	436,145	-330,301	128,873	453,872	-324,999	-402,766	1,480,290	2,208,055	-727,765
2012 January	8,706	36,947	-28,241	10,583	38,146	-27,563	-38,120	117,839	183,522	-65,683
February	8,690	31,043	-22,353	10,203	32,092	-21,889	-26,368	123,609	171,866	-48,257
March	9,925	37,963	-28,038	11,766	38,832	-27,066	-30,011	140,233	197,310	-57,077
April	10,094	38,079	-27,985	12,004	38,861	-26,857	-35,155	127,405	189,417	-62,012
May	9,546	37,668	-28,122	11,304	38,603	-27,299	-39,729	131,342	198,370	-67,028
June	9,173	34,897	-25,724	11,019	35,777	-24,758	-34,546	132,547	191,851	-59,304
July	9,135	33,742	-24,607	10,876	34,797	-23,921	-47,375	121,412	192,707	-71,296
August	9,129	34,636	-25,507	10,793	35,672	-24,879	-41,303	128,587	194,769	-66,182
September	9,766	32,410	-22,644	11,283	33,313	-22,030	-35,259	128,198	185,488	-57,289
October	10,038	34,108	-24,070	11,567	35,159	-23,592	-41,423	133,600	198,614	-65,015
November	10,289	31,380	-21,091	11,627	32,611	-20,984	-43,264	130,182	194,431	-64,248
December	11,359	28,535	-17,176	12,998	29,729	-16,731	-29,488	130,756	176,975	-46,219
Total	115,848	411,409	-295,561	136,023	423,591	-287,568	-442,043	1,545,709	2,275,320	-729,611
2013 January	<sup>b</sup> 8,881	<sup>b</sup> 32,361	<sup>b</sup> -23,480	10,825	33,967	-23,142	-38,655	123,390	185,187	-61,797
February	8,915	26,622	-17,707	10,634	28,106	-17,472	-29,099	123,606	170,177	-46,571
March	8,899	29,308	-20,409	11,224	30,844	-19,620	-25,653	136,414	181,687	-45,273
April	8,705	31,072	-22,367	10,737	32,544	-21,807	-39,116	129,728	190,651	-60,923
May	9,621	32,523	-22,902	11,720	33,856	-22,136	-41,350	133,003	196,488	-63,486
June	9,841	29,659	-19,818	11,772	31,036	-19,264	-30,691	134,819	184,774	-49,955
July	11,132	33,468	-22,336	13,153	34,894	-21,741	-48,177	127,610	197,528	-69,918
August	10,761	31,993	-21,232	12,737	33,250	-20,513	-40,537	132,326	193,376	-61,050
September	10,511	30,758	-20,247	12,493	32,032	-19,539	-43,690	128,667	191,895	-63,229
October	11,332	31,623	-20,291	13,407	32,940	-19,533	-43,640	141,841	205,014	-63,173
November	11,542	26,210	-14,668	13,605	27,431	-13,826	-37,970	136,640	188,435	-51,796
December	12,699	27,196	-14,497	14,780	28,730	-13,950	-37,330	130,929	182,209	-51,280
Total	122,839	362,792	-239,953	147,087	379,630	-232,543	-455,907	1,578,972	2,267,421	-688,450
<b>2014</b> January	11,565	29,460	-17,895	13,806	31,377	-17,571	-39,622	_ 127,508	184,701	-57,193
February	8,967	25,663	-16,696	11,303	27,879	-16,576	<sup>R</sup> -29,361	<sup>R</sup> 123,728	<sup>R</sup> 169,665	<sup>R</sup> -45,937
March	10,411	29,001	-18,590	13,229	30,959	-17,730	-32,831	141,961	192,521	-50,561
3-Month Total	30,943	84,125	-53,181	38,338	90,215	-51,877	-101,814	393,197	546,888	-153,691
2013 3-Month Total 2012 3-Month Total	26,694 27,321	88,291 105,953	-61,596 -78,632	32,684 32,552	92,917 109,070	-60,234 -76,518	-93,407 -94,499	383,410 381,681	537,051 552,699	-153,641

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

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

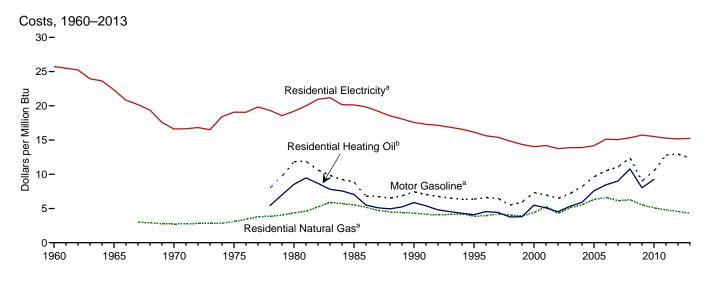
 $<sup>^{\</sup>rm a}$  Prices are not adjusted for inflation. See "Nominal Dollars" in Glossary.  $^{\rm b}$  Through 2012, data are for crude oil, petroleum preparations, liquefied propane and butane, and other mineral fuels. Beginning in 2013, data are for petroleum products and preparations.

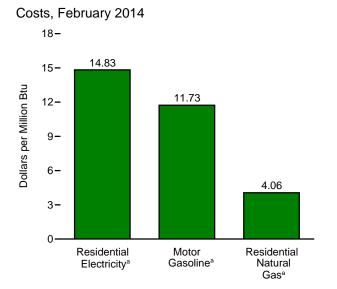
<sup>c</sup> Petroleum, coal, natural gas, and electricity.

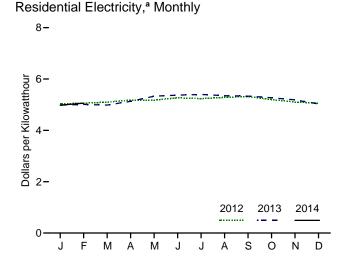
R=Revised.

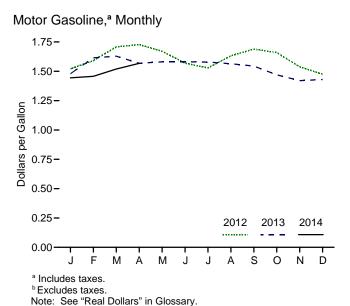
Notes: • Monthly data are not adjusted for seasonal variations. • See Note, "Merchandise Trade Value," at end of section. • Totals may not equal sum of

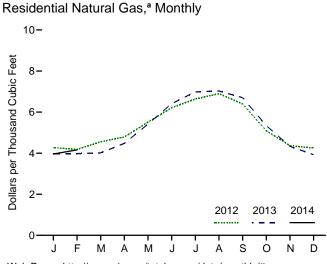
Figure 1.6 Cost of Fuels to End Users in Real (1982–1984) Dollars











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 G	Basoline <sup>b</sup>		dential ng Oil <sup>c</sup>		lential al Gas <sup>b</sup>		ential ricity <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 Kilowatthour	Dollars per Million Btu
1960 Average	29.6	NA	NA	NA	NA	NA	NA	8.8	25.74
1965 Average		NA	NA	NA	NA	NA	NA	7.6	22.33
1970 Average		NA	NA	NA	NA	2.81	2.72	5.7	16.62
1975 Average		NA	NA	NA	NA	3.18	3.12	6.5	19.07
1980 Average		1.482	11.85	1.182	8.52	4.47	4.36	6.6	19.21
1985 Average	107.6	1.112	8.89	0.979	7.06	5.69	5.52	6.87	20.13
1990 Average		0.931	7.44	0.813	5.86	4.44	4.31	5.99	17.56
1995 Average		0.791	6.37	0.569	4.10	3.98	3.87	5.51	16.15
2000 Average		0.908	7.32	0.761	5.49	4.51	4.39	4.79	14.02
2001 Average		0.864	6.97	0.706	5.09	5.44	5.28	4.84	14.20
2002 Average		0.801	6.46	0.628	4.52	4.39	4.28	4.69	13.75
2003 Average		0.890	7.18	0.736	5.31	5.23	5.09	4.74	13.89
2004 Average		1.018	8.20	0.819	5.91	5.69	5.55	4.74	13.89
2005 Average		1.197	9.64	1.051	7.58	6.50	6.33	4.84	14.18
2006 Average		1.307	10.52	1.173	8.46	6.81	6.63	5.16	15.12
2007 Average		1.374	11.06	1.250	9.01	6.31	6.14	5.14	15.05
2008 Average	215.303	1.541	12.40	1.495	10.78	6.45	6.28	5.23	15.33
2009 Average		1.119	9.01	1.112	8.02	5.66	5.52	5.37	15.72
2010 Average	218.056	1.301	10.47	1.283	9.25	5.22	5.11	5.29	15.51
2011 Average		1.590	12.80	NA	NA NA	4.90	4.80	5.21	15.27
2012 January	226.665	1.521	12.24	NA	NA	4.27	4.16	5.03	14.75
February		1.591	12.80	NA	NA	4.18	4.08	5.06	14.82
March		1.708	13.75	NA	NA	4.56	4.44	5.10	14.95
April		1.728	13.91	NA	NA	4.79	4.67	5.18	15.18
May		1.670	13.44	NA	NA	5.51	5.37	5.18	15.18
June		1.570	12.63	NA	NA	6.21	6.06	5.27	15.44
July		1.529	12.30	NA	NA	6.64	6.47	5.24	15.35
August		1.632	13.13	NA	NA	6.90	6.73	5.28	15.48
September		1.689	13.59	NA	NA	6.40	6.24	5.32	15.58
October		1.660	13.36	NA	NA	5.09	4.97	5.20	15.24
November		1.539	12.38	NA	NA	4.37	4.26	5.10	14.96
December	229.601	1.475	11.87	NA	NA	4.25	4.14	5.06	14.83
Average		1.609	12.95	NA	NA	4.67	4.55	5.17	15.17
2013 January	230.280	1.480	11.91	NA	NA	3.98	3.88	4.98	14.60
February		1.614	12.99	NA	NA	3.98	3.88	5.01	14.68
March		1.629	13.11	NA	NA	4.01	3.91	4.98	14.61
April		1.568	12.62	NA	NA	4.48	4.37	5.13	15.04
May		1.581	12.72	NA	NA	5.41	5.28	5.33	15.63
June		1.582	12.73	NA	NA	6.41	6.25	5.37	15.74
July		1.578	12.70	NA	NA	6.98	6.81	5.40	15.82
August		1.564	12.59	NA	NA	7.03	6.86	5.35	15.68
September		1.544	12.43	NA	NA	6.70	6.54	5.33	15.63
October		1.470	11.83	NA	NA	5.34	5.21	5.27	15.45
November		1.420	11.43	NA	NA	4.33	4.23	5.19	15.20
December	233.049	1.430	11.51	NA	NA	3.93	3.83	5.03	14.74
Average		1.538	12.38	NA	NA	4.43	4.33	<b>5.20</b>	15.25
2014 January	233.916	1.444	11.62	NA	NA	R 3.96	R 3.86	4.98	14.60
February		1.458	11.73	NA	NA	R 4.16	R 4.06	R 5.06	R 14.83
March		1.519	12.23	NA	NA	NA	NA	NA	NA
April		1.568	12.62	NA	NA	NA	NA	NA	NA

a Data are U.S. city averages for all items, and are not seasonally adjusted.
 b Includes taxes.
 c Excludes taxes.

Excludes taxes.

R=Revised. NA=Not available.

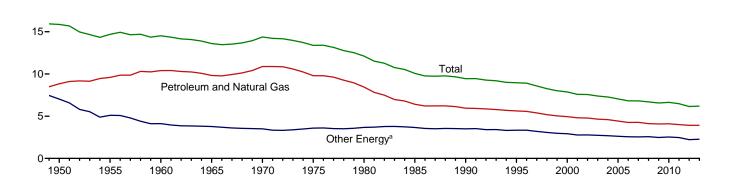
Notes: • See "Real Dollars" in Glossary. • Fuel costs are calculated by using the Urban Consumer Price Index (CPI) developed by the Bureau of Labor Statistics. • Annual averages may not equal average of months due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia.

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

beginning in 1995.

Sources: • Fuel Prices: Tables 9.4 (All Grades), 9.8, and 9.10, adjusted by the CPI; and Monthy Energy Review, September 2012, Table 9.8c. • Consumer Price Index, All Urban Consumers: U.S. Department of Labor, Bureau of Labor Statistics, series ID CUUR0000SA0. • Conversion Factors: Tables A1, A3, A4, and A6.

Figure 1.7 Primary Energy Consumption per Real Dollar of Gross Domestic Product, 1949–2013 (Thousand Btu per Chained (2009) Dollar)



Note: See "Real Dollars" in Glossary.

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

Source: Table 1.7.

20-

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

	E	nergy Consumption		Gross Domestic	Energy Cons	umption per Real D	ollar of GDP		
	Petroleum and Natural Gas			Product (GDP)	Petroleum and Natural Gas	Other Energy <sup>a</sup>	Total		
		Quadrillion Btu		Billion Chained (2009) Dollars	Thousand Btu per Chained (2009) Dollar				
950	19.284	15.332	34.616	2.181.9	8.84	7.03	15.86		
955	26.253	13.955	40.208	2,736.4	9.59	5.10	14.69		
960	32.305	12.782	45.086	3,105.8	10.40	4.12	14.52		
965	39.014	15.001	54.015	3,972.9	9.82	3.78	13.60		
970	51.315	16.523	67.838	4.717.7	10.88	3.50	14.38		
975	52.680	19.284	71.965	5.379.5	9.79	3.58	13.38		
980	54.440	23.627	78.067	6,443.4	8.45	3.67	12.12		
985	48.628	27.764	76.392	7,585.7	6.41	3.66	10.07		
990	53.155	31.330	84.485	8,945.4	5.94	3.50	9.44		
995	57.110	33.920	91.029	10,163.7	5.62	3.34	8.96		
000	62.086	36.729	98.814	12,565.2	4.94	2.92	7.86		
001	60.958	35.210	96.168	12,684.4	4.81	2.78	7.58		
002	61.734	35.911	97.645	12,909.7	4.78	2.78	7.56		
003	61.642	36.301	97.943	13,270.0	4.65	2.74	7.38		
004	63.215	36.946	100.161	13,774.0	4.59	2.68	7.27		
005	62.953	37.328	100.282	14,235.6	4.42	2.62	7.04		
006	62.194	37.435	99.629	14,615.2	4.26	2.56	6.82		
007	63.437	37.881	101.317	14,876.8	4.26	2.55	6.81		
800	61.123	38.169	99.292	14,833.6	4.12	2.57	6.69		
009	58.819	35.777	94.596	14,417.9	4.08	2.48	6.56		
010	60.584	37.432	98.016	14,779.4	4.10	2.53	6.63		
011	60.322	37.139	97.461	15,052.4	4.01	2.47	6.47		
012	60.661	34.343	95.004	15,470.7	3.92	2.22	6.14		
013	61.727	35.804	97.531	15,761.3	3.92	2.27	6.19		

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

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

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

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

25-Light-Duty Vehicles, Short Wheelbase<sup>a</sup> 20-Light-Duty Vehicles, Long Wheelbase<sup>b</sup> 10-5-Heavy-Duty Trucks<sup>c</sup> 1950 1955 1960 1965 1970 1975 1980 1985 1990 1995 2000 2005 2010

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>			ght-Duty Vehicl Long Wheelbas		Heavy-Duty Trucks <sup>c</sup>			А	All Motor Vehicles		
	Mileage	Fuel Consumption	Fuel Economy	Mileage	Fuel Consumption	Fuel Economy	Mileage	Fuel Consumption	Fuel Economy	Mileage	Fuel Consumption	Fuel Economy	
	Miles per Vehicle	Gallons per Vehicle	Miles per Gallon	Miles per Vehicle	Gallons per Vehicle	Miles per Gallon	Miles per Vehicle	Gallons per Vehicle	Miles per Gallon	Miles per Vehicle	Gallons per Vehicle	Miles per Gallon	
1950	9,060	603	15.0	( <sup>e</sup> )	( <sup>e</sup> )	( <sup>e</sup> )	10,316	1,229	8.4	9,321	725	12.8	
1955	9,447	645	14.6	(e)	(e)	( e )	10,576	1,293	8.2	9,661	761	12.7	
1960	9,518	668	14.3	( e )	( e )	(e)	10,693	1,333	8.0	9,732	784	12.4	
1965	9,603	661	14.5	( e )	( e )	( <sup>e</sup> )	10,851	1,387	7.8	9,826	787	12.5	
1970	9,989	737	13.5	8,676	866	10.0	13,565	2,467	5.5	9,976	830	12.0	
1975	9,309	665	14.0	9,829	934	10.5	15,167	2,722	5.6	9,627	790	12.2	
1980	8,813	551	16.0	10,437	854	12.2	18,736	3,447	5.4	9,458	712	13.3	
1985	9,419	538	17.5	10,506	735	14.3	20,597	3,570	5.8	10,020	685	14.6	
1990	10,504	520	20.2	11,902	738	16.1	23,603	3,953	6.0	11,107	677	16.4	
1995	11,203	530	21.1	12,018	694	17.3	26,514	4,315	6.1	11,793	700	16.8	
2000	11,976	547	21.9	11,672	669	17.4	25,617	4,391	5.8	12,164	720	16.9	
2001	11,831	534	22.1	11,204	636	17.6	26,602	4,477	5.9	11,887	695	17.1	
2002	12,202	555	22.0	11,364	650	17.5	27,071	4,642	5.8	12,171	719	16.9	
2003	12,325	556	22.2	11,287	697	16.2	28,093	4,215	6.7	12,208	718	17.0	
2004	12,460	553	22.5	11,184	690	16.2	27,023	4,057	6.7	12,200	714	17.1	
2005	12,510	567	22.1	10,920	617	17.7	26,235	4,385	6.0	12,082	706	17.1	
2006		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	a 22.9	<sup>b</sup> 14,970	ь 877	<sup>b</sup> 17.1	c 28,290	c 4,398	6.4	11,915	693	17.2	
2008	10,290	435	23.7	15,256	880	17.3	28,573	4,387	6.5	11,631	667	17.4	
2009	10,391	442	23.5	15,252	882	17.3	26,274	4,037	6.5	11,631	661	17.6	
2010	10,650	456	23.3	15,474	901	17.2	26,604	4,180	6.4	11,866	681	17.4	
2011	11,150	481	23.2	12,007	702	17.1	26,054	4,128	6.3	11,652	665	17.5	
2012 <sup>P</sup>	11,265	483	23.3	11,882	694	17.1	25,172	3,960	6.4	11,705	664	17.6	

<sup>&</sup>lt;sup>a</sup> Through 1989, data are for passenger cars and motorcycles. For 1990–2006, data are for passenger cars only. Beginning in 2007, data are for light-duty vehicles (passenger cars, light trucks, vans, and sport utility vehicles) with a wheelbase less than or equal to 121 inches.
<sup>b</sup> For 1966–2006, data are for vans, pickup trucks, and sport utility vehicles.

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

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

Sources: • Light-Duty Vehicles, Short Wheelbase: 1990–1994—U.S.
Department of Transportation, Bureau of Transportation Statistics, National Transportation Statistics 1998, Table 4-13. • All Other Data: 1949–1994—Federal Highway Administration (FHWA), Highway Statistics, annual reports, Table VM-1.

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

vans, and sport utility vehicles) with a wheelbase greater than 121 inches.

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

<sup>&</sup>lt;sup>d</sup> Includes buses and motorcycles, which are not separately displayed.

e Included in "Heavy-Duty Trucks."

P=Preliminary.

Table 1.9 Heating Degree-Days by Census Division

			April				Jul	Cumulative y through A		
				Percent	Change				Percent	Change
Census Divisions	Normala	2013	2014	Normal to 2014	2013 to 2014	Normala	2013	2014	Normal to 2014	2013 to 2014
New England Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont	583	576	596	2	3	6,264	5,889	6,628	6	13
Middle Atlantic New Jersey, New York, Pennsylvania	496	472	495	(s)	5	5,655	5,359	6,048	7	13
East North Central Illinois, Indiana, Michigan, Ohio, Wisconsin	510	540	497	-3	-8	6,209	6,125	6,987	13	14
West North Central lowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota	472	629	526	11	-16	6,493	6,549	7,186	11	10
South Atlantic Delaware, Florida, Georgia, Maryland and the District of Columbia, North Carolina, South Carolina, Virginia, West Virginia	179	180	171	-4	-5	2,785	2,708	2,892	4	7
East South Central Alabama, Kentucky, Mississippi, Tennessee	216	236	185	-14	-22	3,521	3,471	3,844	9	11
West South Central Arkansas, Louisiana, Oklahoma, Texas	94	163	117	NM	NM	2,269	2,094	2,620	15	25
Mountain Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming	426	439	370	-13	-16	4,894	4,646	4,433	-9	-5
Pacific <sup>b</sup> California, Oregon, Washington	298	243	231	-22	-5	2,970	2,768	2,433	-18	-12
U.S. Average <sup>b</sup>	345	358	332	-4	-7	4,326	4,171	4,539	5	9

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

b Excludes Alaska and Hawaii. (s)=Less than 0.5 percent and greater than -0.5 percent. NM=Not meaningful (because "Normal" is less than 100 or ratio is incalculable). Notes: Degree-days are relative measurements of outdoor air temperature used as an index for heating and cooling energy requirements. Heating degree-days are the number of degrees that the daily average temperature falls below 65° F. Cooling degree-days are the number of degrees that the daily average temperature 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). 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.

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.

b Excludes Alaska and Hawaii.

Table 1.10 Cooling Degree-Days by Census Division

			April					Cumulative ary through		
				Percent	Change				Percent	Change
Census Divisions	Normal <sup>a</sup>	2013	2014	Normal to 2014	2013 to 2014	Normala	2013	2014	Normal to 2014	2013 to 2014
New England Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont	0	0	0	NM	NM	0	0	0	NM	NM
Middle Atlantic New Jersey, New York, Pennsylvania	0	2	0	NM	NM	0	2	0	NM	NM
East North Central Illinois, Indiana, Michigan, Ohio, Wisconsin	1	2	0	NM	NM	2	2	0	NM	NM
West North Central lowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota	6	4	1	NM	NM	9	4	1	NM	NM
South Atlantic Delaware, Florida, Georgia, Maryland and the District of Columbia, North Carolina, South Carolina, Virginia,	70	100	89	NM	NM	183	196	182		-7
West Virginia  East South Central Alabama, Kentucky,									-1	·
Mississippi, Tennessee  West South Central  Arkansas, Louisiana, Oklahoma, Texas	26 94	38 98	23	NM NM	NM NM	56 175	42 164	24 158	-10	NM -4
Mountain Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming	35	35	33	NM	NM	49	50	47	NM	NM
Pacific <sup>b</sup> California, Oregon, Washington	14	4	9	NM	NM	21	4	9	NM	NM
U.S. Average <sup>b</sup>	30	35	34	NM	NM	65	62	57	NM	NM

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

 $\mbox{NM=Not}$  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.  $\bullet$  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.

b Excludes Alaska and Hawaii.

### **Energy Overview**

**Note.** Merchandise Trade Value. Imports data presented are based on the customs values. Those values do not include insurance and freight and are consequently lower than the cost, insurance, and freight (CIF) values, which are also reported by the Bureau of the Census. All exports data, and imports data through 1980, are on a free alongside ship (f.a.s.) basis.

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

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

### **Table 1.5 Sources**

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

### **Petroleum Exports**

1974–1987: "U.S. Exports," FT-410, December issues. 1988 and 1989: "Report on U.S. Merchandise Trade," Final Revisions.

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

1993–2009: "U.S. International Trade in Goods and Services," Annual Revisions.

2010–2012: "U.S. International Trade in Goods and Services," 2012 Annual Revisions.

2013 and 2014: "U.S. International Trade in Goods and Services," FT-900, monthly.

### **Petroleum Imports**

1974–1987: "U.S. Merchandise Trade," FT-900, December issues, 1975–1988.

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

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

1994–2009: "U.S. International Trade in Goods and Services," Annual Revisions.

2010–2012: "U.S. International Trade in Goods and Services," 2012 Annual Revisions.

2013 and 2014: "U.S. International Trade in Goods and Services," FT-900, monthly.

### **Energy Exports and Imports**

1974–1987: U.S. merchandise trade press releases and database printouts for adjustments.

1988: January–July, monthly FT-900 supplement, 1989 issues. August–December, monthly FT-900, 1989 issues.

1989: Monthly FT-900, 1990 issues.

1990–1992: "U.S. Merchandise Trade," Final Report.

1993–2009: "U.S. International Trade in Goods and Services," Annual Revisions.

2010–2012: "U.S. International Trade in Goods and Services," 2012 Annual Revisions.

2013 and 2014: "U.S. International Trade in Goods and Services," FT-900, monthly.

### Petroleum, Energy, and Non-Energy Balances

Calculated by the U.S. Energy Information Administration.

### **Total Merchandise**

1974–1987: U.S. merchandise trade press releases and database printouts for adjustments.

1988: "Report on U.S. Merchandise Trade, 1988 Final Revisions," August 18, 1989.

1989: "Report on U.S. Merchandise Trade, 1989 Revisions," July 10, 1990.

1990: "U.S. Merchandise Trade, 1990 Final Report," May 10, 1991, and "U.S. Merchandise Trade, December 1992," February 18, 1993, page 3.

1991: "U.S. Merchandise Trade, 1992 Final Report," May 12, 1993.

1992–2009: "U.S. International Trade in Goods and Services," Annual Revisions.

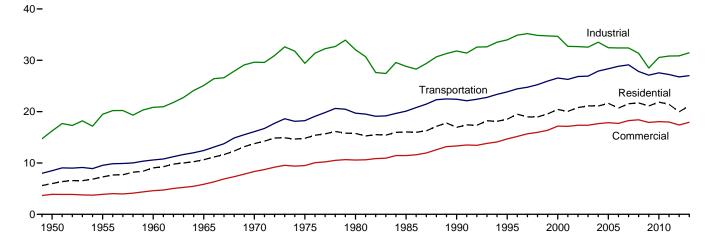
2010–2012: "U.S. International Trade in Goods and Services," 2012 Annual Revisions.

2013 and 2014: "U.S. International Trade in Goods and Services," FT-900, monthly.

## 2. Energy Consumption by Sector

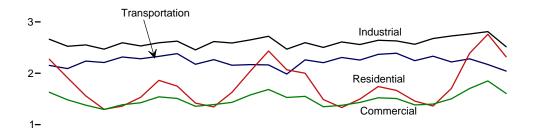
Figure 2.1 Energy Consumption by Sector (Quadrillion Btu)

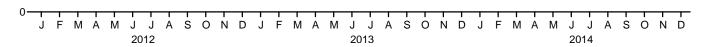
Total Consumption by End-Use Sector, 1949–2013



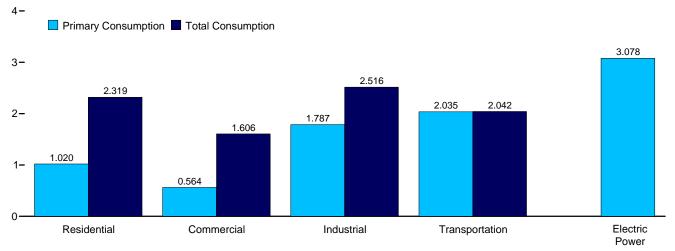
Total Consumption by End-Use Sector, Monthly

4-





By Sector, February 2014



 $Web\ Page:\ http://www.eia.gov/totalenergy/data/monthly/\#consumption.$ 

Source: Table 2.1.

**Table 2.1 Energy Consumption by Sector** 

(Trillion Btu)

				End-Use	e Sectors				Electric Power		
	Reside	ential	Comme	ercial <sup>a</sup>	Indus	trial <sup>b</sup>	Transpo	rtation	Sector <sup>c,d</sup>	Dalamain n	Dulman
	Primarye	Total <sup>f</sup>	Primarye	Total <sup>f</sup>	Primarye	Total <sup>f</sup>	Primarye	Total <sup>f</sup>	Primarye	Balancing Item <sup>g</sup>	Primary Total <sup>h</sup>
1950 Total	4,829	5,989	2,834	3,893	13,890	16,241	8,383	8,492	4,679	(s)	34,616
1955 Total		7,278	2,561	3,895	16,103	19,485	9,474	9,550	6,461	(s)	40,208
1960 Total	6,651	9,039	2,723	4,609	16,996	20,842	10,560	10,596	8,158	(s)	45,086
1965 Total	7,279	10,639	3,177	5,845	20,148	25,098	12,399	12,432	11,012	(s)	54,015
1970 Total	8,322	13,766	4,237	8,346	22,964	29,628	16,062	16,098	16,253	(s)	67,838
975 Total		14,813	4,059	9,492	21,434	29,413	18,210	18,245	20,270	1	71,965
980 Total	7,439	15,753	4,105	10,578	22,595	32,039	19,659	19,697	24,269	-1	78,067
985 Total	7,148	16,041	3,732	11,451	19,443	28,816	20,041	20,088	26,032	-4	76,392
1990 Total	-,	16,945	3,896	13,320	21,180	31,810	22,366	22,420	d 30,495	-9	84,485
1995 Total		18,519	4,101	14,690	22,719	33,971	23,791	23,846	33,479	3	91,029
2000 Total		20,425	4,278	17,175	22,824	34,664	26,489	26,548	38,062	2	98,814
2001 Total	6,868	20,042	4,084	17,137	21,794	32,720	26,213	26,275	37,215	-6 5	96,168
2002 Total		20,791	4,132	17,345	21,799	32,662	26,781	26,842	38,016		97,645
2003 Total	7,238 6,993	21,125	4,298	17,346	21,536	32,555	26,845	26,919	38,028	-1 -6	97,943 100,161
2004 Total 2005 Total		21,092 21,626	4,232 4.051	17,659 17.857	22,412 21,411	33,519 32,446	27,817 28,272	27,895 28,353	38,712 39,638	-6 (s)	100,161
2006 Total		20,688	3,747	17,057	21,536	32,446 32,401	28,751	28,830	39,636 39,428	(s) (s)	99,629
	6.608	21,542	3,747	18,256	21,330	32,401	29,029	29,116	40,380	(s) -1	101.317
2007 Total 2008 Total	6,916	21,695	4,098	18,405	20,553	31,362	29,029 27,747	27,829	39,978	1	99,292
2009 Total		21,111	4,052	17,890	18,776	28,488	27,025	27,108	38,076	(s)	94,596
2010 Total	6,594	21,853	4,016	18,056	20,296	30,543	27,477	27,558	39,627	7	98,016
2011 Total	6,500	21,411	4,055	17,973	20,444	30,833	27,155	27,236	39,301	8	97,461
2012 January	974	2,273	544	1,630	1,845	2,662	2,147	2,153	3,209	-1	8,718
February	820	1,913	470	1,483	1,732	2,525	2,083	2,090	2,905	-2	8,008
March	548	1,560	335	1,379	1,724	2,552	2,231	2,237	2,888	-5	7,723
April	402	1,297	268	1,293	1,646	2,469	2,203	2,209	2,749	-4	7,263
May	288	1,360	208	1,386	1,694	2,594	2,311	2,317	3,156	-2	7,655
June	243	1,531	189	1,426	1,655	2,531	2,276	2,283	3,408	3	7,773
July		1,862	182	1,540	1,672	2,593	2,322	2,329	3,919	7	8,330
August	236	1,749	198	1,509	1,724	2,625	2,375	2,382	3,731	4	8,269
September	238	1,419	198	1,356	1,640	2,455	2,168	2,174	3,160	2	7,406
October		1,343	271	1,389	1,778	2,618	2,259	2,265	2,941	(s)	7,614
November		1,630	375	1,433	1,768	2,589	2,150	2,156	2,896	(s)	7,808
December	822	2,041	467	1,578	1,813	2,649	2,162	2,169	3,173	(s)	8,436
Total	5,783	19,971	3,705	17,403	20,690	30,865	26,688	26,763	38,136	2	95,004
2013 January	1,069 927	2,433 2.067	568 511	1,683	1,908	2,719 2,469	2,156 1,978	2,163 1,985	3,297 2,915	(s) -1	8,998 8.048
February	927 839	2,007	471	1,528 1,549	1,717 1,785	2,469 2,596	2,254	,	2,915 3,057	-1 -1	8,048 8,405
March								2,261			
April		1,488 1,331	308 218	1,346 1,374	1,709 1,737	2,504 2,609	2,200 2,300	2,206 2,306	2,815 3,044	-3 -3	7,541 7,619
May	322 246	1,331	179	1,374	1,737	2,5609	2,300	2,306	3,044	-3 2	7,619
June July		1,497	181	1,522	1,764	2,560	2,250	2,257	3,731	5	8,278
August	235	1,741	185	1,522	1,754	2,630	2,383	2,300	3,639	3	8,195
September	245	1,458	191	1,383	1,760	2,564	2,383	2,390	3,215	(s)	7,650
October		1,436	256	1,398	R 1,858	2,677	2,327	2,333	2,972	(s) -2	7,765
November	665	1,703	404	1,502	1,903	2,726	2,213	2,333	2,964	-2 -2	8,148
December	1.023	2,388	545	1,702	1,955	2,765	2,274	2,213	3,340	2	9,138
Total	6,675	21,131	4,018	17,927	21,540	31,461	26,934	27,012	38,365	(s)	97,531
014 January	R 1,220	R 2,759	<sup>R</sup> 650	<sup>R</sup> 1,851	<sup>R</sup> 1,994	R 2,810	2,162	2,170	3,564	4	R 9,595
February	1,020	2,319	564	1,606	1,787	2,516	2,035	2,042	3,078	2	8,486
2-Month Total	2,239	5,078	1,214	3,457	3,782	5,326	4,198	4,212	6,642	6	18,080
2013 2-Month Total 2012 2-Month Total	1,996 1,794	4,500 4,186	1,079 1,014	3,211 3,113	3,625 3,577	5,188 5,187	4,134 4,230	4,148 4,243	6,213 6,114	(s) -3	17,046 16,726

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

b Industrial sector, including industrial combined-heat-and-power (CHP) and

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

h Primary energy consumption total. See Table 1.3.

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

Notes: • Data are estimates, except for the electric power sector. • See Note 2, "Classification of Power Plants Into Energy-Use Sectors," at end of Section 7. • See Note 2, "Energy Consumption Data and Surveys," at end of section.

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

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

Sources: Tables 1.3 and 2.2-2.6.

industrial electricity-only plants.

<sup>&</sup>lt;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.

d Through 1988, data are for electric utilities only. Beginning in 1989, data are

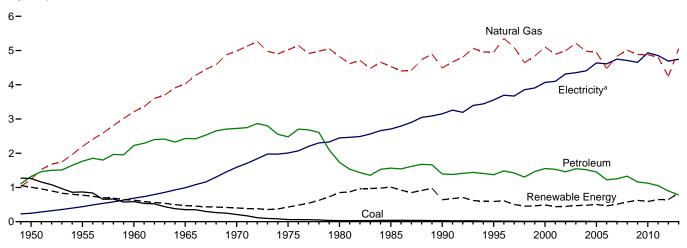
for electric utilities and independent power producers.

See "Primary Energy Consumption" in Glossary.

See "Primary Energy Consumption in Giossary.
 Total energy consumption in the end-use sectors consists of primary energy consumption, electricity retail sales, and electrical system energy losses. See Note 1, "Electrical System Energy Losses," at end of section.
 A balancing item. The sum of primary consumption in the five energy-use

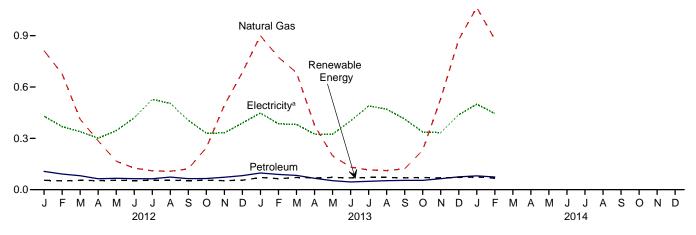
Figure 2.2 Residential Sector Energy Consumption (Quadrillion Btu)

By Major Source, 1949-2013

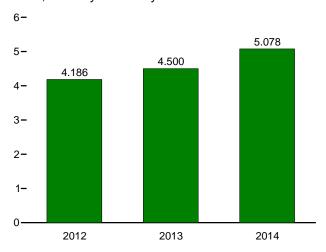


By Major Source, Monthly

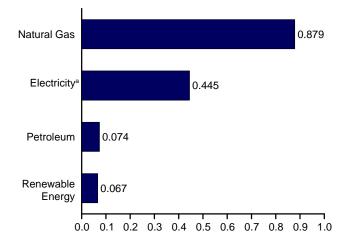




Total, January-February



By Major Source, February 2014



<sup>&</sup>lt;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	/ Consumpt	iona						
		Fossil	Fuels			Renewab	le Energy <sup>b</sup>			Electricity	Electrical System	
	Coal	Natural Gas <sup>c</sup>	Petro- leum	Total	Geo- thermal	Solar/ PV	Bio- mass	Total	Total Primary	Retail Sales	Energy Losses <sup>e</sup>	Total
1950 Total	1,261	1,240	1,322	3,824	NA	NA	1,006	1,006	4,829	246	913	5,989
1955 Total	867	2,198	1,767	4,833	NA	NA	775	775	5,608	438	1,232	7,278
1960 Total	585	3,212	2,227	6,024	NA	NA	627	627	6,651	687	1,701	9,039
1965 Total	352	4,028	2,432	6,811	NA	NA	468	468	7,279	993	2,367	10,639
1970 Total	209	4,987	2,725	7,922	NA	NA	401	401	8,322	1,591	3,852	13,766
1975 Total	63	5,023	2,479	7,564	NA	NA	425	425	7,990	2,007	4,817	14,813
1980 Total	31 39	4,825	1,734	6,589	NA	NA NA	850	850	7,439	2,448	5,866	15,753
1985 Total	39 31	4,534 4,491	1,565 1,394	6,138 5,916	NA 6	56	1,010 580	1,010 641	7,148 6,557	2,709 3,153	6,184 7,235	16,041 16,945
1990 Total 1995 Total	17	4,491	1,394	6.345	7	64	520	591	6,936	3,155	8.026	18.519
2000 Total	11	5,105	1,554	6,670	9	61	420	489	7,159	4,069	9,197	20,425
2000 Total	12	4.889	1,529	6.430	9	59	370	438	6,868	4,100	9.074	20,423
2002 Total	12	4,995	1,457	6,464	10	57	380	448	6,912	4,317	9,562	20,791
2003 Total	12	5.209	1,547	6.768	13	57	400	470	7,238	4.353	9.534	21.125
2004 Total	11	4,981	1,520	6,513	14	57	410	481	6,993	4,408	9,691	21,092
2005 Total	8	4.946	1,451	6.406	16	58	430	504	6,909	4.638	10,079	21,626
2006 Total	6	4,476	1,224	5,706	18	63	380	462	6,168	4,611	9,909	20,688
2007 Total	8	4,835	1,254	6,097	22	70	420	512	6,608	4,750	10,183	21,542
2008 Total	NA	5,010	1,330	6,340	26	80	470	577	6,916	4,708	10,070	21,695
2009 Total	NA	4,883	1,161	6,044	33	89	500	622	6,666	4,656	9,789	21,111
2010 Total	NA	4,878	1,125	6,003	37	114	440	591	6,594	4,933	10,326	21,853
2011 Total	NA	4,805	1,052	5,857	40	153	450	643	6,500	4,855	10,057	21,411
2012 January	NA	812	107	919	3	16	36	55	974	430	870	2,273
February	NA	677	92	769	3	15	33	51	820	368	725	1,913
March	NA	412	81	493	3	16	36	55	548	339	672	1,560
April	NA	285	64	349	3	15	34	53	402	301	594	1,297
May	NA	167	66	233	3	16	36	55	288	344	728	1,360
June	NA	126	64	190	3	15	34	53	243	419	869	1,531
July	NA	110	64	174	3	16	36	55	229	527	1,106	1,862
August	NA	108	74	181	3	16	36	55	236	505	1,008	1,749
September	NA	121	64	185	3	15	34	53	238	405	775	1,419
October	NA NA	245	65	311	3	16	36	55	365	330	648 680	1,343
November December	NA NA	493 685	73 82	566 767	3 3	15 16	34 36	53 55	619 822	331 390	829	1,630 2,041
Total	NA NA	4,242	896	5,137	40	186	<b>420</b>	646	5,783	4,690	9,498	19,971
<b>2013</b> January	NA	900	98	998	3	19	49	71	1,069	448	916	2,433
February	NA	774	89	863	3	17	49	64	927	385	755	2,433
March	NA	684	84	768	3	19	49	71	839	381	780	2,007
April	NA	377	66	443	3	18	48	69	512	325	650	1,488
May	NA	198	53	251	3	19	49	71	322	324	685	1,331
June	NA	132	45	177	3	18	48	69	246	402	850	1,497
July	NA	116	49	165	3	19	49	71	236	489	1,016	1,741
August	NA	111	53	164	3	19	49	71	235	470	960	1,665
September	NA	122	55	176	3	18	48	69	245	413	800	1,458
October	NA	230	54	285	3	19	49	71	356	337	668	1,360
November	NA	532	64	596	3	18	48	69	665	334	704	1,703
December Total	NA <b>NA</b>	877 <b>5,052</b>	75 <b>784</b>	952 <b>5,836</b>	3 <b>40</b>	19 <b>219</b>	49 <b>580</b>	71 <b>839</b>	1,023 <b>6,675</b>	438 <b>4,746</b>	927 <b>9,710</b>	2,388 <b>21,131</b>
		•		,					,	,	·	•
2014 January February	NA NA	<sup>R</sup> 1,065 879	81 74	<sup>R</sup> 1,146 953	3 3	21 19	49 44	74 67	R 1,220 1,020	500 445	1,040 854	R 2,759 2,319
2-Month Total	NA NA	1,944	155	2,098	6	41	94	141	2,239	945	1,894	5,078
2013 2-Month Total 2012 2-Month Total	NA NA	1,674 1,490	187 198	1,860 1,688	6 6	35 31	94 69	136 106	1,996 1,794	833 798	1,670 1,594	4,500 4,186

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

section.

R=Revised. NA=Not available.

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

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

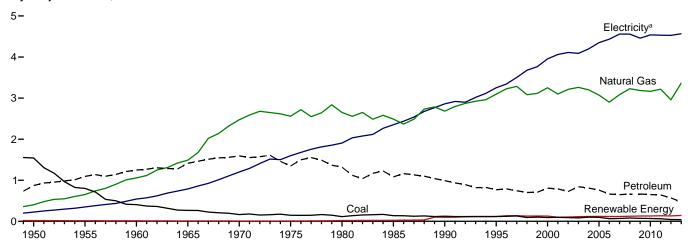
Sources: Tables 2.6, 3.8a, 4.3, 6.2, 7.6, 10.2a, A4, A5, and A6.

b See Table 10.2a for notes on series components.

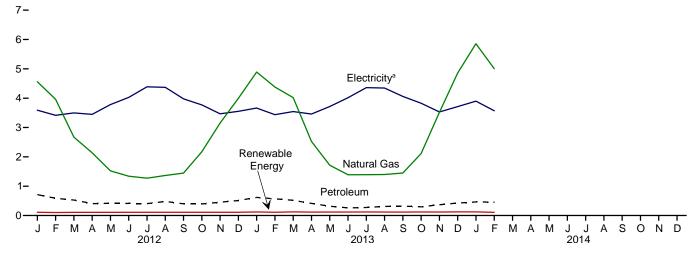
b See Table 10.2a for notes on series components.
 c Natural gas only; excludes the estimated portion of supplemental gaseous fuels. See Note 3, "Supplemental Gaseous Fuels," at end of Section 4.
 d Electricity retail sales to ultimate customers reported by electric utilities and, beginning in 1996, other energy service providers.
 e Total losses are calculated as the primary energy consumed by the electric power sector minus the energy content of electricity retail sales. Total losses are allocated to the end-use sectors in proportion to each sector's share of total electricity retail sales. See Note 1, "Electrical System Energy Losses," at end of

Figure 2.3 Commercial Sector Energy Consumption (Quadrillion Btu)

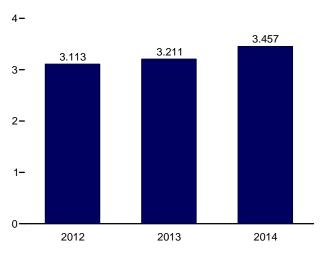
By Major Source, 1949-2013



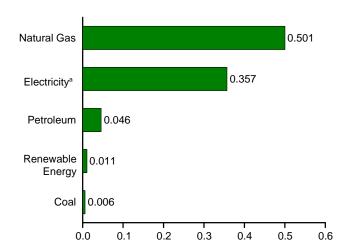
By Major Source, Monthly



Total, January-February



By Major Source, February 2014



Web Page: http://www.eia.gov/totalenergy/data/monthly/#consumption.

Source: Table 2.3.

<sup>&</sup>lt;sup>a</sup> Electricity retail sales.

**Table 2.3 Commercial Sector Energy Consumption** 

(Trillion Btu)

					Primary	Consump	tiona							
		Fossi	l Fuels			R	enewabl	e Energy	<b>y</b> b			Flag	Flantsian	
	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	Elec- tricity Retail Sales <sup>f</sup>	System Energy Losses	Total
1950 Total	1,542	401	872	2,815	NA	NA	NA	NA	19	19	2,834	225	834	3,893
1955 Total	801	651	1,095	2,547	NA	NA	NA	NA	15	15	2,561	350	984	3,895
1960 Total	407	1,056	1,248	2,711	NA	NA	NA	NA	12 9	12 9	2,723	543	1,344	4,609
1965 Total	265 165	1,490 2,473	1,413 1,592	3,168 4,229	NA NA	NA NA	NA NA	NA NA	8	8	3,177 4,237	789 1,201	1,880 2,908	5,845 8.346
1970 Total 1975 Total	147	2,473	1,392	4,229	NA NA	NA NA	NA NA	NA NA	8	8	4,237	1,598	2,900 3.835	9,492
1980 Total	115	2,556	1,346	4,031	NA NA	NA NA	NA	NA	21	21	4,105	1,906	4,567	10,578
1985 Total	137	2,488	1.083	3.708	NA	NA	NA	NA	24	24	3.732	2.351	5.368	11,451
1990 Total	124	2,682	991	3.798	1	3	-	-	94	98	3.896	2,860	6,564	13.320
1995 Total	117	3,096	769	3.982	1	5	_	_	113	118	4,101	3,252	7,338	14,690
2000 Total	92	3,252	807	4,150	1	8	_	_	119	128	4,278	3,956	8,942	17,175
2001 Total	97	3,097	790	3,984	1	8	-	-	92	101	4,084	4,062	8,990	17,137
2002 Total	90	3,212	726	4,028	(s)	9	-	-	95	104	4,132	4,110	9,104	17,345
2003 Total	82	3,261	842	4,185	1	11	-	-	101	113	4,298	4,090	8,958	17,346
2004 Total	103	3,201	809	4,113	1	12	-	-	105	118	4,232	4,198	9,229	17,659
2005 Total	97	3,073	761	3,932	1	14	-	-	105	120	4,051	4,351	9,455	17,857
2006 Total	65	2,902	663	3,629	1	14	-	-	103	118	3,747	4,435	9,529	17,710
2007 Total	70	3,085	649	3,805	1	14	- (-)	_	103	118	3,922	4,560	9,774	18,256
2008 Total	81 73	3,228	664 663	3,973	1 1	15 17	(s)		109 112	125 129	4,098	4,558	9,749	18,405
2009 Total 2010 Total	73 70	3,187 3.165	651	3,923 3,886	i	19	(s) (s)	(s) (s)	111	130	4,052 4.016	4,460 4.539	9,378 9.501	17,890 18,056
2011 Total	62	3,103	641	3,919	(s)	20	(5)	(s)	115	136	4,055	4,533	9,388	17,973
2011 10tal	02	3,210	041	3,313	(5)	20		(5)	113	130	4,000	4,551	3,300	17,373
2012 January	5	456	71	533	(s)	2	(s)	(s)	9	11	544	359	727	1,630
February	5	396	59	459	(s)	2	(s)	(s)	9	10	470	341	672	1,483
March	4	267	53	325	(s)	2	(s)	(s)	9	11	335	350	694	1,379
April	3	214	41	257	(s)	2	(s)	(s)	9	11	268	345	681	1,293
May	3	152	42	197	(s)	2	(s)	(s)	9	11	208	378	799	1,386
June	3	134	41	178	(s)	2	(s)	(s)	9	11	189	403	834	1,426
July	3	127	41	171	(s)	2	(s)	(s)	9	11	182	439	919	1,540
August	3	136	48	187	(s)	2	(s)	(s)	9	11	198	437	873	1,509
September	3	145	40	187	(s)	2 2	(s)	(s)	9	11	198	398	760	1,356
October	3 4	217 315	39 45	260 364	(s)	2	(s)	(s)	9	11	271 375	377 347	741 711	1,389 1.433
November	5	400	45 51	364 455	(s)	2	(s)	(s)	9	11 11	375 467	347 355	711 756	1,433
December <b>Total</b>	44	<b>2,960</b>	571	3,574	(s) (s)	20	(s) <b>1</b>	(s) <b>1</b>	109	131	3,705	4,528	9,170	17,403
2013 January	5	489	62	556	(s)	2	(s)	(s)	10	12	568	366	749	1,683
February	5	438	57	500	(s)	2	(s)	(s)	9	11	511	344	674	1,528
March	5	402	52	458	(s)	2	(s)	(s)	10	12	471	354	724	1,549
April	3	253	41	297	(s)	2	(s)	(s)	10	12	308	346	692	1,346
May	3	171	32	206	(s)	2	(s)	(s)	10	12	218	372	785	1,374
June	3	139	26	168	(s)	2	(s)	(s)	10	12	179	401	850	1,431
July	3	139	28	169	(s)	2	(s)	(s)	10	12	181	436	905	1,522
August	3	140	31	173	(s)	2	(s)	(s)	10	12	185	435	888	1,508
September	2	145	32	179	(s)	2	(s)	(s)	10	12	191	406	786	1,383
October	3	211	30	244	(s)	2	(s)	(s)	10	12	256	383	759	1,398
November	4	352	37	392	(s)	2	(s)	(s)	10	12	404	353	745	1,502
December Total	4 <b>41</b>	486 <b>3,365</b>	43 <b>469</b>	533 <b>3,875</b>	(s) <b>(s)</b>	2 <b>20</b>	(s) <b>3</b>	(s) <b>1</b>	10 <b>119</b>	12 <b>143</b>	545 <b>4,018</b>	371 <b>4,567</b>	786 <b>9,342</b>	1,702 <b>17,927</b>
2014 January	6	586	46	638	(s)	2	(s)	(s)	10	12	<sup>R</sup> 650	390	811	R 1,851
February	6	501	46	553	(s)	2	(s)	(s)	9	11	564	357	685	1,606
2-Month Total	12	1,086	92	1,191	(s)	3	(s)	(s)	19	23	1,214	747	1,497	3,457
2013 2-Month Total 2012 2-Month Total	10 10	927 852	118 130	1,055 992	(s) (s)	3 3	(s) (s)	(s) (s)	20 18	23 21	1,079 1,014	710 701	1,422 1,399	3,211 3,113

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

Btu. Notes: Btu.

Notes: • Data are estimates, except for coal totals beginning in 2008; hydroelectric power; solar/PV; wind; and electricity retail sales beginning in 1979.

• The commercial sector includes commercial combined-heat-and-power (CHP) and commercial electricity-only plants. See Note 2, "Classification of Power Plants Into Energy-Use Sectors," at end of Section 7. • See Note 2, "Energy Consumption Data and Surveys," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia

and the District of Columbia.

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

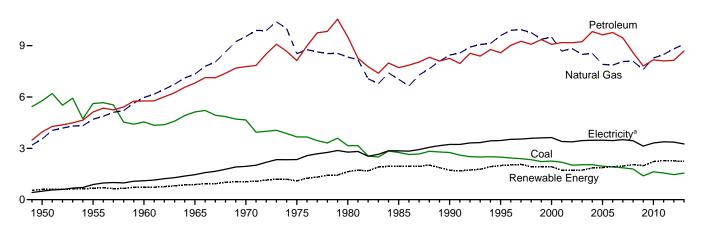
data beginning in 1973. Sources: Tables 2.6, 3.8a, 4.3, 6.2, 7.6, 10.2a, A4, A5, and A6.

a See "Primary Energy Consumption" in Glossary.
b See Table 10.2a for notes on series components and estimation.
c Natural gas only; excludes the estimated portion of supplemental gaseous fuels. See Note 3, "Supplemental Gaseous Fuels," at end of Section 4.
d Does not include biofuels that have been blended with petroleum—biofuels are included in "Biomass."
e Conventional hydroelectric power.
f Electricity retail sales to ultimate customers reported by electric utilities and, beginning in 1996, other energy service providers.
g Total losses are calculated as the primary energy consumed by the electric power sector minus the energy content of electricity retail sales. Total losses are allocated to the end-use sectors in proportion to each sector's share of total electricity retail sales. See Note 1, "Electrical System Energy Losses," at end of section.

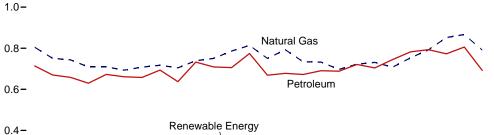
Figure 2.4 Industrial Sector Energy Consumption (Quadrillion Btu)

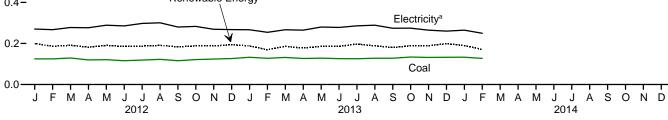
By Major Source, 1949-2013

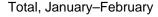


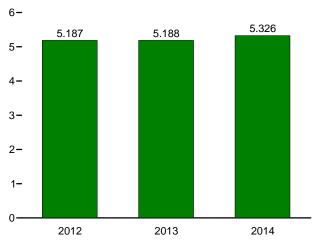


# By Major Source, Monthly

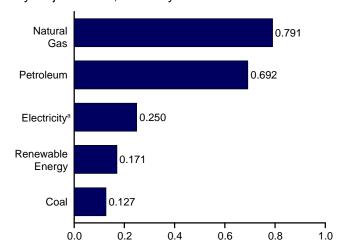








# By Major Source, February 2014



<sup>&</sup>lt;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)

•		<u>,                                      </u>			Primar	y Consum	ptiona							
		Fossi	l Fuels			R	enewable	Energy <sup>b</sup>	ı					
	Coal	Natural Gas <sup>c</sup>	Petro- leum <sup>d</sup>	Totale	Hydro- electric Power <sup>f</sup>	Geo- thermal	Solar/ PV	Wind	Bio- mass	Total	Total Primary	Elec- tricity Retail Sales <sup>g</sup>	Electrical System Energy Losses <sup>h</sup>	Total <sup>e</sup>
1950 Total 1955 Total 1960 Total 1965 Total 1965 Total 1970 Total 1970 Total 1975 Total 1980 Total 1980 Total 1995 Total 1990 Total 2000 Total 2001 Total 2002 Total 2003 Total 2005 Total 2006 Total 2006 Total 2007 Total 2008 Total 2008 Total 2008 Total 2009 Total 2001 Total 2001 Total 2011 Total	5,781 5,620 4,543 5,127 4,656 3,655 2,760 2,756 2,488 2,256 2,192 2,041 2,041 2,041 1,954 1,954 1,793 1,393 1,393 1,561	3,546 4,701 5,973 7,339 9,536 8,532 8,433 7,032 8,451 9,592 9,500 8,676 8,832 8,488 8,550 7,907 7,861 8,074 8,083 7,607 8,278 8,481	3,960 5,123 5,766 6,813 7,776 8,127 9,509 7,714 8,251 9,178 9,168 9,225 9,633 9,775 9,451 8,588 7,814 8,588 7,814 8,588	13,288 15,434 16,277 19,260 21,911 20,3962 17,492 19,463 20,727 20,896 20,075 20,079 19,811 19,538 19,606 19,414 18,506 16,791 18,075 18,161	69 38 39 33 34 32 33 33 31 55 42 33 39 43 32 29 17 18 16	NA NA NA NA NA NA S S S S S S S S S S S	NA N	NA NA NA NA NA NA 	532 631 680 855 1,019 1,063 1,693 1,881 1,681 1,676 1,679 1,817 1,837 1,837 1,837 1,837 1,837 2,026 1,963	602 669 719 888 1,053 1,053 1,633 1,951 1,717 1,992 1,720 1,725 1,853 1,873 1,873 1,985 2,047 1,985 2,047 1,985 2,221 2,223	13,890 16,103 16,996 20,148 22,964 21,432 22,595 19,443 21,179 22,824 21,799 21,532 22,412 21,411 21,539 20,553 18,776 20,296 20,444	500 887 1,107 1,463 1,948 2,346 2,855 3,455 3,455 3,453 3,477 3,454 3,473 3,477 3,454 3,473 3,473 3,473 3,473 3,473 3,474 3,313 3,313	1,852 2,495 2,739 3,487 4,716 5,636 6,518 7,404 7,796 8,208 7,565 7,635 7,557 7,414 7,518 7,365 6,538 6,934 7,007	16,241 19,485 20,842 25,098 29,628 29,413 32,039 28,816 31,810 33,971 34,664 32,720 32,662 32,555 32,446 32,401 31,362 28,4848 30,543 30,543 30,833
2012 January	125 129 120 121 116 119 122 116 121 124 127 <b>1,465</b>	805 751 743 709 709 693 708 717 705 739 750 786 <b>8,816</b>	714 670 658 630 672 661 658 694 637 733 709 706 <b>8,140</b>	1,646 1,546 1,533 1,464 1,503 1,470 1,485 1,533 1,456 1,590 1,580 1,619 <b>18,425</b>	3 2 2 2 2 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2	(s) (s) (s) (s) (s) (s) (s) (s) (s) (s)	(S) (S) (S) (S) (S) (S) (S) (S) (S) (S)	(S) (S) (S) (S) (S) (S) (S) (S) (S) (S)	196 184 188 180 188 183 186 189 181 186 185 192 <b>2,238</b>	199 186 191 182 191 185 187 191 183 188 194 <b>2,265</b>	1,845 1,732 1,724 1,646 1,694 1,655 1,672 1,724 1,640 1,778 1,768 1,813 20,690	270 267 277 276 289 285 298 301 280 283 269 267 <b>3,363</b>	547 525 550 546 611 591 624 600 535 556 555 569 <b>6,811</b>	2,662 2,525 2,525 2,525 2,469 2,594 2,531 2,625 2,455 2,618 2,588 2,649 <b>30,865</b>
2013 January	133 128 132 127 128 126 128 128 134 132 133 <b>1,553</b>	814 750 793 734 732 697 722 731 708 754 792 852 <b>9,080</b>	774 669 677 672 691 688 721 704 745 782 793 773 <b>8,689</b>	1,720 1,548 1,599 1,532 1,551 1,508 1,567 1,561 1,580 1,669 1,714 1,756 19,305	3 3 3 3 3 3 2 2 2 2 2 2 3 3	(s) (s) (s) (s) (s) (s) (s) (s) (s) (s)	(s) (s) (s) (s) (s) (s) (s) (s) (s) (s)	(s) (s) (s) (s) (s) (s) (s) (s) (s) (s)	184 166 182 175 182 183 193 186 178 186 2,198	188 169 186 177 186 186 197 189 189 189 199 <b>2,235</b>	1,908 1,717 1,785 1,709 1,737 1,694 1,764 1,760 R 1,858 1,903 1,955 21,540	267 254 266 265 280 278 286 274 275 265 3,258	545 498 545 530 592 588 593 590 530 545 558 558 6,664	2,719 2,469 2,596 2,504 2,609 2,560 2,642 2,630 2,554 2,677 2,726 2,765 31,461
2014 January	133 127 <b>260</b> <b>260</b> <b>250</b>	867 791 <b>1,658</b> <b>1,564</b> <b>1,556</b>	806 692 <b>1,498</b> <b>1,443</b> <b>1,384</b>	1,805 1,616 <b>3,421</b> <b>3,268</b> <b>3,191</b>	3 2 6 6 5	(s) (s) 1 1	(s) (s) (s) (s)	(s) (s) (s) (s) (s)	186 168 <b>354</b> <b>350</b> <b>380</b>	190 171 <b>361</b> <b>357</b> <b>385</b>	R 1,994 1,787 <b>3,782</b> <b>3,625</b> <b>3,577</b>	265 250 <b>514</b> <b>521</b> <b>537</b>	551 479 <b>1,030</b> <b>1,043</b> <b>1,073</b>	R 2,810 2,516 <b>5,326</b> <b>5,188</b> <b>5,187</b>

section

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

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

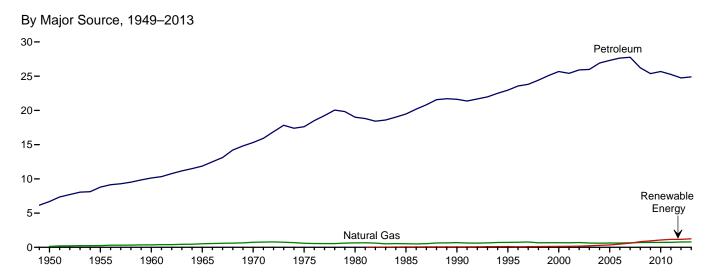
Notes: • Data are estimates, except for coal totals; hydroelectric power in 1949–1978 and 1989 forward; solar/PV; wind; and electricity retail sales. • The industrial sector includes industrial combined-heat-and-power (CHP) and industrial electricity-only plants. See Note 2, "Classification of Power Plants Into Energy-Use Sectors," at end of Section 7. • See Note 2, "Energy Consumption Data and Surveys," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia Columbia.

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

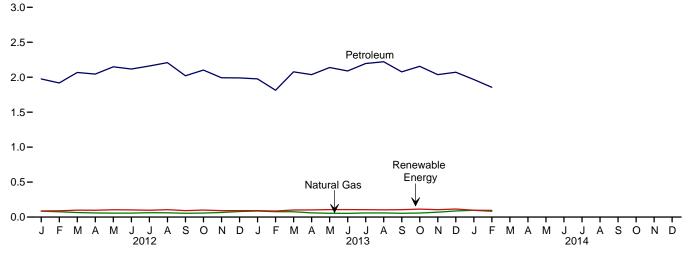
Sources: Tables 1.4a, 1.4b, 2.6, 3.8b, 4.3, 6.2, 7.6, 10.2b, A4, A5, and A6.

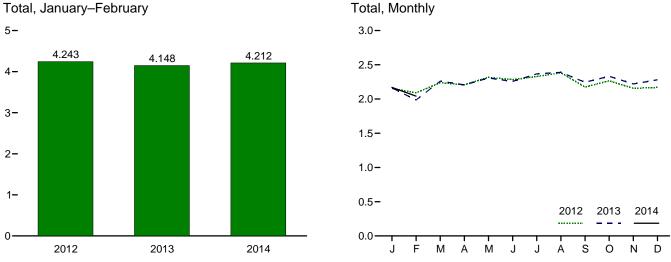
a See "Primary Energy Consumption" in Glossary.
b See Table 10.2b for notes on series components and estimation.
c Natural gas only; excludes the estimated portion of supplemental gaseous fuels. See Note 3, "Supplemental Gaseous Fuels," at end of Section 4.
d Does not include biofuels that have been blended with petroleum—biofuels are included in "Biomass."
e Includes coal coke net imports, which are not separately displayed. See Tables 1.4a and 1.4b.
f Conventional hydroelectric power.
g Electricity retail sales to ultimate customers reported by electric utilities and, beginning in 1996, other energy service providers.
h Total losses are calculated as the primary energy consumed by the electric power sector minus the energy content of electricity retail sales. Total losses are allocated to the end-use sectors in proportion to each sector's share of total electricity retail sales. See Note 1, "Electrical System Energy Losses," at end of

Figure 2.5 Transportation Sector Energy Consumption (Quadrillion Btu)



By Major Source, Monthly





Web Page: http://www.eia.gov/totalenergy/data/monthly/#consumption. Source: Table 2.5.

**Table 2.5 Transportation Sector Energy Consumption** 

(Trillion Btu)

L			Primary Cor	nsumptiona					
		Fossi	l Fuels		Renewable Energy <sup>b</sup>	Total	Electricity Retail	Electrical System Energy	
	Coal	Natural Gas <sup>c</sup>	Petroleum <sup>d</sup>	Total	Biomass	Primary	Salese	Losses <sup>f</sup>	Total
1950 Total	1.564	130	6.690	8.383	NA	8.383	23	86	8.492
955 Total	421	254	8,799	9,474	NA	9,474	20	56	9,550
960 Total	75	359	10,125	10,560	NA	10,560	10	26	10,596
965 Total	16	517	11,866	12,399	NA	12,399	10	24	12,432
970 Total	7	745	15,310	16.062	NA NA	16.062	11	26	16.098
975 Total	1	595	17,615	18,210	NA NA	18,210	10	24	18,245
980 Total	( <sup>9</sup> )	650	19.009	19.659	NA NA	19.659	11	27	19.697
985 Total	(9)	519	19,472	19,992	50	20,041	14	32	20,088
990 Total	(9)	680	21,626	22,306	60	22,366	16	37	22,420
	(9)	724				,	17	38	
995 Total	(9)	672	22,955	23,679	112 135	23,791	17	36 42	23,846
000 Total			25,682	26,354		26,489			26,548
001 Total	(g)	658	25,412	26,070	142	26,213	20	43	26,275
002 Total	(g)	699	25,913	26,612	170	26,781	19	42	26,842
003 Total	( <sup>g</sup> )	627	25,987	26,615	230	26,845	23	51	26,919
004 Total	(g)	602	26,925	27,527	290	27,817	25	54	27,895
005 Total	( <sup>g</sup> )	624	27,309	27,933	339	28,272	26	56	28,353
006 Total	(g)	625	27,651	28,276	475	28,751	25	54	28,830
2007 Total	(g)	663	27,763	28,427	602	29,029	28	60	29,116
008 Total	( <sup>g</sup> )	692	26,230	26,922	825	27,747	26	56	27,829
009 Total	(g)	715	25,375	26,090	935	27,025	27	56	27,108
010 Total	(g)	719	25,683	26,402	1,075	27,477	26	55	27,558
011 Total	(g)	734	25,264	25,997	1,158	27,155	26	54	27,236
012 January	(g)	84	1,975	2,059	87	2,147	2	4	2,153
February	(9)	76	1,918	1,994	89	2,083	2	4	2,090
March	(g)	64	2,068	2,132	99	2,231	2	4	2,237
April	(9)	59	2,046	2,105	98	2,203	2	4	2,209
May	(g)	57	2,150	2,206	104	2,311	2	4	2,317
June	(g)	57	2,118	2,174	102	2,276	2	4	2,283
July	(g)	63	2,161	2,224	98	2,322	2	5	2,329
August	(g)	61	2,209	2,270	106	2,375	2	4	2,382
September	(g)	55	2,022	2,076	92	2,168	2	4	2,174
October	(g)	57	2,102	2,159	100	2,259	2	4	2,265
November	(9)	66	1.993	2.059	92	2,150	2	4	2,156
December	(9)	80	1,991	2,071	92	2,162	2	4	2,169
Total	(g)	777	24,751	25,528	1,159	26,688	25	51	26,763
013 January	(g)	87	1,977	2,063	92	2,156	2	5	2,163
February	(9)	77	1,814	1.892	87	1,978	2	4	1,985
March	(g)	76	2,077	2,154	101	2,254	2	4	2,261
April	(9)	60	2,038	2,098	102	2,200	2	4	2,206
May	(9)	54	2,139	2,193	107	2,300	2	4	2,306
June	(9)	53	2,090	2,144	106	2,250	2	5	2,257
July	(9)	59	2,197	2,256	105	2,361	2	5	2,368
August	(9)	59 59	2,197	2,280	103	2,383	2	4	2,300
	(9)	59 54	2,221	2,260	103	2,363	2	4	2,390
September	(9)	54 57	2,077	2,131	114	2,236	2	4	2,244
October	(9)	70					2	4	
November	(9)	70 88	2,038	2,108	106 114	2,213	2	4 5	2,219
December Total	(g)	7 <b>95</b>	2,071 <b>24,895</b>	2,159 <b>25,690</b>	1,244	2,274 <b>26,934</b>	26	53	2,281 <b>27,012</b>
014 January	(9)	97	1.967	2.064	98	2.162	2	5	2.170
February	(9)	83	1,857	1,940	95	2,102	2	5	2,170
2-Month Total	(g)	1 <b>80</b>	3,824	4, <b>004</b>	95 <b>194</b>	2,035 <b>4,198</b>	2 5	1 <b>0</b>	2,042 <b>4,212</b>
013 2-Month Total	(g)	164	3,791	3,955	179	4,134	4	9	4,148

beginning in 1996, other energy service providers.

<sup>†</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 1, "Electrical System Energy Losses," at end of

section.

<sup>9</sup> Beginning in 1978, the small amounts of coal consumed for transportation are reported as industrial sector consumption.

NA=Not available.

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

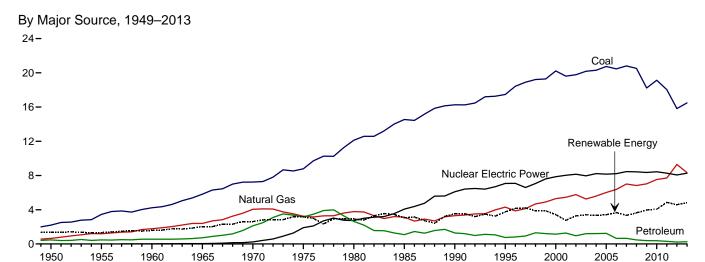
Columbia.

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

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

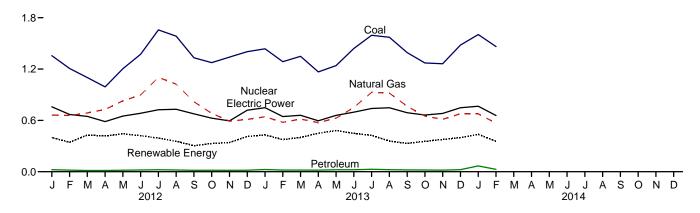
a See "Primary Energy Consumption" in Glossary.
b See Table 10.2b for notes on series components.
c Natural gas only; does not include supplemental gaseous fuels—see Note 3,
"Supplemental Gaseous Fuels," at end of Section 4. Data are for natural gas consumed in the operation of pipelines (primarily in compressors) and small amounts consumed as vehicle fuel—see Table 4.3.
d Does not include biofuels that have been blended with petroleum—biofuels are included in "Biomass."
e Electricity retail sales to ultimate customers reported by electric utilities and, beginning in 1996, other energy service providers.

Figure 2.6 Electric Power Sector Energy Consumption (Quadrillion Btu)

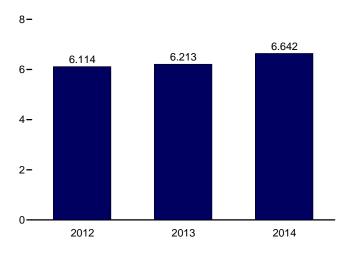


By Major Source, Monthly

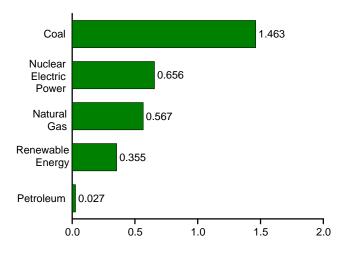
2.4-



Total, January-February



By Major Source, February 2014



Web Page:  $\label{lem:http://www.eia.gov/totalenergy/data/monthly/\#consumption.} \\ \text{Source: Table 2.6.}$ 

Table 2.6 **Electric Power Sector Energy Consumption** 

(Trillion Btu)

		Fossil	Fuels					Renewabl	e Energy <sup>b</sup>			Elec-	
	Coal	Natural Gas <sup>c</sup>	Petro- leum	Total	Nuclear Electric Power	Hydro- electric Power <sup>d</sup>	Geo- thermal	Solar/ PV	Wind	Bio- mass	Total	tricity Net Imports <sup>e</sup>	Total Primary
1950 Total	2,199	651	472	3,322	0	1,346	NA	NA	NA	5	1,351	6	4,679
1955 Total	3,458	1,194	471	5,123	0	1,322	NA .	NA	NA	3	1,325	14	6,461
1960 Total	4,228	1,785	553	6,565	6	1,569	(s)	NA	NA	2	1,571	15	8,158
1965 Total	5,821	2,395	722	8,938	43 239	2,026	6	NA NA	NA NA	3 4	2,031 2.609	(s) 7	11,012
1970 Total	7,227 8,786	4,054 3,240	2,117 3,166	13,399 15,191	1,900	2,600 3,122	34	NA NA	NA NA	2	2,609 3,158	21	16,253 20,270
1980 Total	12,123	3,240 3,778	2,634	18,534	2,739	2,867	53	NA NA	NA NA	4	2.925	71	24,269
1985 Total	14,542	3,135	1,090	18,767	4,076	2,937	97	(s)	(s)	14	3,049	140	26,032
1990 Total <sup>f</sup>	16,261	3,309	1,289	20,859	6,104	3,014	161	4	29	317	3,524	8	30,495
1995 Total	17,466	4,302	755	22,523	7,075	3,149	138	5	33	422	3,747	134	33,479
2000 Total	20,220	5,293	1,144	26,658	7,862	2,768	144	5	57	453	3,427	115	38,062
2001 Total	19,614	5,458	1,277	26,348	8,029	2,209	142	6	70	337	2,763	75	37,215
2002 Total	19,783	5,767	961	26,511	8,145	2,650	147	6	105	380	3,288	72	38,016
2003 Total	20,185	5,246	1,205	26,636	7,960	2,749	146	5	113	397	3,411	22	38,028
2004 Total	20,305	5,595	1,212	27,112	8,223	2,655	148	6	142	388	3,339	39	38,712
2005 Total	20,737	6,015	1,235	27,986	8,161	2,670	147	6	178	406	3,406	85	39,638
2006 Total	20,462	6,375	648	27,485	8,215	2,839	145	5	264	412	3,665	63	39,428
2007 Total	20,808	7,005	657	28,470	8,459	2,430	145	6	341	423	3,345	107	40,380
2008 Total	20,513	6,829	468	27,810	8,426	2,494	146 146	9 9	546	435	3,630	112	39,978
2009 Total 2010 Total	18,225 19,133	7,022 7,528	390 378	25,638 27,039	8,355 8,434	2,650 2,521	146	12	721 923	441 459	3,967 4,064	116 89	38,076 39,627
2011 Total	18,035	7,712	303	26,050	8,269	3,085	149	17	1,167	433	4,855	127	39,301
2011 10tal	10,000	7,712	303	20,030	0,203	3,003	143	• • •	1,107	407	4,000	121	33,301
2012 January	1,356	662	24	2,041	758	217	12	1	130	39	398	11	3,209
February	1,207	657	18	1,882	669	191	11	1	105	36	344	9	2,905
March	1,100	687	15	1,802	647	244	12	2	133	37	429	10	2,888
April	991	728	14	1,733	585	248	12	3	121	33	417	13	2,749
May	1,204	828	17	2,048	651	271	12	4	119	36	442	15	3,156
June	1,373	897	20	2,290	683	252	12	5	114	38	421	14	3,408
July	1,658	1,102	23	2,783	724	251	13	5	84	40	392	19	3,919
August	1,585	1,023	20	2,627	729	218	12	4	81	40	355	19	3,731
September October	1,331 1,275	818 682	17 17	2,166 1,973	676 626	166 155	12 13	4 4	84 120	38 38	304 330	14 12	3,160 2,941
November	1,340	591	17	1,948	594	176	13	3	111	38	341	13	2,896
December	1,403	611	18	2,031	719	217	13	3	138	40	412	11	3,173
Total	15,821	9,287	219	25,327	8,062	2,606	148	40	1,339	453	4,586	161	38,136
0040 1	4 407	0.40	00	0.405	740	000			400	00	400	4.4	0.007
2013 January	1,437	643	26	2,105	748	236	14	3	139	38	430	14	3,297
February	1,286 1,349	578 615	19 19	1,883 1,982	644 660	192 194	12 14	4 6	132 149	34 39	375 401	13 14	2,915 3,057
March April	1,349	574	18	1,759	595	233	13	7	164	33	450	12	2,815
May	1,167	626	23	1,759	659	233 269	13	8	155	38	481	16	3,044
June	1,440	751	22	2,213	696	257	13	9	131	39	449	17	3,375
July	1,594	927	28	2,549	739	256	13	8	106	41	425	18	3,731
August	1,571	918	24	2,513	748	204	13	9	91	41	359	19	3,639
September	1,393	766	21	2,180	690	159	13	9	111	39	331	15	3,215
October	1,271	650	20	1,941	662	163	14	9	130	39	355	13	2,972
November	1,262	612	18	1,892	681	167	12	7	151	40	377	15	2,964
December	1,480	677	24	2,181	747	200	14	7	134	44	398	13	3,340
Total	16,489	8,337	262	25,088	8,268	2,529	157	85	1,595	465	4,831	179	38,365
2014 January	1,603	677	68	2,348	766	202	13	7	171	43	437	13	3,564
February	1,463	567	27	2,057	656	163	12	8	133	39	355	9	3,078
2-Month Total	3,066	1,244	95	4,405	1,422	366	25	15	304	82	793	22	6,642
2013 2-Month Total 2012 2-Month Total	2,723 2,563	1,221 1,319	45 42	3,988 3,924	1,393 1,428	428 408	26 23	7 2	271 235	73 74	805 743	27 20	6,213 6,114

output. • The electric power sector comprises electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public. • See Note 2, "Energy Consumption Data and Surveys," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia.

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

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

 <sup>&</sup>lt;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> Note imports explain protein gives expects.

Net imports equal imports minus exports.
 Through 1988, data are for electric utilities only. Beginning in 1989, data are for electric utilities and independent power producers.

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

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

# **Energy Consumption by Sector**

Note 1. Electrical System Energy Losses. Electrical system energy losses are calculated as the difference between total primary consumption by the electric power sector (see Table 2.6) and the total energy content of electricity retail sales (see Tables 7.6 and A6). Most of these losses occur at steam-electric power plants (conventional and nuclear) in the conversion of heat energy into mechanical energy to turn electric generators. The loss is a thermodynamically necessary feature of the steamelectric cycle. Part of the energy input-to-output losses is a result of imputing fossil energy equivalent inputs for hydroelectric, geothermal, solar thermal, photovoltaic, and wind energy sources. In addition to conversion losses, other losses include power plant use of electricity, transmission and distribution of electricity from power plants to end-use consumers (also called "line losses"), and unaccounted-for electricity. Total losses are allocated to the end-use sectors in proportion to each sector's share of total electricity sales. Overall, about two thirds of total energy input is lost in conversion. Currently, of electricity generated, approximately 5 percent is lost in plant use and 7 percent is lost in transmission and distribution.

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

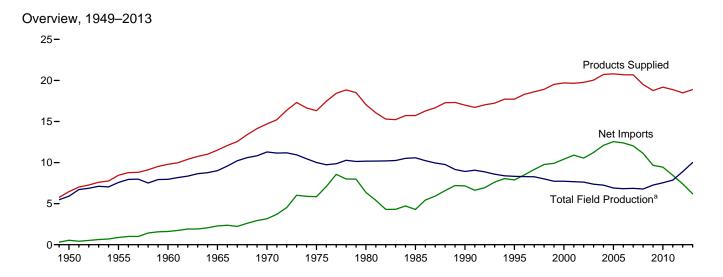
(MER) are developed from a group of energy-related surveys, typically called "supply surveys," conducted by the U.S. Energy Information Administration (EIA). Supply surveys are directed to suppliers and marketers of specific energy sources. They measure the quantities of specific energy sources produced,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

Users of EIA's energy consumption statistics should be aware of a second group of energy-related surveys, typically called "consumption surveys." Consumption surveys gather information on the types of energy consumed by end users of energy, along with the characteristics of those end users that can be associated with energy use. For example, the "Manufacturing Energy Consumption Survey" belongs to the consumption survey group because it collects information directly from end users (the manufacturing establishments). There are important differences between the supply and consumption surveys that need to be taken into account in any analysis that uses both data sources. For information on those differences, see "Energy Consumption by End-Use Sector, A Comparison of Measures by Consumption and Supply Surveys," DOE/EIA-0533, U.S. Energy Information Administration, Washington, DC, April 6, 1990.

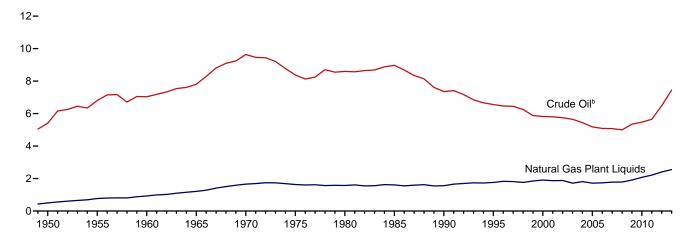
<b>3.</b>	D	041	nol		
<b>J.</b>		CU		IEU	JĮĮ

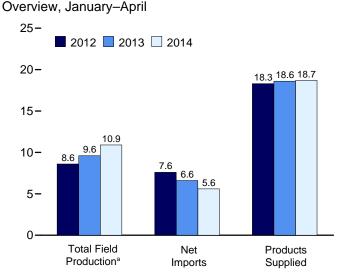
.

Figure 3.1 Petroleum Overview (Million Barrels per Day)



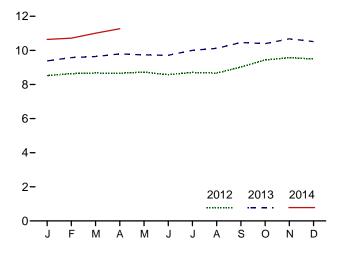
Crude Oil and Natural Gas Plant Liquids Field Production, 1949-2013





 $<sup>^{\</sup>rm a}$  Crude oil, including lease condensate, and natural gas plant liquids field production.

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



Web Page:  $\label{lem:http://www.eia.gov/totalenergy/data/monthly/\#petroleum.} Source: Table 3.1.$ 

36

<sup>&</sup>lt;sup>b</sup> Includes lease condensate.

Table 3.1 **Petroleum Overview** 

		Fie	ld Produc	tiona					Trade				
	48 States <sup>d</sup>	Crude Oil <sup>t</sup> Alaska	o,c Total	NGPL <sup>e</sup>	Total <sup>c</sup>	Renew- able Fuels and Oxy- genates <sup>f</sup>	Process- ing Gain <sup>g</sup>	Im- ports <sup>h</sup>	Ex- ports	Net Imports <sup>i</sup>	Stock Change	Adjust- ments <sup>c,k</sup>	Petroleum Products Supplied
1950 Average 1955 Average 1960 Average 1960 Average 1970 Average 1970 Average 1970 Average 1980 Average 1980 Average 2000 Average 2001 Average 2001 Average 2003 Average 2004 Average 2005 Average 2006 Average 2007 Average 2008 Average 2009 Average 2009 Average 2009 Average 2009 Average 2007 Average 2008 Average 2009 Average	5,407 6,807 7,034 7,774 9,408 8,183 6,980 7,146 5,582 5,582 4,851 4,859 4,675 4,533 4,317 4,347 4,347 4,347 4,347 4,355 4,317 4,708	0 0 2 30 229 191 1,617 1,825 1,773 1,484 970 963 985 974 984 741 722 683 645 600 561	5,407 6,807 7,035 7,804 9,637 8,375 8,971 7,355 6,560 5,822 5,801 5,744 5,441 5,441 5,088 5,077 5,000 5,353 5,652	499 771 929 1,210 1,660 1,633 1,573 1,609 1,559 1,762 1,911 1,880 1,719 1,800 1,717 1,739 1,784 1,910 2,216	5,906 7,578 7,965 9,014 11,297 10,170 10,581 8,914 8,322 7,733 7,670 7,624 7,369 7,250 6,898 6,827 6,860 6,783 7,545 7,869	NA NA NA NA NA NA NA NA NA NA NA NA NA N	2 34 146 220 359 460 557 683 774 948 903 957 974 1,051 994 993 994 993 970 1,068	850 1,248 1,815 2,468 3,419 6,056 6,909 5,067 8,018 8,835 11,459 11,871 11,530 12,264 13,714 13,707 13,468 12,915 11,691 11,793 11,436	305 368 202 259 209 544 781 857 949 1,040 971 1,048 1,165 1,317 1,433 1,802 2,024 2,024 2,986	545 880 1,613 2,281 3,161 5,846 6,365 4,286 7,161 7,886 10,419 10,900 10,546 11,238 12,097 12,390 12,036 11,114 9,667 9,441 8,450	-56 (s) -83 -83 -8 103 32 140 -103 107 -246 -69 325 -105 56 209 145 60 -148 195 109 49 -121	-51 -37 -8 -10 -16 41 200 338 496 532 501 509 542 510 536 640 803 225 269 350	6,458 8,455 9,797 11,512 14,697 16,322 17,056 15,726 16,988 17,725 19,701 19,649 19,761 20,034 20,731 20,687 20,687 20,688 18,771 19,180 18,882
Part January February March April May June July August September October November December Average	R 5,656 R 5,722 R 5,733 R 5,783 5,749 R 5,892 R 6,060 R 6,388 R 6,485 R 6,520	593 582 567 552 546 493 415 404 502 547 553 555 <b>526</b>	R 6,136 R 6,239 R 6,290 R 6,286 R 6,329 6,242 R 6,378 R 6,296 R 6,562 R 7,038 R 7,075 R 6,484	2,384 2,401 2,385 2,379 2,393 2,338 2,327 2,371 2,462 2,507 2,536 2,415 <b>2,408</b>	R 8,520 R 8,639 R 8,674 R 8,665 8,722 8,580 R 8,705 R 8,667 R 9,024 R 9,441 R 9,574 R 9,490 R 8,892	1,022 1,013 991 1,002 1,017 1,003 928 954 920 901 913 904	1,053 1,064 1,074 1,027 1,089 1,100 1,065 1,001 1,006 1,032 1,152 1,059	10,910 10,490 10,605 10,611 11,117 11,424 10,794 10,880 10,475 10,047 10,181 9,644 <b>10,598</b>	2,870 2,994 3,116 3,272 3,207 3,216 3,237 3,081 3,164 3,255 3,404 3,636 <b>3,205</b>	8,041 7,496 7,489 7,339 7,910 8,208 7,556 7,798 7,312 6,793 6,777 6,008 <b>7,393</b>	726 -179 519 33 366 478 91 -401 631 -304 11 -85	R 394 R 252 R 453 R 212 217 444 R 352 R 290 R 466 R 261 R 242 R 481	18,304 18,643 18,164 18,211 18,589 18,857 18,515 19,156 18,092 18,705 18,528 18,120 18,490
Pebruary February March April May June July August September October November December Average	RE 6,582 RE 6,630 RE 6,802 RE 6,747 RE 6,731 RE 7,033 RE 7,244 RE 7,191 RE 7,412 RE 7,356	E 549 E 541 E 533 E 523 E 515 E 486 E 493 E 428 E 511 E 521 E 536 E 546 E 515	RE 7,024 RE 7,123 RE 7,163 RE 7,324 E 7,263 RE 7,217 RE 7,455 RE 7,461 RE 7,755 RE 7,712 RE 7,948 RE 7,902 RE 7,9447	2,657 2,707 2,680 2,734 2,615	E 9,384 RE 9,576 RE 9,638 RE 9,793 E 9,738 RE 9,715 RE 10,005 RE 10,119 RE 10,462 RE 10,392 RE 10,682 RE 10,517 RE 10,003	894 908 949 973 1,011 1,033 1,020 1,004 998 1,047 1,082 1,102	1,119 998 1,035 1,088 1,058 1,096 1,139 1,129 1,157 1,093 1,133 1,175 1,102	10,042 9,235 9,456 10,076 10,052 9,790 10,243 10,197 9,979 9,592 9,307 9,502 <b>9,794</b>	2,882 3,243 3,111 3,208 3,467 3,545 3,892 3,700 3,631 3,998 3,973 4,444 <b>3,594</b>	7,160 5,992 6,345 6,868 6,585 6,245 6,351 6,498 6,349 5,594 5,334 5,057 <b>6,200</b>	185 -777 79 444 353 7 -6 98 370 -617 -691 -1,023 -128	273 R 407 R 588 R 276 512 R 642 R 526 R 439 R 520 R 529 R 491 R 206 R 451	18,646 18,659 18,476 18,553 18,551 18,724 19,046 19,091 19,116 19,273 19,413 19,081 18,887
2014 January	E 7,518 E 7,670 E 7,793	E 542 E 515 E 530 E 536 E <b>531</b>	RE 8,005 RE 8,033 E 8,200 E 8,329 E <b>8,143</b>	2,639 R 2,684 E 2,810 E 2,941 E <b>2,769</b>	RE 10,644 RE 10,717 E 11,010 E 11,270 E <b>10,912</b>	1,002 R 1,019 E 945 E 971 E <b>984</b>	1,118 R 1,080 E 1,088 E 1,134 E <b>1,106</b>	9,264 R 9,151 E 9,074 E 9,516 E <b>9,252</b>	4,021 R 3,611 E 3,741 E 3,378 E <b>3,692</b>	5,243 R 5,540 E 5,333 E 6,138 E <b>5,559</b>	-561 R 14 E 172 E 1,336 E <b>237</b>	R 352 R 651 E 312 E 268 E <b>390</b>	18,921 R 18,994 E 18,516 E 18,445 E <b>18,714</b>
2013 4-Month Average 2012 4-Month Average		E 536 574	E 7,158 6,237	2,439 2,387	E 9,597 8,624	931 1,007	1,061 1,055	9,711 10,657	3,107 3,062	6,604 7,595	-2 284	386 330	18,582 18,326

<sup>&</sup>lt;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>&</sup>quot;Adjustments."

b Includes lease condensate.
c Once a month, data for crude oil production, total field production, and adjustments are revised 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.
d United States excluding Alaska and Hawaii.
e Natural gas plant liquids.
f Renewable fuels and oxygenate plant net production.
g Refinery and blender net production minus refinery and blender net inputs.
See Table 3.2.
h Includes Strategic Petroleum Reserve imports. See Table 3.3b.

i Net imports equal imports minus exports.

j A negative value indicates a decrease in stocks and a positive value indicates an increase. The current month stock change estimate is based on the change from the previous month's estimate, rather than the stocks values shown in Table 3.4. Includes crude oil stocks in the Strategic Petroleum Reserve, but excludes distillate fuel oil stocks in the Northeast Home Heating Oil Reserve. See Table 3.4. k An adjustment for crude oil, hydrogen, oxygenates, renewable fuels, other hydrocarbons, motor gasoline blending components, finished motor gasoline, and distillate fuel oil. See ElA's Petroleum Supply Monthly, Appendix B, "PSM Explanatory Notes," for further information.

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

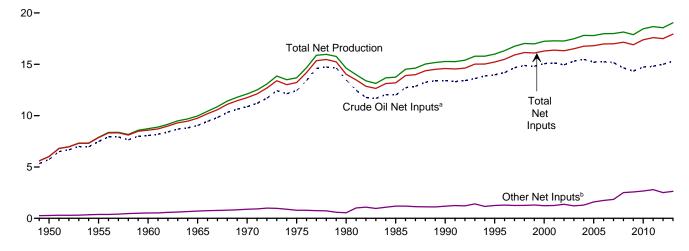
REREVISED. EXECUTION TO STATE THE AVAILABLE. (N)=Less than 500 barries per day.

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

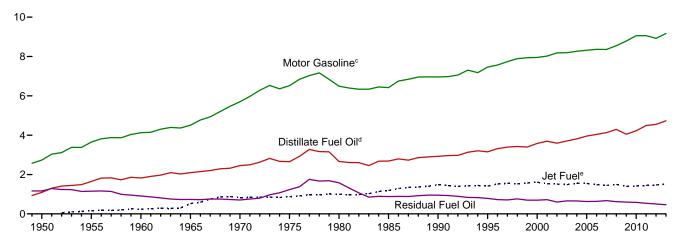
Web Page: See http://www.eia.gov/totalenergy/data/monthly/#petroleum (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973. Sources: See end of section.

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

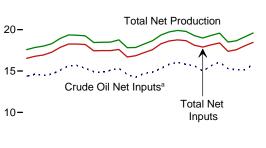
Net Inputs and Net Production, 1949-2013

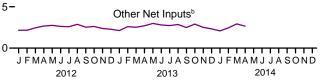


Net Production, Selected Products, 1949–2013



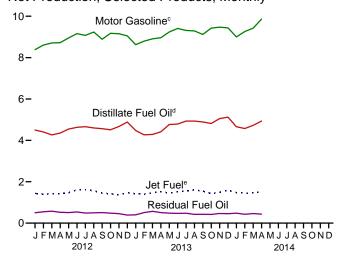






<sup>&</sup>lt;sup>a</sup> Includes lease condensate.

# Net Production, Selected Products, Monthly



sel) 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. Source: Table 3.2.

25-

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

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

<sup>&</sup>lt;sup>d</sup> Beginning in 2009, includes renewable diesel fuel (including biodie-

Table 3.2 Refinery and Blender Net Inputs and Net Production

	Pofin	on, and Bla	ander Net I	nnute?			Dofinory	and Plan	dor Not Bro	ductionb		
	Keiine	ery and Ble	nder Net I	nputs					der Net Pro	luction	1	
	Crude		Other		Distillate	Jet	LPG	<b>3</b> c	Motor	Residual	Other	
	Oild	NGPLe	Liquids	Total	Fuel Oil <sup>9</sup>	Fuelh	Propane <sup>i</sup>	Total	Gasoline	Fuel Oil	Products <sup>k</sup>	Total
1950 Average	5,739	259	19	6,018	1,093	( <sup>h</sup> )	NA	80	2,735	1,165	947	6.019
1955 Average	7,480	345	32	7,857	1,651	155	NA	119	3,648	1,152	1,166	7,891
1960 Average	8,067	455	61	8,583	1,823	241	NA	212	4,126	908	1,420	8,729
1965 Average	9,043 10,870	618 763	88 121	9,750 11,754	2,096 2,454	523 827	NA NA	293 345	4,507 5,699	736 706	1,814 2,082	9,970 12,113
1970 Average 1975 Average	12,442	710	72	13,225	2,454	871	234	311	6,518	1,235	2,097	13,685
1980 Average	13,481	462	81	14,025	2,661	999	269	330	6,492	1,580	2,559	14,622
1985 Average	12,002	509	681	13,192	2,686	1,189	295	391	6,419	882	2,183	13,750
1990 Average	13,409	467	713	14,589	2,925	1,488	404 503	499 654	6,959	950	2,452	15,272
1995 Average 2000 Average	13,973 15,067	471 380	775 849	15,220 16,295	3,155 3,580	1,416 1,606	583	705	7,459 7,951	788 696	2,522 2,705	15,994 17,243
2001 Average	15,128	429	825	16,382	3,695	1,530	556	667	8.022	721	2.651	17,245
2002 Average	14,947	429	941	16,316	3,592	1,514	572	671	8,183	601	2,712	17,273
2003 Average	15,304	419	791	16,513	3,707	1,488	570	658	8,194	660	2,780	17,487
2004 Average 2005 Average	15,475 15,220	422 441	866 1,149	16,762 16,811	3,814 3,954	1,547 1,546	584 540	645 573	8,265 8,318	655 628	2,887 2,782	17,814 17,800
2006 Average	15,242	501	1,238	16,981	4,040	1,481	543	627	8,364	635	2,827	17,975
2007 Average	15,156	505	1,337	16,999	4,133	1,448	562	655	8,358	673	2,728	17,994
2008 Average	14,648	485	2,019	17,153	4,294	1,493	519	630	8,548	620	2,561	18,146
2009 Average	14,336 14,724	485 442	2,082 2,219	16,904 17,385	4,048 4,223	1,396 1,418	537 560	623 659	8,786 9,059	598 585	2,431 2,509	17,882 18,452
2010 Average 2011 Average	14,724	490	2,300	17,596	4,492	1,419	552	619	9,058	537	2,518	18,673
_	,		_,000	,000		.,						
<b>2012</b> January	14,374	512	1,644	16,531	4,500	1,437	531	421	8,385	500	2,341	17,584
February	14,615	532	1,627 2,008	16,774 16,929	4,408	1,402 1,412	542 545	503 688	8,606 8,705	548 577	2,372	17,838 18,004
March April	14,476 14,609	445 451	2,008	17,269	4,263 4,352	1,412	558	835	8,720	525	2,359 2,430	18,295
May	15,097	432	2,317	17,846	4,547	1,469	568	858	8,950	509	2,603	18,936
June	15,637	442	2,182	18,261	4,632	1,610	585	841	9,157	538	2,583	19,360
July	15,665	439	2,149	18,253	4,660	1,613	569	848	9,073	486	2,640	19,319
August September	15,325 14,910	436 523	2,436 2,003	18,197 17,436	4,600 4,566	1,560 1,450	543 522	779 553	9,237 8,888	495 508	2,571 2,474	19,242 18,438
October	14,843	622	1,997	17,462	4,510	1,419	541	470	9,176	481	2.414	18,468
November	15,085	627	1,747	17,460	4,669	1,374	550	364	9,156	458	2,471	18,492
December	15,330	646	1,627	17,604	4,884	1,466	579	390	9,051	388	2,578	18,756
Average	14,999	509	1,997	17,505	4,550	1,471	553	630	8,926	501	2,487	18,564
2013 January	14,569	541	1,580	16,690	4,476	1,421	543	417	8,624	399	2,472	17,810
February	14,246	501	2,094	16,841	4,267	1,403	535	485	8,794	508	2,382	17,839
March	14,703	488	2,035	17,226	4,285	1,463	557	652	8,908	571 509	2,380	18,260
April May	14,865 15,300	427 379	2,275 2,606	17,567 18,286	4,415 4,767	1,526 1,451	561 574	820 869	8,963 9,241	483	2,422 2,532	18,655 19,343
June	15,833	426	2,376	18,634	4,788	1,523	566	848	9,409	469	2,693	19,731
July	16,040	427	2,295	18,761	4,933	1,562	575	865	9,314	477	2,750	19,900
August	15,803	444 560	2,413	18,660	4,931	1,606	583 575	837	9,291	423 428	2,701	19,789
September October	15,628 14,988	566	1,926 2,336	18,113 17,890	4,889 4,815	1,544 1,426	542	634 418	9,120 9,425	420 420	2,655 2,478	19,270 18,983
November	15,651	595	1,918	18,165	5,054	1,492	558	302	9,474	466	2,510	19,298
December	16,073	589	1,732	18,393	5,122	1,586	600	376	9,436	454	2,594	19,569
Average	15,315	495	2,133	17,942	4,732	1,501	564	628	9,169	467	2,549	19,045
2014 January	15,300	524	1,555	17,379	4,656	1,477	584	414	8,999	480	2,471	18,497
February	R 15,122	<sup>R</sup> 531	R 1,919	R 17,572	R 4,572	R 1.450	R 573	<sup>R</sup> 518	R 9,259	R 428	R 2.426	R 18,652
March	E 15,122	F 475	RE 2,446	RF 18,042	E 4,727	E 1,464	RE 615	F 659	E 9,425	E 462	RE 2,393	RE 19,130
April 4-Month Average	E 15,809 E <b>15,340</b>	F 435 E <b>491</b>	E 2,216 E <b>2,035</b>	F 18,460 E <b>17,865</b>	E 4,934 E <b>4,724</b>	E 1,505 E <b>1,474</b>	E 678 E <b>613</b>	F 823 E <b>604</b>	E 9,860 E <b>9,385</b>	E 436 E <b>452</b>	E 2,036 E <b>2,331</b>	E 19,594 E <b>18,971</b>
_					·							
2013 4-Month Average	14,602	490	1,991	17,083	4,363	1,454	549	595	8,822	497	2,415	18,144
2012 4-Month Average	14,516	485	1,873	16,874	4,380	1,421	544	611	8,603	537	2,375	17,929

See "Refinery and Blender Net Inputs" in Glossary. See "Refinery and Blender Net Production" in Glossary.

b See "Refinery and Blender Net Production" in Glossary.
c Liquefied petroleum gases.
d Includes lease condensate.
e Natural gas plant liquids (liquefied petroleum gases and pentanes plus).
f Unfinished oils (net), other hydrocarbons, and hydrogen. Beginning in 1981, also includes aviation and motor gasoline blending components (net). Beginning in 1993, also includes oxygenates (net), including fuel ethanol. Beginning in 2009, also includes renewable diesel fuel (including biodiesel).
g Beginning in 2009, includes renewable diesel fuel (including biodiesel).
h Beginning in 1965, includes kerosene-type jet fuel. (Through 1964, kerosene-type jet fuel is included with kerosene in "Other Products.")
p 1952–2004, also includes naphtha-type jet fuel. (Through 1951, naphtha-type jet fuel is included in the products from which it was blended—gasoline, kerosene, and distillate fuel oil. Beginning in 2005, naphtha-type jet fuel is included in "Other Products.")

Products.") Includes propylene.

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

gasoline.

k Asphalt and road oil, kerosene, lubricants, petrochemical feedstocks, petroleum coke, still gas (refinery gas), waxes, and miscellaneous products. Through 1964, also includes kerosene-type jet fuel. Beginning in 1964, also includes finished aviation gasoline and special naphthas. Beginning in 2005, also includes naphtha-type jet fuel.

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

Notes:

Notes:

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

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

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

Sources:

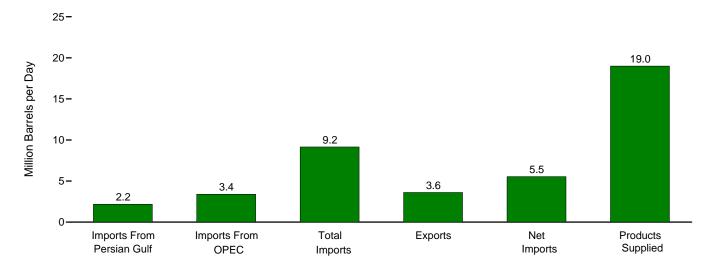
1949–1975: Bureau of Mines, Mineral Industry Surveys, Petroleum Statement, Annual, annual reports.

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

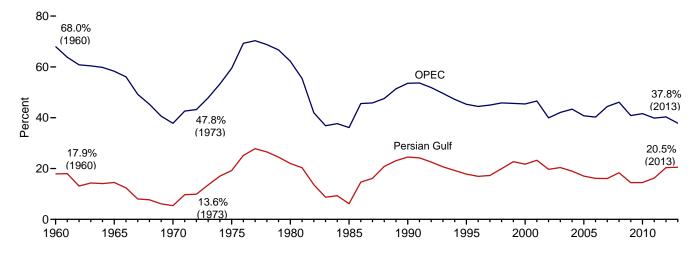
2013 and 2014: EIA, Petroleum Supply Monthly, monthly reports; and, for the current two months, Weekly Petroleum Status Report data system, Short-Term Integrated Forecasting System, and Monthly Energy Review data system calculations.

Figure 3.3a Petroleum Trade: Overview

Overview, February 2014



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



Net Imports as Share of Products Supplied, 1949–2013



Note: OPEC=Organization of the Petroleum Exporting Countries. Web Page: http://www.eia.gov/totalenergy/data/monthly/#petroleum.

Source: Table 3.3a.

Table 3.3a Petroleum Trade: Overview

									are of Supplied			nare of mports
	Imports From Persian Gulf <sup>a</sup>	Imports From OPEC <sup>b</sup>	Imports  Thousand Ba	Exports	Net Imports	Products Supplied	Imports From Persian Gulf <sup>a</sup>	Imports From OPEC <sup>b</sup>	<b>Imports</b>	Net Imports	Imports From Persian Gulf <sup>a</sup>	Imports From OPEC <sup>b</sup>
1950 Average 1955 Average 1960 Average 1965 Average 1970 Average 1975 Average 1975 Average 1980 Average 1980 Average 1990 Average 2000 Average 2001 Average 2003 Average 2004 Average 2004 Average 2005 Average 2006 Average 2007 Average 2007 Average 2007 Average 2008 Average 2009 Average 2007 Average 2008 Average 2009 Average 2010 Average	NA NA 326 359 184 1,165 1,519 311 1,966 1,573 2,488 2,761 2,493 2,334 2,211 2,163 2,370 1,689 1,711 1,861	NA NA 1,233 1,439 1,294 3,601 4,300 4,296 4,002 5,203 5,528 4,605 5,162 5,701 5,587 5,587 5,954 4,776 4,906 4,555	850 1,248 1,815 2,468 3,419 6,056 6,909 5,067 8,018 8,835 11,459 11,530 12,264 13,714 13,714 13,707 13,468 12,915 11,793 11,793 11,436	305 368 202 187 259 209 544 781 857 949 1,040 971 1,044 1,165 1,317 1,433 1,802 2,024 2,353 2,986	545 548 1,613 2,281 3,161 5,846 6,365 4,286 7,161 7,886 10,419 10,900 10,546 11,238 12,097 12,390 12,036 11,114 9,667 9,441 8,450	6,458 8,455 9,797 11,512 14,697 16,322 17,056 15,726 16,988 17,725 19,701 19,649 19,761 20,034 20,731 20,680 19,498 18,771 19,180 18,882	NA NA 3.3 3.1 1.3 7.1 8.9 2.0 11.6 8.9 12.6 14.1 11.5 12.5 12.0 11.2 10.7 10.5 12.2 9.0 9.9	NA NA 12.6 12.5 22.1 25.3 22.6 26.4 28.1 23.3 25.8 27.5 26.9 26.7 28.9 30.5 25.4 25.6 24.1	13.2 14.8 18.5 21.4 23.3 37.1 40.5 32.2 47.2 49.8 58.2 60.4 65.9 66.3 65.9 66.2 62.3 61.5 60.6	8.4 10.4 16.5 19.8 21.5 35.8 37.3 42.2 44.5 52.9 55.5 44.5 56.1 58.4 60.3 59.9 55.5 57.0 51.5 49.2 44.8	NA NA 17.9 14.5 19.2 22.0 6.1 24.5 17.8 21.7 23.3 17.0 16.1 18.4 14.5 16.3	NA NA 68.0 58.3 37.8 59.5 62.2 36.1 53.6 45.4 46.6 9.9 42.1 43.4 40.7 40.7 40.2 44.4 46.1 40.9 39.8
2012 January February March April May June July August September October November December Average	2,158 1,948 2,209 2,236 2,628 2,395 2,154 2,071 2,071 2,142 2,100 1,751 <b>2,156</b>	4,159 3,989 4,301 4,402 4,730 4,655 4,387 4,387 4,272 4,187 4,228 3,556 <b>4,271</b>	10,910 10,490 10,605 10,611 11,117 11,424 10,794 10,880 10,475 10,047 10,181 9,644 10,598	2,870 2,994 3,116 3,272 3,207 3,216 3,237 3,081 3,164 3,255 3,404 3,636 3,205	8,041 7,496 7,489 7,339 7,910 8,208 7,556 7,798 7,312 6,793 6,777 6,008 <b>7,393</b>	18,304 18,643 18,164 18,211 18,589 18,857 18,515 19,156 18,092 18,705 18,528 18,120 18,490	11.8 10.4 12.2 12.3 14.1 12.7 11.6 10.8 11.4 11.5 11.3 9.7	22.7 21.4 23.7 24.2 25.4 24.7 23.7 22.9 23.6 22.4 22.8 19.6 <b>23.1</b>	59.6 56.3 58.4 58.3 59.8 60.6 58.3 56.8 57.9 53.7 55.0 53.2 <b>57.3</b>	43.9 40.2 41.2 40.3 42.6 43.5 40.7 40.4 36.3 36.6 33.2 <b>40.0</b>	19.8 18.6 20.8 21.1 23.6 21.0 20.0 19.0 19.8 21.3 20.6 18.2 20.3	38.1 38.0 40.6 41.5 42.5 40.7 40.6 40.3 40.8 41.7 41.5 36.9 <b>40.3</b>
2013 January February March April May June July August September October November December Average	1,798 1,831 2,087 1,804 2,135 1,894 1,927 2,160 2,146 1,933 2,138 2,225 <b>2,008</b>	3,850 3,094 3,713 3,780 4,045 3,825 3,793 3,900 3,921 3,411 3,529 3,570 <b>3,707</b>	10,042 9,235 9,456 10,076 10,052 9,790 10,243 10,197 9,979 9,592 9,307 9,502 9,794	2,882 3,243 3,111 3,208 3,467 3,545 3,892 3,700 3,631 3,998 3,973 4,444 <b>3,594</b>	7,160 5,992 6,345 6,868 6,585 6,245 6,351 6,498 6,349 5,594 5,057 <b>6,200</b>	18,646 18,659 18,476 18,553 18,551 18,724 19,046 19,091 19,116 19,273 19,413 19,081 18,887	9.6 9.8 11.3 9.7 11.5 10.1 10.1 11.3 11.2 10.0 11.7 10.6	20.6 16.6 20.1 20.4 21.8 20.4 19.9 20.4 20.5 17.7 18.2 18.7	53.9 49.5 51.2 54.3 54.2 52.3 53.8 53.4 52.2 49.8 47.9 49.8 <b>51.9</b>	38.4 32.1 34.3 37.0 35.5 33.4 33.3 34.0 33.2 29.0 27.5 26.5 <b>32.8</b>	17.9 19.8 22.1 17.9 21.2 19.3 18.8 21.2 21.5 20.2 23.0 23.4 20.5	38.3 33.5 39.3 37.5 40.2 39.1 37.0 38.2 39.3 35.6 37.9 37.6 37.8
2014 January	2,187 R 2,172 NA NA NA	3,314 R 3,398 NA NA NA	9,264 R 9,151 E 9,074 E 9,516 E <b>9,252</b>	4,021 R 3,611 E 3,741 E 3,378 E <b>3,692</b>	5,243 R 5,540 E 5,333 E 6,138 E <b>5,559</b>	18,921 R 18,994 E 18,516 E 18,445 E <b>18,714</b>	11.6 R 11.4 NA NA NA	17.5 R 17.9 NA NA <b>NA</b>	49.0 R 48.2 E 49.0 E 51.6 E <b>49.4</b>	27.7 R 29.2 E 28.8 E 33.3 E <b>29.7</b>	23.6 R 23.7 NA NA NA	35.8 R 37.1 NA NA <b>NA</b>
2013 4-Month Average 2012 4-Month Average	1,882 2,140	3,621 4,215	9,711 10,657	3,107 3,062	6,604 7,595	18,582 18,326	10.1 11.7	19.5 23.0	52.3 58.2	35.5 41.4	19.4 20.1	37.3 39.6

receipts from U.S. territories.

receipts from U.S. territories.

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

Sources: • 1949–1975: Bureau of Mines, Mineral Industry Surveys, Petroleum Statement, Annual, annual reports. • 1976–1980: U.S. Energy Information Administration (EIA), Energy Data Reports, Petroleum Statement, Annual, annual reports. • 1981–2012: EIA, Petroleum Supply Annual, annual reports, and unpublished revisions. • 2013 and 2014: EIA, Petroleum Supply Monthly, monthly reports; and, for the current two months, Weekly Petroleum Status Report data system and Monthly Energy Review data system calculations.

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

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

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

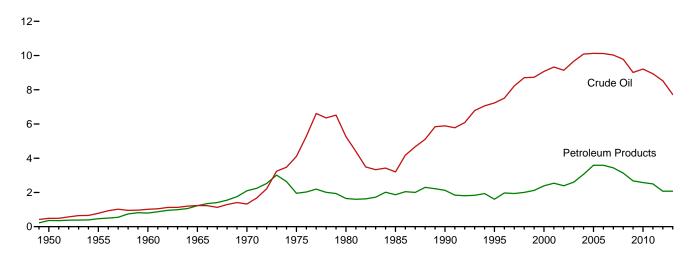
Notes:

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

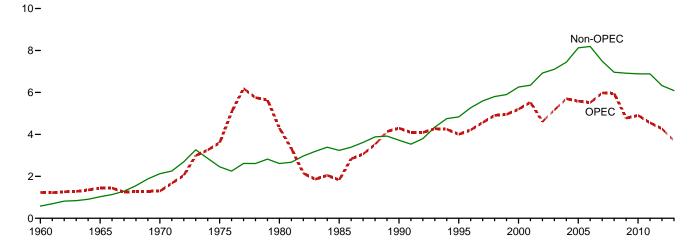
Beginning in October 1977, data include Strategic Petroleum Reserve imports. See Table 3.3b. Annual averages may not equal average of months due to independent rounding. ■ U.S. geographic coverage is the 50 states and the District of Columbia. U.S. exports include shipments to U.S. territories, and imports include

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

Overview, 1949-2013



OPEC and Non-OPEC, 1960-2013

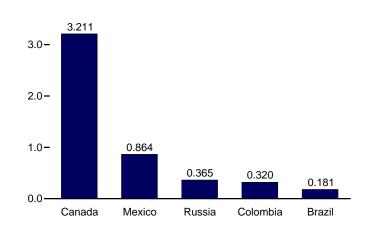


4.0-

From Selected OPEC Countries, February 2014 2.0-

1.464 1.5-1.0-0.807 0.5-0.348 0.290 0.207 0.0-Saudi Vene-Kuwait Iraq Ecuador Arabia zuela

From Selected Non-OPEC Countries, February 2014



Note: OPEC=Organization of the Petroleum Exporting Countries. Web Page: http://www.eia.gov/totalenergy/data/monthly/#petroleum. Sources: Tables 3.3b–3.3d.

Table 3.3b Petroleum Trade: Imports and Exports by Type

					lmį	ports						Exports	<b>i</b>
	Crue	de Oila			LPG	b					Ī		
	SPRC	Total	Distillate Fuel Oil	Jet Fuel <sup>d</sup>	Propanee	Total	Motor Gasoline <sup>f</sup>	Residual Fuel Oil	<b>Other</b> <sup>g</sup>	Total	Crude Oila	Petroleum Products	Total
1950 Average		487	.7	(d)	0	0	(s) 13	329	27	850	95	210	305
1955 Average		782 1.015	12 35	(°)	0 NA	0 4	13 27	417 637	24 62	1,248 1,815	32 8	336 193	368 202
1960 Average1965 Average	==	1,015	36	81	NA NA	21	27 28	946	119	2.468	3	184	202 187
1970 Average		1,324	147	144	26	52	67	1,528	157	3,419	14	245	259
1975 Average		4,105	155	133	60	112	184	1,223	144	6,056	6	204	209
1980 Average	44	5,263	142	80	69	216	140	939	130	6,909	287	258	544
1985 Average 1990 Average	118 27	3,201 5,894	200 278	39 108	67 115	187 188	381 342	510 504	550 705	5,067 8.018	204 109	577 748	781 857
1995 Average		7.230	193	106	102	146	265	187	703	8,835	95	855	949
2000 Average	8	9,071	295	162	161	215	427	352	938	11,459	50	990	1,040
2001 Average	11	9,328	344	148	145	206	454	295	1,095	11,871	20	951	971
2002 Average	16	9,140	267	107	145	183	498	249	1,085	11,530	9	975	984
2003 Average 2004 Average	- 77	9,665 10,088	333 325	109 127	168 209	225 263	518 496	327 426	1,087 1,419	12,264 13,145	12 27	1,014 1,021	1,027 1.048
2005 Average	52	10,000	329	190	233	328	603	530	1,609	13,714	32	1,133	1,046
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 2010 Average	_56	9,013 9,213	225 228	81 98	147 121	182 153	223 134	331 366	1,635 1,600	11,691 11,793	44 42	1,980 2,311	2,024 2,353
2011 Average	_	8,935	179	69	110	135	105	328	1,686	11,436	47	2,939	2,986
•		,							,	,		•	,
<b>2012</b> January	-	8,527	157	6	146	169	80	330	1,641	10,910	78	2,791	2,870
February	-	8,562 8,771	142 137	41 5	125 109	155 137	46 79	228 273	1,315 1,204	10,490 10,605	73 71	2,921 3,045	2,994 3,116
March April	_	8.636	98	45	115	143	33	252	1,404	10,603	41	3,043	3,110
May	_	8,991	113	49	106	133	43	265	1,524	11,117	83	3,124	3,207
June	_	9,193	87	42	102	130	37	325	1,609	11,424	46	3,170	3,216
July	-	8,712	117	48	115	134	32	247	1,505	10,794	77	3,160	3,237
August	_	8,665 8.381	112 86	124 84	85 100	109 124	34 23	244 257	1,593 1.521	10,880 10.475	60 68	3,021 3.096	3,081 3,164
September October	_	8,108	88	106	91	116	26 26	236	1,368	10,475	67	3,090	3,104
November	_	8,183	188	46	138	158	32	236	1,339	10,181	73	3,331	3,404
December	-	7,604	190	59	161	182	64	178	1,367	9,644	71	3,565	3,636
Average	-	8,527	126	55	116	141	44	256	1,450	10,598	67	3,137	3,205
2013 January	_	7,953	213	46	184	207	40	238	1,345	10,042	73	2,809	2,882
February	-	7,270	174	61	166	186	19	196	1,331	9,235	124	3,119	3,243
March	-	7,460	146	18	141	164	56	300	1,312	9,456	101	3,010	3,111
April May	_	7,726 7,737	238 168	74 83	110 81	130 98	35 24	259 186	1,614 1,757	10,076 10,052	132 125	3,075 3,342	3,208 3,467
June	_	7,730	120	76	110	131	70	173	1,490	9,790	120	3,425	3,545
July	_	8,071	107	75	87	108	53	249	1,580	10,243	98	3,794	3,892
August	_	8,099	123	124	85	109	68	292	1,383	10,197	66	3,634	3,700
September	_	7,911 7,475	132 128	68 98	87 158	108 182	40 38	229 194	1,490 1,477	9,979 9,592	99	3,532	3,631 3,998
October November	_	7,475	145	96 74	169	189	50 51	181	1,477	9,307	202	3,885 3,771	3,996
December	_	7,759	164	61	146	166	33	168	1,150	9,502	190	4,255	4,444
Average	-	7,719	155	72	127	148	44	222	1,435	9,794	120	3,474	3,594
2014 January	_	7,584	283	42	187	206	42	122	985	9,264	245	3,776	4.021
February	_	R 7,200	R 336	R 94	R 221	R 244	R 11	R 221	R 1,046	R 9,151	R 240	R 3,371	R 3.611
March	_	E 7,271	E 259	_E 81	E 122	NA	<u> </u>	E 158	ΝA	E 9,074	E 65	E 3,676	E 3,741
April	_	E 7,603	E 179	E 122	E 70	NA	E 51	E 201	NA	E 9,516	E 69	E 3,309	E 3,378
4-Month Average	-	E 7,418	<sup>E</sup> 263	<sup>E</sup> 84	E 149	NA	<sup>E</sup> 34	E 174	NA	E 9,252	E 153	E 3,539	€ 3,692
2013 4-Month Average	_	7,609	193	49	150	172	38	249	1,400	9,711	107	3,000	3,107
2012 4-Month Average	-	8,625	134	24	124	151	60	272	1,392	10,657	66	2,996	3,062

Includes lease condensate.

includes finished aviation gasoline and special naphthas. Beginning in 1981, also includes motor gasoline blending components. Beginning in 2005, also includes naphtha-type jet fuel. R=Revised. E=Estimate. NA=Not available. - =Not applicable. - =No data

R=Revised. E=Estimate. NA=Not available. – =not applicable. – =no uala reported. (s)=Less than 500 barrels per day.

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

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

and CSV files) for all available annual data beginning in 1973. beginning in 1973.
Sources: • 1949–1975: Bureau of Mines, Mineral Industry Surveys, Petroleum Statement, Annual, annual reports. • 1976–1980: U.S. Energy Information Administration (EIA), Energy Data Reports, Petroleum Statement, Annual, annual reports. • 1981–2012: EIA, Petroleum Supply Annual, annual reports, and unpublished revisions. • 2013 and 2014: EIA, Petroleum Supply Monthly, monthly reports; and, for the current two months, Weekly Petroleum Status Report data system and Monthly Energy Review data system calculations.

a Includes lease condensate.
b Liquefied petroleum gases.
c "SPR" is the Strategic Petroleum Reserve, which began in October 1977.
Through 2003, includes crude oil imports by SPR only; beginning in 2004, includes crude oil imports by SPR, and crude oil imports into SPR by others.
d Beginning in 1965, includes kerosene-type jet fuel. (Through 1964, kerosene-type jet fuel is included with kerosene in "Other.") For 1956–2004, also includes naphtha-type jet fuel. (Through 1955, naphtha-type jet fuel is included in "Motor Gasoline." Beginning in 2005, naphtha-type jet fuel is included in "Other.")
Includes propylene.
Finished motor gasoline. Through 1955, also includes naphtha-type jet fuel. Through 1963, also includes aviation gasoline and special naphthas. Through 1980, also includes aviation gasoline blending components.
Asphalt and road oil, aviation gasoline blending components, kerosene, lubricants, pentanes plus, petrochemical feedstocks, petroleum coke, unfinished oils, waxes, other hydrocarbons and oxygenates, and miscellaneous products. Through 1964, also includes kerosene-type jet fuel. Beginning in 1964, also

Table 3.3c Petroleum Trade: Imports From OPEC Countries

	Algeria <sup>a</sup>	Angola <sup>b</sup>	Ecuadorc	Iraq	Kuwait <sup>d</sup>	Libya <sup>e</sup>	Nigeria <sup>f</sup>	Saudi Arabia <sup>d</sup>	Vene- zuela	Other <sup>g</sup>	Total OPEC
1960 Average	(a)	(b)	(°)	22	182	( <sup>e</sup> )	(f)	84	911	34	1,233
1965 Average	(a)	} <sub>b</sub> {	}c{	16	74	42	(t)	158	994	155	1,439
1970 Average	8	\b\	(c)	0	48	47	(f)	30	989	172	1,294
1975 Average	282	} <sub>b</sub> {	57	2	16	232	762	715	702	832	3.601
1980 Average	488	) <sub>b</sub> (	27	28	27	554	857	1.261	481	577	4.300
1985 Average	187	} <sub>b</sub> {	67	46	21	4	293	168	605	439	1,830
1990 Average	280	} <sub>b</sub> {	49	518	86	ŏ	800	1,339	1,025	199	4,296
1995 Average	234	\b\	(°)	0	218	ő	627	1,344	1,480	98	4,002
2000 Average	225	\b\	\c\	620	272	ŏ	896	1,572	1,546	72	5.203
	278	\b\	\c\	795	250	ŏ	885	1,662	1,553	105	5,528
2001 Average 2002 Average	264	) <sub>b</sub> (	} c {	459	228	ŏ	621	1,552	1,398	83	4,605
2002 Average	382	} b {	\c\	439 481	220	ŏ	867	1,774	1,376	61	5,162
	452	\b\	\c\	656	250	20	1,140	1,558	1,554	70	5,701
2004 Average	478	\b\	\c\	531	243	56	1,166	1,537	1,529	47	5,587
2005 Average	476 657	\b\	\c\	553	243 185	87	1,114	1,463	1,329	38	5,56 <i>1</i> 5,517
2006 Average	670	508	{ c }	484	181	117	1,114	1,485	1,419	39	5,980
2007 Average			221	404 627	210	103	988	1,529		26	5,954
2008 Average	548 493	513	185	450					1,189		
2009 Average	493 510	460 393	212	450 415	182 197	79 70	809 1,023	1,004 1.096	1,063 988	50 3	4,776 4,906
2010 Average	358	346	206	459	191	15	818	1,195	951	16	4,555
2011 Average	336	340	200	433	191	13	010	1,195	331	10	4,555
2012 January	269	385	100	374	319	5	494	1,423	751	41	4,159
February	256	230	244	271	252	29	353	1,420	934	_	3,989
March	325	175	174	386	454	60	374	1,369	984	-	4,301
April	259	253	201	395	235	68	483	1,597	904	7	4,402
May	300	249	199	675	407	65	428	1,540	861	7	4,730
June	236	378	248	668	250	93	515	1,456	794	17	4,655
July	213	285	176	375	304	110	372	1,466	1,080	7	4,387
August	303	153	180	550	301	126	504	1,220	1,048	_	4,385
September	175	237	218	461	310	67	468	1,291	1,038	6	4,272
October	186	183	122	593	287	59	543	1,258	951	4	4,187
November	199	157	151	489	276	30	516	1,316	1,076	18	4,228
December	179	116	155	462	254	16	248	1,034	1,092	_	3,556
Average	242	233	180	476	305	61	441	1,365	960	9	4,271
2013 January	194	223	240	419	389	20	479	979	898	10	3,850
February	17	198	174	529	255	20	255	1,032	601	14	3,094
March	74	98	218	426	367	74	403	1,284	763	8	3,713
April	160	167	322	455	238	76	405	1,109	847	_	3,780
May	168	328	178	321	361	125	395	1,440	720	10	4,045
June	88	271	202	228	217	119	366	1,431	887	16	3,825
July	112	242	198	299	309	150	240	1,318	924	_	3,793
August	105	376	349	397	420	67	167	1,332	678	10	3,900
September	136	226	255	287	299	35	286	1,557	837	_	3,921
October	66	207	251	226	335	13	183	1,362	759	10	3,411
November	144	125	235	182	397	_	93	1,557	796	_	3,529
December	110	136	155	332	332	(s)	99	1,520	847	39	3,570
Average	115	217	232	341	328	59	281	1,328	797	10	3,707
2014 January	68	94	191	249	474	_	89	1.462	687	1	3,314
February	79	114	207	290	348	_	59	1,464	807	31	3,398
2-Month Average	73	103	199	268	414	-	75	1,463	744	15	3,354
2013 2-Month Average	110	211	209	471	326	20	372	1,004	757	12	3,491

Notes: • See "Organization of the Petroleum Exporting Countries (OPEC)" in Glossary. Petroleum imports not classified as "OPEC" on this table are included on Glossay. Fedicional imports not described an instance of instance and instance of instance or 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. states and the District of Columbia.

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

and CSV files) for all available annual data beginning in 1960 and monthly data beginning in 1973.

Sources: • 1960–1972: Bureau of Mines, Minerals Yearbook, annual reports.

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

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

• 1981–2012: EIA, Petroleum Supply Annual, annual reports.

• 2013 and 2014: EIA, Petroleum Supply Monthly, monthly reports.

 <sup>&</sup>lt;sup>a</sup> Algeria joined OPEC in 1969. For 1960–1968, Algeria is included in "Total Non-OPEC" on Table 3.3d.
 <sup>b</sup> Angola joined OPEC in January 2007. For 1960–2006, Angola is included in "Total Non-OPEC" on Table 3.3d.
 <sup>c</sup> Ecuador was a member of OPEC from 1973–1992, and rejoined OPEC in November 2007. For 1960–1972 and 1993–2007, Ecuador is included in "Total Non-OPEC" on Table 3.3d.
 <sup>d</sup> Through 1970, includes half the imports from the Neutral Zone between Kuwait and Saudi Arabia. Beginning in 1971, imports from the Neutral Zone are reported as originating in either Kuwait or Saudi Arabia depending on the country reported to U.S. Customs.
 <sup>e</sup> Libya joined OPEC in 1962. For 1960 and 1961, Libya is included in "Total

Non-OPEC" on Table 3.3d.

<sup>9</sup> Includes these countries in the years indicated: Gabon (1975–1994), Indonesia (1962–2008), Iran (1960 forward), Qatar (1961 forward), and United Arab Emirates (1967 forward).

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

Table 3.3d Petroleum Trade: Imports From Non-OPEC Countries

			<u> </u>		Nether-			United	U.S. Virgin		Total
	Brazil	Canada	Colombia	Mexico	lands	Norway	Russiaa	Kingdom	Islands	Other	Non-OPEC
1960 Average	1	120	42	16	NA	NA	0	(s)	NA	NA	581
1965 Average	0	323	51	48	1	0	0	(s)	0	606	1,029
1970 Average	2	766	46	42	39	0	3	11	189	1,027	2,126
1975 Average	5	846	9	71	19	17	14	14	406	1,052	2,454
1980 Average	3	455	4	533	2	144	1	176	388	903	2,609
1985 Average	61	770	23	816	58	32	8	310	247	913	3,237
1990 Average	49	934	182	755	55	102	45	189	282	1,128	3,721
1995 Average	8	1,332	219	1,068	15	273	25	383	278	1,233	4,833
2000 Average	51	1,807	342	1,373	30	343	72	366	291	1,581	6,257
2001 Average	82	1,828	296	1,440	43	341	90	324	268	1,631	6,343
2002 Average	116	1,971	260	1,547	66	393	210	478	236	1,649	6,925
2003 Average	108	2,072	195	1,623	87	270	254	440	288	1,766	7,103
2004 Average	104	2,138	176	1,665	101	244	298	380	330	2,008	7,444
2005 Average	156	2,181	196	1,662	151	233	410	396	328	2,413	8,127
2006 Average	193	2,353	155	1,705	174	196	369	272	328	2,446	8,190
2007 Average	200	2,455	155	1,532	128	142	414	277	346	1,839	7,489
2008 Average	258	2,493	200	1,302	168	102	465	236	320	1,416	6,961
2009 Average	309	2,479	276	1,210	140	108	563	245	277	1,307	6,915
2010 Average	272	2,535	365	1,284	108	89	612	256	253	1,112	6,887
2011 Average	253	2,729	433	1,206	100	113	624	159	186	1,077	6,881
<b>2012</b> January	321	3,032	431	1,114	101	46	572	168	96	870	6,751
February	286	3,057	474	1,081	93	163	288	127	28	904	6,501
March	357	2,953	482	1,004	143	87	326	187	1	764	6,304
April	237	2,987	472	1,002	84	51	388	145	12	831	6,208
May	212	2,966	430	1,012	111	94	547	138	2	875	6,387
June	297	3,070	515	915	151	82	655	194	(s)	891	6,769
July	270	2,921	413	1,024	138	47	491	131	1	971	6,407
August	289	2,954	409	1,016	97	94	368	197	_	1,071	6,495
September	152	2,759	357	1,096	75	63	562	111	_	1,029	6,203
October	90	2,642	376	1,062	69	67	552	117	3	882	5,860
November	123	2,870	459	1,065	72	80	445	126	_	712	5,953
December	85	3,153	387	1,026	52	35	523	144	-	682	6,088
Average	226	2,946	433	1,035	99	75	477	149	12	874	6,327
<b>2013</b> January	106	3,433	351	1,068	120	48	327	116	-	624	6,193
February	79	3,416	366	978	120	10	454	95	_	623	6,141
March	123	3,004	479	677	121	69	454	111	_	705	5,743
April	96	3,163	465	973	80	40	579	131	_	769	6,296
May	193	2,842	389	885	88	26	552	170	-	862	6,007
June	182	2,864	356	846	74	80	513	198	-	853	5,965
July	179	3,008	588	930	69	68	453	192	_	965	6,450
August	226	3,076	375	912	85	36	572	163	-	852	6,297
September	242	3,072	314	839	58	56	458	149	_	871	6,059
October	. 88	3,213	384	878	83	114	555	160	_	706	6,181
November	127	3,104	302	1,014	85	52	326	124	_	645	5,779
December	103	3,324	293	1,030	90	52	265	146	_	629	5,932
Average	146	3,125	389	919	89	54	459	147	-	759	6,087
<b>2014</b> January	126	3,437	373	1,030	105	36	202	140	-	500	5,950
February	181	3,211	320	864	105	88	365	68	_	552	5,754
2-Month Average	152	3,330	348	951	105	61	279	106	-	525	5,857
2013 2-Month Average	93	3,425	358	1,025	120	30	387	106	-	623	6,168
2012 2-Month Average	304	3,044	452	1,098	98	103	435	148	63	887	6,630

<sup>&</sup>lt;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. NA=Not available. – =No data reported. (s)=Less than 500 barrels per day.

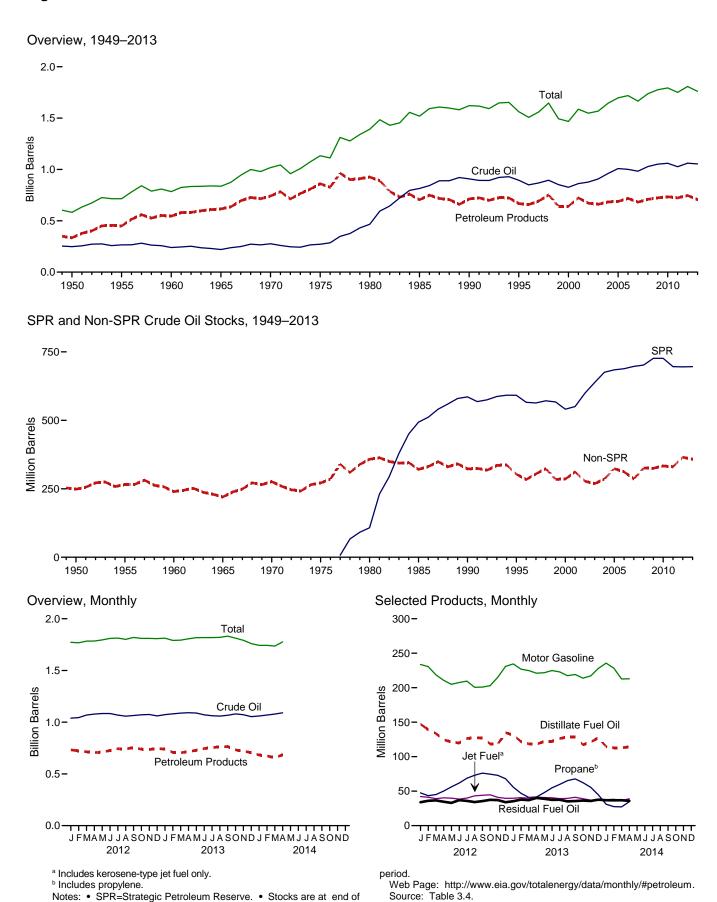
Notes: • See "Organization of the Petroleum Exporting Countries (OPEC)" in Glossary. Petroleum imports not classified as "OPEC" on Table 3.3c are included on this table. • The country of origin for petroleum products may not be the country of origin for the crude oil from which the products were produced. For example, refined products imported from West European refining areas may have been produced from Middle East crude oil. • Includes imports for the Strategic Petroleum Reserve, which began in October 1977. • Totals may not equal sum of components due to independent rounding. • U.S. geographic coverage is the 50

states and the District of Columbia.

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

beginning in 1973.
Sources: • 1960–1972: Bureau of Mines, Minerals Yearbook, annual reports.
• 1973–1975: Bureau of Mines, Mineral Industry Surveys, Petroleum Statement, Annual, annual reports. • 1976–1980: U.S. Energy Information Administration (EIA), Energy Data Reports, Petroleum Statement, Annual, annual reports.
• 1981–2012: EIA, Petroleum Supply Annual, annual reports. • 2013 and 2014: EIA, Petroleum Supply Monthly, monthly reports.

Figure 3.4 Petroleum Stocks



**Table 3.4 Petroleum Stocks** 

(Million Barrels)

		Crude Oila		<b>5</b>		LPC	<b>3</b> b				
	SPR <sup>c</sup>	Non-SPR <sup>d,e</sup>	Totale	Distillate Fuel Oil <sup>f</sup>	Jet Fuel <sup>g</sup>	Propane <sup>h</sup>	Total	Motor Gasoline <sup>i</sup>	Residual Fuel Oil	Other <sup>j</sup>	Total
1950 Year		248	248	72	( <sup>g</sup> )	NA	2	116	41	104	583
1955 Year		266	266	111		NA	7	165	39	123	715
1960 Year		240	240	138	7	NA	23	195	45	137	785
1965 Year		220	220	155	19	NA	30	175	56	181	836
1970 Year		276	276	195	28	NA	67	209	54	188	1,018
1975 Year		271	271	209	30	82	125	235	74	188	1,133
1980 Year	108	358	466	205	42	65	120	261	92	205	1,392
1985 Year	493	321	814	144	40	39	74	223	50	174	1,519
1990 Year	586	323	908	132	52	49	98	220	49	162	1,621
1995 Year	592	303	895	130	40	43	93	202	37	165	1,563
2000 Year	541	286	826	118	45	41	83	196	36	164	1,468
2001 Year	550	312	862	145	42	66	121	210	41	166	1,586
2002 Year	599	278	877	134	39	53	106	209	31	152	1,548
2003 Year	638	269	907	137	39	50	94	207	38	147	1,568
2004 Year	676	286	961	126	40	55	104	218	42	153	1,645
2005 Year	685	324	1,008	136	42	57	109	208	37	157	1,698
2006 Year	689	312	1,001	144	39	62	113	212	42	169	1,720
2007 Year	697	286	983	134	39	52 55	96	218	39	156	1,665
2008 Year	702	326	1,028	146	38		113	214	36	162	1,737
2009 Year	727 727	325 333	1,052 1,060	166	43 43	50 49	102 108	223 219	37 41	153	1,776 1,794
2010 Year 2011 Year	696	331	1,000	164 149	41	55	112	223	34	158 164	1,750
2012 January	696	343	1.039	147	42	48	101	234	34	175	1.773
February	696	348	1,044	139	41	43	96	231	36	180	1,767
March	696	373	1,069	134	39	45	103	219	37	184	1,783
April	696	383	1,079	125	40	50	116	211	35	179	1,784
May	696	388	1,084	121	40	56	133	205	33	180	1,796
June	696	388	1,084	120	38	62	147	208	37	177	1,810
July	696	373	1,069	126	40	69	160	210	36	173	1,813
August	696	362	1,058	127	43	73	170	201	34	166	1,801
September	695	370	1,065	127	44	76	175	201	36	172	1,819
October	695	376	1,071	119	45	75	168	203	37	167	1,810
November	695	379	1,074	118	41	73	158	215	37	167	1,810
December	695	365	1,061	135	40	68	141	231	34	167	1,808
2013 January	696	378	1,073	131	40	56	121	234	35	177	1,812
February	696	385	1,081	122	41	47	108	227	38	175	1,791
March	696	392	1,088	119	40	41	103	225	37	182	1,793
April	696	396	1,092	118	41	42	111	221	40	183	1,807
May	696	392	1,088	122	41	48	127	222	39	179	1,817
June	696	376	1,072	122	40	55	142	225	37	178	1,818
July	696	367	1,063	126	39	60	153	223	38	176	1,818
August	696	363	1,059	129	39	65	168	217	35	172	1,821
September	696	371	1,067	129	41	68	172	219	36	168	1,832
October	696	384	1,080	117	39	62	159	214	36	167	1,812
November	696	377	1,072	121	37	56	138	217	36	170	1,792
December	696	358	1,054	127	37	45	113	228	38	163	1,760
<b>2014</b> January	696 696	364 R 373	1,060 R 1,069	115 R 113	38 38	31 R 28	88 <sup>R</sup> 81	236 228	37	170 R 177	1,743 R 1.743
February	E 696	E 382	E 1,069	E 113	E 36	E 27	RF 82	E 213	37 E 37	RE 176	E 1,736
March	E 693	E 398	E 1,078	E 113	E 39	E 35	F 98	E 213	E 36	E 185	E 1,736
April	- 693	- 390	- 1,091	- 114	- 39	- 35	. 90	-213	- 30	- 100	- 1,770

Includes lease condensate.

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

1964, also includes finished aviation gasoline and special naphthas. Beginning in 2005, also includes naphtha-type jet fuel.

R=Revised. E=Estimate. F=Forecast. NA=Not available. ——=Not applicable. Notes: • Stocks are at end of period. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia.

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

and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.
Sources: • 1949–1975: Bureau of Mines, Mineral Industry Surveys, Petroleum Statement, Annual, annual reports. • 1976–1980: U.S. Energy Information Administration (EIA), Energy Data Reports, Petroleum Statement, Annual, annual reports. • 1981–2012: EIA, Petroleum Supply Annual, annual reports. • 2013 and 2014: EIA, Petroleum Supply Monthly, monthly reports; and, for the current two months, Weekly Petroleum Status Report data system, Short-Term Integrated Forecasting System, and Monthly Energy Review data system calculations.

b Liquefied petroleum gases.
 c "SPR" is the Strategic Petroleum Reserve, which began in October 1977.
 Crude oil stocks in the SPR include non-U.S. stocks held under foreign or

Crude oil stocks in the SPK include non-to. Stocks held under loreign or commercial storage agreements.

d All crude oil stocks other than those in "SPR."

e Beginning in 1981, includes stocks of Alaskan crude oil in transit.

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

oil.

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

1 Includes proovlene.

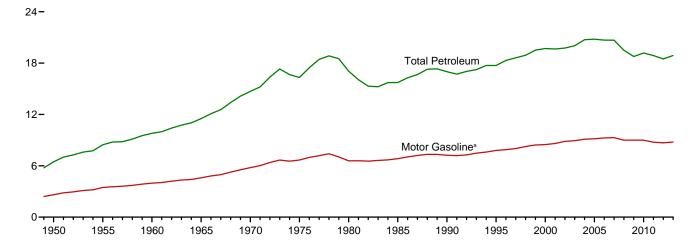
h Includes propylene.
i Includes finished motor gasoline and motor gasoline blending components; excludes oxygenates. Through 1963, also includes aviation gasoline and special naphthas.

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

Figure 3.5 Petroleum Products Supplied by Type

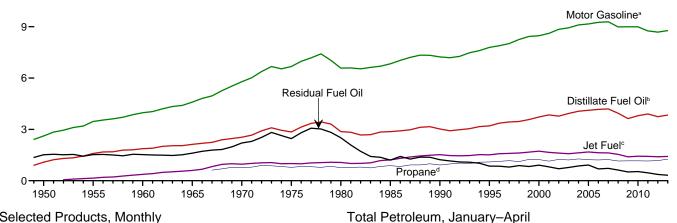
(Million Barrels per Day)

Total Petroleum and Motor Gasoline, 1949-2013



Selected Products, 1949-2013

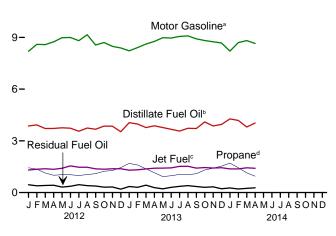
12-



Selected Products, Monthly



24-



<sup>18.714</sup> 18.326 18.582 18-12-6-2012 2014 2013

Note: SPR=Strategic Petroleum Reserve.

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

Source: Table 3.5.

12-

<sup>&</sup>lt;sup>a</sup> Beginning in 1993, includes fuel ethanol blended into motor gasoline.

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

<sup>&</sup>lt;sup>c</sup> Beginning in 2005, includes kerosene-type jet fuel only.

<sup>&</sup>lt;sup>d</sup> Includes propylene.

Table 3.5 Petroleum Products Supplied by Type

	Asphalt	Audatia	Dietillet-	lat	Vore	LPG	<b>3</b> a	1	Mater	Petro-	Doolder-1		
	and Road Oil	Aviation Gasoline	Distillate Fuel Oilb	Jet Fuel <sup>c</sup>	Kero- sene	Propaned	Total	Lubri- cants	Motor Gasoline <sup>e</sup>	leum Coke	Residual Fuel Oil	Other <sup>f</sup>	Tota
950 Average	180	108	1,082	(°)	323	NA	234	106	2,616	41	1,517	250	6.45
955 Average	254	192	1,592	<b>`1</b> 54	320	NA	404	116	3,463	67	1,526	366	8,45
960 Average	302	161	1,872	371	271	NA	621	117	3,969	149	1,529	435	9,79
965 Average	368	120	2,126	602	267	NA	841	129	4,593	202	1,608	657	11,51
970 Average	447	55	2,540	967	263	776	1.224	136	5.785	212	2,204	866	14,69
975 Average	419	39	2.851	1,001	159	783	1,333	137	6,675	247	2,462	1,001	16,32
980 Average	396	35	2.866	1,068	158	754	1,469	159	6,579	237	2,508	1,581	17,0
985 Average	425	27	2,868	1,218	114	883	1,599	145	6,831	264	1,202	1,032	15,72
990 Average	483	24	3,021	1,522	43	917	1,556	164	7,235	339	1,229	1,373	16,9
995 Average	486	21	3,207	1,514	54	1.096	1,899	156	7,789	365	852	1,381	17,7
	525	20	3,722	1,725	67	1,235	2,231	166	8,472	406	909	1,458	19,70
000 Average													
001 Average	519	19	3,847	1,655	72	1,142	2,044	153	8,610	437	811	1,481	19,64
2002 Average	512	18	3,776	1,614	43	1,248	2,163	151	8,848	463	700	1,474	19,76
003 Average	503	16	3,927	1,578	55	1,215	2,074	140	8,935	455	772	1,579	20,03
004 Average	537	17	4,058	1,630	64	1,276	2,132	141	9,105	524	865	1,657	20,73
005 Average	546	19	4,118	1,679	70	1,229	2,030	141	9,159	515	920	1,605	20,80
006 Average	521	18	4,169	1,633	54	1,215	2,052	137	9,253	522	689	1,640	20,68
007 Average	494	17	4,196	1,622	32	1,235	2,085	142	9,286	490	723	1,593	20,68
008 Average	417	15	3,945	1,539	14	1,154	1,954	131	8,989	464	622	1,408	19,49
009 Average	360	14	3,631	1,393	18	1,160	2,051	118	8,997	427	511	1,251	18,77
010 Average	362	15	3,800	1,432	20	1,160	2,173	131	8,993	376	535	1,343	19,18
011 Average	355	15	3,899	1,425	12	1,153	2,204	125	8,753	361	461	1,272	18,88
012 January	201	12	3,861	1,308	6	1,436	2,497	121	8,190	403	452	1,253	18,30
February	220	11	3,923	1,351	27	1,358	2,439	139	8,598	304	393	1,238	18,64
March	234	14	3,715	1,381	7	1,134	2,232	110	8,582	317	412	1,160	18,16
April	327	14	3,719	1,350	2	1,005	2,098	125	8,741	345	423	1,067	18,2
May	383	17	3,756	1,409	8	1,037	2,086	122	8,979	385	317	1,128	18,58
June	455	13	3,732	1,546	2	1,033	2,037	108	8,996	385	364	1,219	18,85
July	464	20	3,557	1.468	(s)	990	2.058	107	8,810	345	458	1,228	18,51
August	497	13	3,743	1,470	(s)	1,043	2,136	110	9,154	411	401	1,221	19,15
September	445	15	3,674	1,378	4	1,095	2,149	106	8,561	374	376	1,010	18,09
October	374	14	3,852	1,353	3	1,239	2,344	112	8,701	309	311	1,331	18,70
November	282	10	3,848	1,381	3	1,277	2,390	121	8,483	378	323	1,309	18,52
	202	9	3,529	1,381	2	1,452	2,548	92	8.389	366	196	1,309	18.12
Average	340	14	3,529 <b>3,741</b>	1,301	5	1,452 1,175	2,346 <b>2,251</b>	114	8,682	360	<b>369</b>	1,406 <b>1,215</b>	18,49
012 January	223	11	4,055	1,297	9	1,693	2 767	127	8,218	369	350	1 220	10.6/
013 January		11			7		2,767		8,412	281	304	1,220	18,64 18,65
February	212 237	8	3,975	1,320		1,597 1.376	2,753 2.498	125		306	304 431	1,259	18,65
March		12	3,772	1,369	15			126	8,616			1,095	
April	295	12	3,871	1,414	5	1,148	2,245	110	8,766	293	284	1,259	18,55
May	294	15	3,772	1,416	2	924	2,038	129	8,983	360	215	1,327	18,55
June	410	15	3,668	1,431	2	979	2,025	141	8,965	402	303	1,362	18,72
July	451	16	3,568	1,519	1	1,052	2,222	118	9,056	357	362	1,376	19,04
August	464	14	3,727	1,525	3	1,036	2,144	118	9,088	415	403	1,191	19,09
September	466	11	3,713	1,419	4	1,093	2,217	125	8,918	393	349	1,502	19,1
October	378	11	4,095	1,452	4	1,313	2,508	117	8,821	325	305	1,257	19,2
November	257	14	3,863	1,421	3	1,412	2,706	100	8,747	434	330	1,538	19,4
December	179	7	3,951	1,439	19	1,535	2,793	113	8,675	303	218	1,383	19,0
Average	323	12	3,835	1,419	6	1,261	2,408	121	8,774	354	321	1,313	18,8
114 January	177	10	4,272	1,371	18	1,703	2,916	108	8,206	432	269	1,143	18,9
February	R 205	R 7	R 4,182	R 1,373	R 5	R 1,442	R 2,600	R 117	R 8,699	R 299	R 207	R 1,301	R 18,9
March	RF 249	F 10	E 3.803	E 1.436	RF 16	E 1,142	RF 2,442	RF 105	E 8,815	F 318	E 243	RE 1,078	E 18,5
April	F 297	F 12	E 4,036	E 1,409	F 8	E 950	F 2,228	<sup>F</sup> 121	E 8,649	F 327	E 278	E 1,080	E 18,44
4-Month Average	E 232	E 10	E 4,071	E 1,398	E 12	E 1,309	E 2,548	E 112	E 8,589	E 345	E 250	E 1,147	E 18,71
013 4-Month Average	242	11	3,917	1,351	9	1,452	2,564	122	8,503	313	344	1,207	18,58
012 4-Month Average	245	13	3,803	1,348	10	1,233	2,316	124	8,525	343	421	1,179	18,32

Liquefied petroleum gases

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 1, "Petroleum Products Supplied and Petroleum Consumption," at end of section.

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

Geographic coverage is the 50 states and the District

of Columbia.

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

and CSV files) for all available annual data beginning in 1973.

beginning in 1973.

Sources: • 1949–1975: Bureau of Mines, Mineral Industry Surveys, Petroleum Statement, Annual, annual reports. • 1976–1980: U.S. Energy Information Administration (EIA), Energy Data Reports, Petroleum Statement, Annual, annual reports. • 1981–2012: EIA, Petroleum Supply Annual, annual reports, and unpublished revisions. • 2013 and 2014: EIA, Petroleum Supply Monthly, monthly reports; and, for the current two months, Weekly Petroleum Status Report data system, Short-Term Integrated Forecasting System, and Monthly Energy Review data system calculations. data system calculations

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

<sup>&</sup>lt;sup>c</sup> Beginning in 1957, includes kerosene-type jet fuel. For 1952–2004, also includes naphtha-type jet fuel. (Through 1951, naphtha-type jet fuel is included in the products from which it was blended—gasoline, kerosene, and distillate fuel oil.

the products from which it was blended—gasoline, kerosene, and distillate fuel oil. Beginning in 2005, naphtha-type jet fuel is included in "Other.").

d Includes propylene.

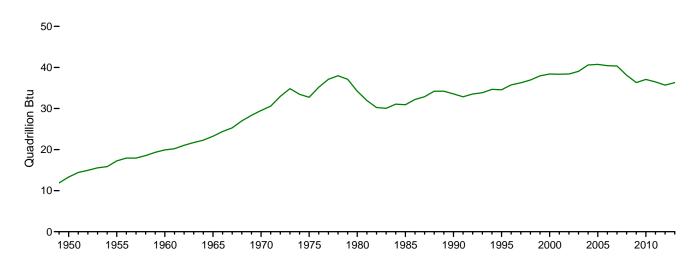
e Finished motor gasoline. Through 1963, also includes special naphthas. Beginning in 1993, also includes fuel ethanol blended into motor gasoline.

Pentanes plus, petrochemical feedstocks, still gas (refinery gas), waxes, and miscellaneous products. Beginning in 1964, also includes special naphthas. Beginning in 1981, also includes negative barrels per day of distillate and residual file oil reclassified as unfinished eils and other products (from both primary and beginning in 1981, also includes riegative barries 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.

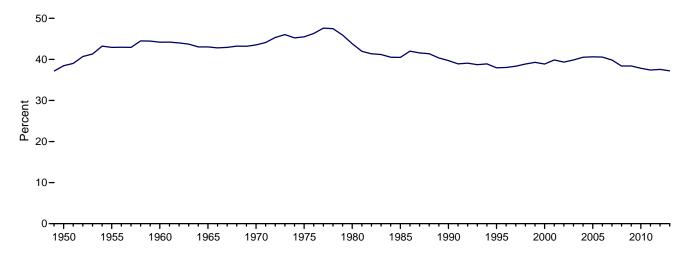
R=Revised. E=Estimate. F=Forecast. NA=Not available. (s)=Less than 500

Figure 3.6 Heat Content of Petroleum Products Supplied by Type

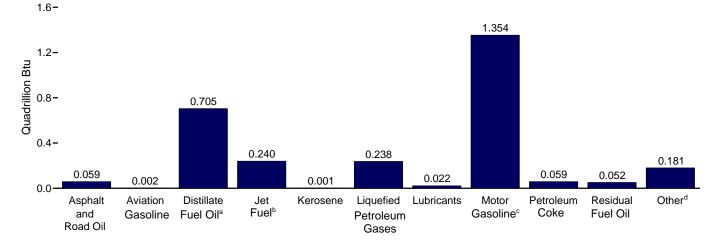
Total, 1949-2013



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



By Product, April 2014



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

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

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

<sup>&</sup>lt;sup>d</sup> All petroleum products not separately displayed. Web Page: http://www.eia.gov/totalenergy/data/monthly/#petroleum. Sources: Tables 1.1 and 3.6.

Table 3.6 Heat Content of Petroleum Products Supplied by Type

(Trillion Btu)

	Asphalt and	Aviation	Distillate	Jet	Kero-	LPG	a	Lubri-	Motor	Petro- leum	Residual		
	Road Oil	Gasoline	Fuel Oil <sup>b</sup>	Fuel <sup>c</sup>	sene	Propaned	Total	cants	Gasoline <sup>e</sup>	Coke	Fuel Oil	Otherf	Total
1950 Total	435	199	2,300	(°)	668	NA	343	236	5,015	90	3,482	546	13,315
1955 Total	615	354	3,385	301	662	NA	592	258	6,640	147	3,502	798	17,255
1960 Total	734	298	3,992	739	563	NA	912	259	7,631	328	3,517	947	19,919
1965 Total	890	222	4,519	1,215	553	NA	1,232	286	8,806	444	3,691	1,390	23,246
1970 Total	1,082	100	5,401	1,973	544	1,086	1,689	301	11,091	465	5,057	1,817	29,521
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
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	1,012 873	28 27	8,411 7,720	3,193 2,883	30 36	1,620 1,624	2,574 2,664	291 262	17,168 17,135	1,022 938	1,432 1,173	2,941 2,611	38,101
2009 Total 2010 Total	878	27	8,080	2,003	41	1,624	2,821	202	17,135	936 826	1,173	2,800	36,321 37,082
2011 Total	859	27	8,289	2,950	25	1,614	2,839	276	16,670	794	1,058	2,676	36,464
2011 Total	033	21	0,203	2,330	23	1,014	2,033	210	10,070	134	1,030	2,070	30,404
<b>2012</b> January	41	2	697	230	1	171	274	23	1,325	75	88	221	2,978
February	42	2	663	222	4	151	252	24	1,301	53	72	208	2,843
March	48	2	671	243	. 1	135	245	21	1,388	59	80	208	2,967
April	65	2	650	230	(s)	116	222	23	1,369	62	80	184	2,886
May	79	3	678	248	1	123	228	23	1,453	72	62	200	3,046
June	91	2	652	263	(s)	119	214	20	1,408	70	69	212	3,000
July	95	3	642	258	(s)	118	223	20	1,425	64	89	219	3,040
August	102	2	676	258	(s)	124	233	21	1,481	77	78	217	3,145
September	89	2	642	234	1	126	227	19	1,340	68	71	176	2,869
October	77	2	696	238	1	147	258	21	1,408	58	61	236	3,054
November	56	2	672	235	1	147	255	22	1,328	68	61	226	2,926
December	41	1	637	243	(s)	173	282	17	1,357	68	38	252	2,937
Total	827	25	7,977	2,901	11	1,649	2,912	254	16,584	794	849	2,558	35,691
<b>2013</b> January	46	2	732	228	2	201	308	24	1,330	69	68	218	3,025
February	39	1	648	210	1	171	277	21	1,229	47	53	204	2,732
March	49	2	681	241	3	164	278	24	1,394	57	84	195	3,006
April	59	2	676	241	1	132	240	20	1,372	53	54	217	2,934
May	61	2	681	249	(s)	110	223	24	1,453	67	42	236	3,039
June	82 93	2	641	243	(s)	113	214	26	1,404	73	57	233	2,975
July	93 95	2	644 673	267	(s)	125 123	244 235	22 22	1,465 1.470	67 78	71 79	249 213	3,125
August		2		268	(s)								3,136
September	93 78	2	649 739	241 255	1	126 156	233 276	23 22	1,396 1,427	71 61	66 59	257 227	3,032
October	78 51	2	675	255 242	1	162	289	18	1,427	78	59 62	22 <i>1</i> 264	3,147 3,052
November	37	1	675 714	242 253	-	183	289 309	21	1,403		43	264 250	3,052
December Total	7 <b>82</b>	22	8,154	2,937	3 <b>13</b>	1,766	309 3,125	<b>267</b>	1,403 <b>16,714</b>	57 <b>777</b>	738	2,764	<b>36,294</b>
2014 lanuari	36	•	771	244	•	202	225	20	4 220	04	E0	200	2.065
2014 January	R 38	2 1	771 <sup>R</sup> 682	241 <sup>R</sup> 218	3 R 1	203 <sup>R</sup> 155	325 R 260	20 R 20	1,328 <sup>R</sup> 1,271	81 <sup>R</sup> 50	52 R 37	206 R 210	3,065 R 2,787
February	RF 51	F 2	E 687	E 252	RF 3	E 136	RF 269	RF 20	E 1,426	F 59	E 47	RE 205	E 3,022
March April	F 59	F 2	E 705	E 240	F1	E 109	F 238	F 22	E 1,426	F 59	E 52	E 181	E 2.913
4-Month Total	E 185	E <b>6</b>	E <b>2,845</b>	E <b>951</b>	E 8	E <b>603</b>	E 1,091	E 82	E <b>5,379</b>	E <b>250</b>	E 189	E 802	E 11,788
2013 4-Month Total 2012 4-Month Total	193 197	6 8	2,738 2,681	919 924	6 7	669 572	1,102 994	89 91	5,325 5,383	226 250	259 320	835 821	11,698 11,675

Beginning in 1983, also includes crude oil burned as fuel. Beginning in 2005, also

Beginning in 1983, also includes crude oil burned as ruel. Degrining in 2003, also includes naphtha-type jet fuel.

R=Revised. E=Estimate. F=Forecast. NA=Not available. (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 1, "Petroleum Products Supplied and Petroleum Consumption," at end of section. • Totals may not equal sum of components due to independent rounding. . Geographic coverage is the 50 states and the District of Columbia.

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

beginning in 1973.
Sources: See end of section.

 <sup>&</sup>lt;sup>a</sup> Liquefied petroleum gases.
 <sup>b</sup> Beginning in 2009, includes renewable diesel fuel (including biodiesel)

Beginning in 2005, includes tertewable dieser fuel (including blodieser) blended into distillate fuel oil.

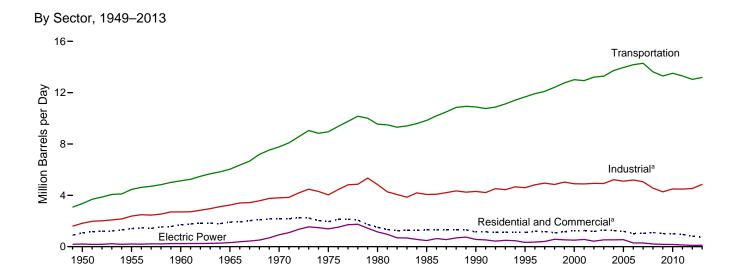
<sup>c</sup> Beginning in 1957, includes kerosene-type jet fuel. For 1952–2004, also includes naphtha-type jet fuel. (Through 1951, naphtha-type jet fuel is included in the products from which it was blended—gasoline, kerosene, and distillate fuel oil. Beginning in 2005, naphtha-type jet fuel is included in "Other.").

<sup>d</sup> Includes propylene.

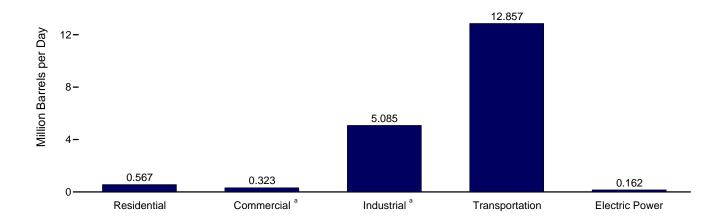
E Finished metre receive.

Includes propylene.
 Finished motor gasoline. Through 1963, also includes special naphthas.
 Beginning in 1993, also includes fuel ethanol blended into motor gasoline.
 I Pentanes plus, petrochemical feedstocks, still gas (refinery gas), waxes, and miscellaneous products. Beginning in 1964, also includes special naphthas Beginning in 1981, also includes negative barrels per day of distillate and residual fuel oil reclassified as unfinished oils, and other products (from both primary and secondary supply) reclassified as gasoline blending components.

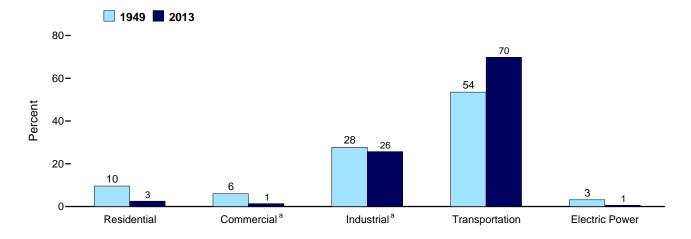
Figure 3.7 Petroleum Consumption by Sector



By Sector, February 2014



Sector Shares, 1949 and 2013



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

Web Page: http://www.eia.gov/totalenergy/data/monthly/#petroleum. Sources: Tables 3.7a–3.7c.

Table 3.7a Petroleum Consumption: Residential and Commercial Sectors

		Resident	ial 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		
1950 Average	390	168	104	662	123	23	28	52	NA	185	411		
1955 Average	562	179	144	885	177	24	38	69	NA	209	519		
1960 Average	736	171	217	1,123	232	23	58	35	NA	243	590		
1965 Average	805	161	275	1,242	251	26	74	40	NA	281	672		
1970 Average	883	144	392	1,419	276	30	102	45	NA	311	764		
1975 Average	850	78	365	1,293	276	24	92	46	NA	214	653		
1980 Average	617	51	222	890	243	20	63	56	NA	245	626		
1985 Average	514	77	224	815	297	16	68	50	NA	99	530		
1990 Average	460	31	252	742	252	6	73	58	. 0	100	489		
1995 Average	426	36	282	743	225	11	78	10	(s)	62	385		
2000 Average	424	46	395	865	230	14	107	23	(s)	40	415		
2001 Average	427	46	375	849	239	15	102	20	(s)	30	406		
2002 Average	404	29	384	817	209	8	101	24	(s)	35	376		
2003 Average	438	34	389	861	233	9	112	32	(s)	48	434		
2004 Average	433	41	364	839	221 210	10	108	23 24	(s)	53 50	416		
2005 Average	402 335	40 32	366 318	809 685	189	10 7	94 88	24 26	(s)	33	389 343		
2006 Average	342	21	345	708	181	4	87	32	(s) (s)	33	343		
2007 Average	354 354	10	394	758	181	2	113	32 24	(s) (s)	33 31	351 351		
2008 Average2009 Average	276	13	391	680	187	2	99	28	(s)	31	348		
2010 Average	266	14	379	659	185	2	100	28	(s)	27	343		
2011 Average	248	9	362	619	186	2	105	24	(s)	23	339		
2012 January	380	4	317	701	280	1	109	22	(s)	23	434		
February	319	19	310	648	235	3	106	23	(s)	19	387		
March	259	5	284	548	191	1	97	23	(s)	15	328		
April	190	1	267	458	140	(s)	91	24	(s)	11	266		
May	188	6	265	459	138	. 1	91	24	0	11	266		
June	195	. 1	259	455	143	(s)	89	24	0	12	268		
July	182	(s)	262	443	134	(s)	90	24	(s)	11	258		
August	228	(s)	271	500	168	(s)	93	25	(s)	14	300		
September	184	3	273 298	460 463	135	(s)	94	23 23	(s)	11	264 256		
October	163 215	2 2	298 304		120	(s)	102 104	23 23	(s)	10	299		
November	238	2	324	521 564	158 176	(s)	111	23 23	(s) (s)	13 14	324		
December	230 <b>228</b>	4	286	518	168	(s) <b>1</b>	98	23 <b>23</b>	(s)	14	324 <b>304</b>		
Average	220	-	200	310	100		30	23	(5)	14	304		
<b>2013</b> January	303	6	352	661	223	1	120	22	(s)	18	385		
February	311	5	350	666	229	1	120	23	(s)	19	391		
March	244	10	317	572	180	2	109	23	(s)	15	328		
April	189	3	285	477	139	. 1	98	24	(s)	11	272		
May	119	2	259	380	88	(s)	89	24	0	7	208		
June	87	2	257	346	64	(s)	88	24	0	5	182		
July	85	1	282	368	63	(s)	97	24	(s)	5	189		
August	110	2	272	384	81	(s)	93	24	(s)	7	206		
September	124 89	3 3	282 319	409 410	92 66	(s)	96 109	24 24	(s) (s)	7 5	220 204		
October November	140	2	319	410	103	(s) (s)	118	24 24	(s) (s)	8	204 253		
December	167	14	355	536	123	(s) 2	122	23	(s)	0 10	253 281		
Average	163	4	<b>306</b>	474	120	1	105	23 24	(s)	<b>10</b>	<b>259</b>		
2014 January	190	13	370	573	140	2	127	22	(s)	11	302		
February	233	4	330	567	172	1	113	23	(s)	14	323		
2-Month Average	210	9	351	570	155	1	120	23	(s)	13	312		
2013 2-Month Average 2012 2-Month Average	307 350	6 11	351 314	663 675	226 258	1 2	120 107	22 23	(s) (s)	18 21	388 411		

 <sup>&</sup>lt;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. Through 1963, also includes special naphthas.
 Beginning in 1993, also includes fuel ethanol blended into motor gasoline.

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

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

<sup>&</sup>quot;petroleum consumption" in Tables 3.7a–3.8c. See Note 1, "Petroleum Products Supplied and Petroleum Consumption," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia.

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

beginning in 1973.
Sources: See end of section.

Table 3.7b Petroleum Consumption: Industrial Sector

					Industria	I Sectora				
	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
			1101000110						J	
950 Average	180	328	132	100	43	131	41	617	250	1,822
955 Average	254	466	116	212	47	173	67	686	366	2,387
960 Average	302	476	78	333	48	198	149	689	435	2,708
965 Average	368	541	80	470	62	179	202	689	657	3,247
970 Average	447	577	89	699	70	150	203	708	866	3,808
975 Average	419	630	58	844	68	116	246	658	1,001	4,038
980 Average	396	621	87	1,172	82	82	234	586	1,581	4,842
985 Average	425	526	21	1,285	75	114	261	326	1,032	4,065
990 Average	483	541	6 7	1,215	84	97	325	179	1,373	4,304
995 Average	486	532 563		1,527	80	105	328 361	147 105	1,381	4,594
000 Average	525	611	8 11	1,720	86 79	79 155	390	89	1,458	4,903
001 Average	519 512	566	7	1,557 1.668	79 78	163	390 383	83	1,481 1.474	4,892 4.934
002 Average	503	551	12	1,560	78 72	163	383 375	83 96	1,474	4,934 4,918
003 Average	537	570	14	1,646	73	195	423	108	1,657	5,222
2004 Average	546	570 594	19	1,549	73 72	187	423 404	123	1,605	5,222
2006 Average	521	594 594	14	1,627	71	198	404 425	104	1,640	5,100
007 Average	494	595	6	1,637	73	161	412	84	1,593	5,056
008 Average	417	637	2	1,419	67	131	394	84	1,408	4,559
009 Average	360	509	2	1,541	61	128	363	57	1,251	4,272
010 Average	362	547	4	1,673	68	140	310	52	1,343	4,500
011 Average	355	586	2	1,714	64	138	295	59	1,272	4,484
012 January	201	721	1	2.041	62	122	338	38	1,253	4,777
February	220	808	5	1,994	71	128	250	33	1,238	4,747
March	234	631	1	1.825	57	128	288	35	1,160	4.358
April	327	619	(s)	1,715	64	130	317	36	1,067	4,275
May	383	598	1	1,705	63	134	351	27	1,128	4,389
June	455	513	(s)	1,665	55	134	347	28	1,219	4,417
July	464	393	(s)	1,683	55	131	304	36	1,228	4,293
August	497	454	(s)	1,746	56	136	368	33	1,221	4,510
September	445	552	ì	1,757	55	127	332	31	1,010	4,310
October	374	699	1	1,917	58	129	272	27	1,331	4,808
November	282	722	1	1,954	62	126	338	27	1,309	4,821
December	201	524	(s)	2,084	47	125	327	15	1,408	4,731
Average	340	602	`1	1,841	59	129	319	30	1,215	4,536
013 January	223	928	2	2,262	65	122	315	28	1,220	5,166
February	212	802	1	2,251	64	125	229	25	1,259	4,970
March	237	685	3	2,042	65	128	255	36	1,095	4,545
April	295	719	1	1,836	56	130	245	24	1,259	4,564
May	294	686	(s)	1,666	67	134	293	18	1,327	4,485
June	410	596	(s)	1,656	72	133	333	25	1,362	4,588
July	451	506	(s)	1,816	61	135	289	29	1,376	4,663
August	464	577	(s)	1,753	61	135	345	34	1,191	4,559
September	466	644	1	1,812	64	133	327	28	1,502	4,978
October	378	941	1	2,050	60	131	266	25	1,257	5,110
November	257	816	1	2,212	51	130	385	28	1,538	5,418
December Average	179 <b>323</b>	873 <b>731</b>	4 <b>1</b>	2,284 <b>1,969</b>	58 <b>62</b>	129 <b>130</b>	246 <b>294</b>	17 <b>27</b>	1,383 <b>1,313</b>	5,173 <b>4,850</b>
_				,					ŕ	,
014 January	177	1,114	3	2,384	55	122	365	18	1,143	5,382
February	205	1,008	1	2,126	60	129	238	17	1,301	5,085
2-Month Average	190	1,064	2	2,261	58	126	305	17	1,218	5,241
013 2-Month Average 012 2-Month Average	218 210	868 763	2 3	2,257 2,019	65 67	124 125	274 295	27 35	1,239 1,246	5,073 4,762

a Industrial sector fuel use, including that at industrial combined-heat-and-power

Notes: • Data are estimates. • For total petroleum consumption by all sectors, see petroleum products supplied data in Table 3.5. Petroleum products supplied is an approximation of petroleum consumption and is synonymous with the term 'petroleum consumption' in Tables 3.7a—3.8c. See Note 1, "Petroleum Products Supplied and Petroleum Consumption," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia

Solid to Components due to independent of the content of the conte

beginning in 1973.
Sources: See end of section.

54

<sup>(</sup>CHP) and industrial electricity-only plants.

b Finished motor gasoline. Through 1963, also includes special naphthas.

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

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

Beginning in 1981, also includes negative barrels per day of distillate and residual literal city and control of the products. secondary supply) 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 crude oil burned as fuel. includes naphtha-type jet fuel. (s)=Less than 500 barrels per day and greater than -500 barrels per day.

Table 3.7c Petroleum Consumption: Transportation and Electric Power Sectors

				Transportat	ion Sector	r			E	Electric Po	wer Sectora	
	Aviation Gasoline	Distillate Fuel Oil <sup>b</sup>	Jet Fuel <sup>c</sup>	Liquefied Petroleum Gases	Lubri- cants	Motor Gasoline <sup>d</sup>	Residual Fuel Oil	Total	Distillate Fuel Oil <sup>e</sup>	Petro- leum Coke	Residual Fuel Oil <sup>f</sup>	Total
4050 4	400		465			0.400	504	0.050	45		400	
1950 Average	108	226	(°)	2	64	2,433	524	3,356	15	NA	192	207
1955 Average	192	372	154	9	70	3,221	440	4,458	15	NA	191	206
1960 Average	161 120	418 514	371 602	13 23	68 67	3,736 4.374	367 336	5,135 6,036	10 14	NA NA	231 302	241 316
1965 Average 1970 Average	55	738	967	32	66	5,589	332	7,778	66	9	853	928
1975 Average	39	998	992	31	70	6,512	310	8.951	107	1	1.280	1.388
1980 Average	35	1,311	1,062	13	77	6,441	608	9,546	79	2	1,069	1,151
1985 Average	27	1,491	1,218	21	71	6,667	342	9,838	40	3	435	478
1990 Average	24	1,722	1,522	16	80	7,080	443	10,888	45	14	507	566
1995 Average	21	1,973	1,514	13	76	7,674	397	11,668	51	37	247	334
2000 Average	20	2,422	1,725	8	81	8,370	386	13,012	82	45	378	505
2001 Average	19	2,489	1,655	10	74	8,435	255	12,938	80	47	437	564
2002 Average	18	2,536	1,614	10	73	8,662	295	13,208	60	80	287	427
2003 Average	16	2,629	1,578	13	68	8,733	249	13,286	76	79	379	534
2004 Average	17	2,783	1,630	14	69	8,887	321	13,720	52	101	382	535
2005 Average	19	2,858	1,679	20	68	8,948	365	13,957	54	111	382	547
2006 Average	18	3,017	1,633	20	67	9,029	395	14,178	35	97	157	289
2007 Average	17	3,037	1,622	16	69	9,093	433	14,287	42	78	173	293
2008 Average	15	2,738	1,539	29	64	8,834	402	13,621	34	70	104	209
2009 Average	14	2,626	1,393	20	57	8,841	344	13,297	33	63	79	175
2010 Average	15	2,764	1,432	21	64	8,824	389	13,508	38	65	67	170
2011 Average	15	2,849	1,425	24	61	8,591	338	13,303	30	66	41	137
<b>2012</b> January	12	2,454	1,308	29	59	8,047	357	12,267	27	65	34	126
February	11	2,538	1,351	29	67	8,447	314	12,757	23	55	27	105
March	14	2,614	1,381	26	54	8,431	333	12,853	20	29	29	77
April	14	2,748	1,350	25	61	8,587	348	13,133	23	28	28	79
May	17	2,804	1,409	25	59	8,821	251	13,385	28	34	28	91
June	13	2,852	1,546	24	52	8,838	279	13,605	29 30	38	45	112
July	20	2,818	1,468	24 25	52 53	8,656	359 317	13,397		41	52 38	123
August	13 15	2,869 2.782	1,470	25 25	53 52	8,993 8.410	305	13,741	24 21	43 42	30 29	105 92
September	14	2,762	1,378 1.353	25 28	52 55	8,548	243	12,966 13.088	21	37	31	92
October November	10	2,040	1,381	28 28	59	8,334	243 255	12,795	24	40	28	90
December	9	2,720	1,381	30	45	8,241	138	12,793	27	38	28	93
Average	14	2,719	1,398	27	<b>56</b>	8,530	291	13,034	25	41	33	99
-		•									-	
<b>2013</b> January	11	2,568	1,297	33	62	8,074	254	12,298	32	54	50	136
February	8	2,610	1,320	32	61	8,264	223	12,519	24	52	37	113
March	12	2,643	1,369	29	61	8,465	353	12,932	21	51	28	100
April	12	2,803	1,414	26	53	8,612	219	13,140	22	49	29	99
May	15	2,853	1,416	24	63	8,825	162	13,357	26	66	28	120
June	15	2,898	1,431	24 26	68 57	8,807	240 279	13,484	22 34	70	32	124
July	16 14	2,881	1,519 1.525	26 25	57 57	8,896 8.929	330	13,675	22	68 70	48 33	150 125
August	11	2,937 2,832	1,323	26	61	8,761	283	13,817 13,392	22	66	30	117
September October	11	2,032	1,419	30	57	8.666	246	13,442	19	59	28	106
November	14	2,780	1,432	32	48	8,593	268	13,156	24	48	27	99
December	7	2,756	1,421	33	55	8.522	152	12,964	32	57	39	128
Average	12	2,796	1,419	28	59	8,620	251	13,186	25	59	34	118
2014 January	10	2,670	1,371	34	52	8,062	102	12,301	159	67	138	363
February	7	2,723	1,373	31	57	8,546	121	12,857	46	60	55	162
2-Month Average	9	2,695	1,372	33	54	8,292	111	12,565	105	64	99	267
2013 2-Month Average 2012 2-Month Average	10 12	2,588 2,495	1,308 1,329	33 29	61 63	8,164 8,240	239 336	12,403 12,503	28 25	53 60	44 31	125 116

<sup>&</sup>lt;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 and independent power producers.

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

NA=Not available.

Notes: • Transportation sector data are estimates. • For total petroleum consumption by all sectors, see petroleum products supplied data in Table 3.5. Petroleum products supplied is an approximation of petroleum consumption and is synonymous with the term "petroleum consumption" in Tables 3.7a—3.8c. See Note 1, "Petroleum Products Supplied and Petroleum Consumption," at end of section.

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

Web Page: See http://www.eia.gov/totalenergy/data/monthly/#petroleum (Excel

and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.

Sources: See end of section.

blended into distillate fuel oil.

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

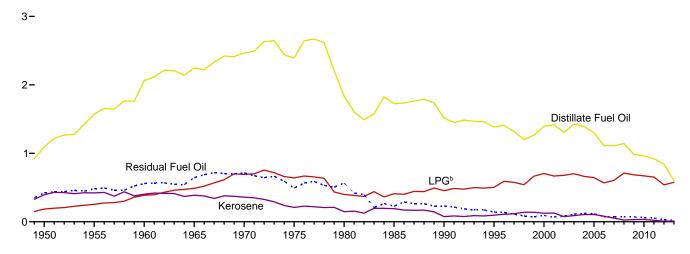
<sup>d</sup> Finished motor gasoline. Through 1963, also includes special naphthas. Beginning in 1993, also includes fuel ethanol blended into motor gasoline.

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

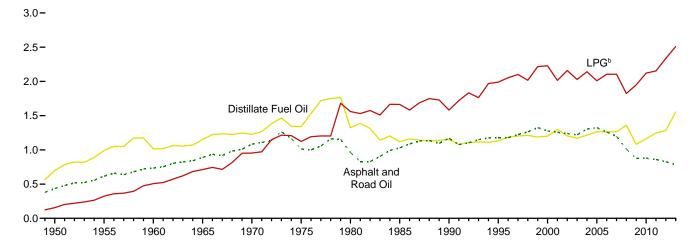
f Fuel oil nos. 5 and 6. Through 1979, data are for steam plant use of petroleum. Through 2000, electric utility data also include a small amount of fuel oil

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

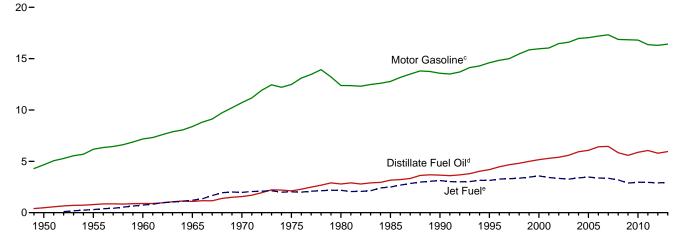
Residential and Commercial<sup>a</sup> Sectors, Selected Products



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



Transportation Sector, Selected Products



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

sel) blended into distillate fuel oil.

<sup>&</sup>lt;sup>b</sup> Liquefied petroleum gases.

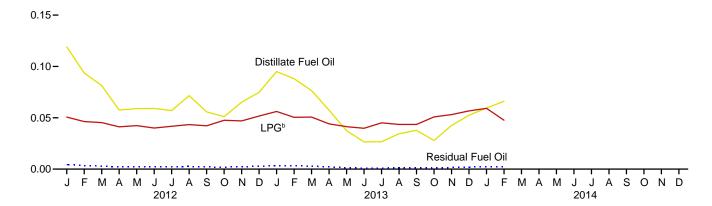
<sup>&</sup>lt;sup>c</sup> Beginning in 1993, includes fuel ethanol blended into motor gasoline.

<sup>&</sup>lt;sup>d</sup> Beginning in 2009, includes renewable diesel fuel (including biodie-

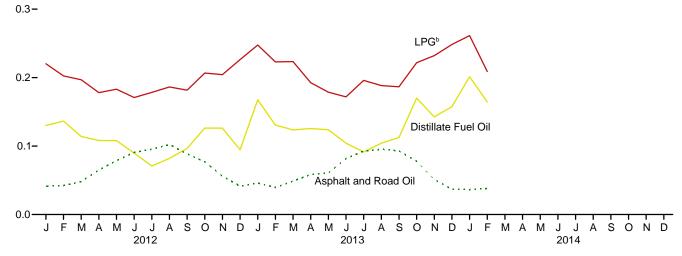
<sup>&</sup>lt;sup>e</sup> Beginning in 2005, includes kerosene-type jet fuel only. Web Page: http://www.eia.gov/totalenergy/data/monthly/#petroleum. Sources: Tables 3.8a–3.8c.

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

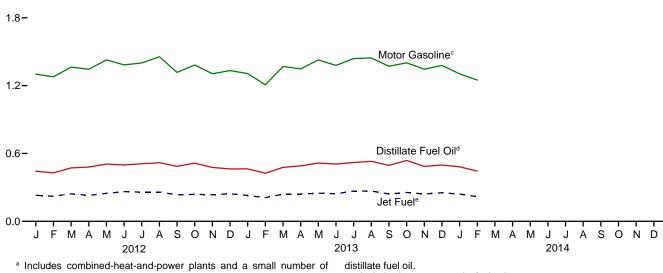
Residential and Commercial<sup>a</sup> Sectors, Selected Products 0.20-



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



Transportation Sector, Selected Products



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

Web Page: http://www.eia.gov/totalenergy/data/monthly/#petroleum. Sources: Tables 3.8a–3.8c.

<sup>&</sup>lt;sup>b</sup> Liquefied petroleum gases.

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

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

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

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

		Resident	ial Sector				Con	nmercial Sec	ctora		
	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
1950 Total	829	347	146	1,322	262	47	39	100	NA	424	872
1955 Total	1,194	371	202	1,767	377	51	54	133	NA	480	1,095
1960 Total	1,568	354	305	2,227	494	48	81	67	NA	559	1,248
1965 Total	1,713	334	385	2,432	534	54	103	77	NA	645	1,413
1970 Total	1,878	298	549	2,725	587	61	143	86	NA	714	1,592
1975 Total	1,807	161	512	2,479	587	49	129	89	NA	492	1,346
1980 Total	1,316	107	311	1,734	518	41	88	107	NA	565	1,318
1985 Total	1,092	159	314	1,565	631	33	95	96	NA_	228	1,083
1990 Total	978	64	352	1,394	536	12	102	111	0	230	991
1995 Total	905	74	395	1,374	479	22	109	18	(s)	141	769
2000 Total	905	95	555	1,554	491	30	150	45	(s)	92	807
2001 Total	908	95	526	1,529	508	31	143	37	(s)	70	790
2002 Total	860	60	537	1,457	444	16	141	45	(s)	80	726
2003 Total	932 924	70 85	544 512	1,547 1,520	496 470	19 20	157 152	60 45	(s) (s)	111 122	843 810
2004 Total 2005 Total	924 854	84	512 513	1,451	447	20	131	45 46	(s) (s)	116	762
2006 Total	712	66	446	1,451	401	15	123	46 49	(s) (s)	75	664
2007 Total	712	44	484	1,224	384	9	123	61	(s)	75 75	651
2008 Total	756	21	553	1,330	387	4	158	46	(s)	71	666
2009 Total	587	28	547	1,161	398	4	139	53	(s)	71	666
2010 Total	566	29	530	1,125	394	5	140	53	(s)	62	655
2011 Total	527	19	506	1,052	395	3	146	45	(s)	54	644
2012 January	69	1	38	107	50	(s)	13	4	(s)	4	72
February	54	3	34	92	40	(s)	12	4	(s)	3	59
March	47	1	34	81	34	(s)	12	4	(s)	3	53
April	33	(s)	31	64	24	(s)	11	4	(s)	2	41
May	34	1	32	66	25	(s)	11	4	0	2	42
June	34	(s)	30	64	25	(s)	10	4	0	2	41
July	33	(s)	31	64	24	(s)	11	4	(s)	2	41
August	41	(s)	32	74	30	(s)	11	4	(s)	3	48
September	32	. 1	31	64	24	(s)	11	4	(s)	2	40
October	29	(s)	35	65	22	(s)	12	4	(s)	2	40
November	38	(s)	35	73	28	(s)	12	4	(s)	2	46
December	43	(s)	39	82	32	(s)	13	4	(s)	3	51
Total	487	8	402	896	358	1	138	45	(s)	31	574
2013 January	55 51	1 1	42 38	98	40 37	(s)	14 13	4	(s)	4 3	62 57
February	51 44	1 2		89 84		(s)		4	(s)	3	57 52
March	33	2	38 33	66	32 24	(s) (s)	13 11	4	(s) (s)	2	52 41
April May	22	(s)	33 31	53	16	(s)	11	4	(s) 0	1	32
June	15	(s)	30	45	11	(s)	10	4	0	1	26
July	15	(s)	34	49	11	(s)	12	4	(s)	1	28
August	20	(s)	32	53	15	(s)	11	4	(s)	i	31
September	22	(s)	32	55	16	(s)	11	4	(s)	i	32
October	16	(s)	38	54	12	(s)	13	4	(s)	i	30
November	24	(s)	40	64	18	(s)	14	4	(s)	2	37
December	30	2	42	75	22	(s)	14	4	(s)	2	43
Total	347	9	428	784	256	1	147	45	(s)	22	471
2014 January	34	2	44	81	25	(s)	15	4	(s)	2	47
February	38	1	35	74	28	(s)	12	3	(s)	2	46
2-Month Total	72	3	80	155	53	(s)	27	7	(s)	5	93
2013 2-Month Total 2012 2-Month Total	105 122	2 4	79 72	187 198	78 90	(s) 1	27 25	7 7	(s) (s)	7 8	119 131

 <sup>&</sup>lt;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. Through 1963, also includes special naphthas.
 Beginning in 1993, also includes fuel ethanol blended into motor gasoline.

Na=Not available. (s)=Less than 0.5 trillion Btu and greater than -0.5 trillion Btu. Notes: • Data are estimates. • For total heat content of petroleum consumption by all sectors, see data for heat content of petroleum products supplied in Table 3.6. Petroleum products supplied is an approximation of petroleum consumption

and is synonymous with the term "petroleum consumption" in Tables 3.7a–3.8c. See Note 1, "Petroleum Products Supplied and Petroleum Consumption," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia.

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

Table 3.8b Heat Content of Petroleum Consumption: Industrial Sector

(Trillion Btu)

					Industri	al 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
1950 Total	435	698	274	156	94	251	90	1,416	546	3,960
1955 Total	615	991	241	323	103	332	147	1,573	798	5,123
1960 Total	734	1,016	161	507	107	381	328	1,584	947	5,766
1965 Total	890	1,150	165	712	137	342	444	1,582	1,390	6,813
1970 Total	1,082	1,226	185	953	155	288	446	1,624	1,817	7,776
1975 Total	1,014	1,339	119	1,123	149	223	540	1,509	2,109	8,127
1980 Total	962	1,324	181	1,559	182	158	516	1,349	3,278	9,509
1985 Total	1,029	1,119	44	1,664	166	218	575	748	2,152	7,714
1990 Total	1,170	1,150	12	1,582	186	185	714	411	2,839	8,251
1995 Total	1,178	1,131 1,200	15 16	1,990	178 190	200 150	721 796	337 241	2,837	8,588
2000 Total	1,276 1,257	1,300	23	2,228 2,014	174	295	858	203	2,979 3,056	9,076 9,181
2001 Total	1,257	1,300	23 14	2,014	174	295 309	842	203 190	3,056	9,161
2003 Total	1,220	1,171	24	2,028	159	324	825	220	3,264	9,235
2004 Total	1,304	1,214	28	2,141	161	372	934	249	3,428	9,831
2005 Total	1,323	1,264	39	2.009	160	356	889	281	3,318	9,640
2006 Total	1,261	1,263	30	2,104	156	376	934	239	3,416	9,780
2007 Total	1,197	1,265	13	2,106	161	306	906	193	3,313	9,461
2008 Total	1,012	1,359	4	1,823	150	250	868	194	2,941	8,600
2009 Total	873	1,081	4	1,950	135	244	799	130	2,611	7,827
2010 Total	878	1,163	7	2,121	149	267	682	120	2,800	8,188
2011 Total	859	1,246	4	2,152	142	262	648	135	2,676	8,125
<b>2012</b> January	41	130	(s)	220	12	20	63	7	221	715
February	42	136	. 1	203	13	19	44	6	208	671
March	48	114	(s)	197	11	21	54	7	208	659
April	65	108	(s)	178	12	20	57	7	184	631
May	79 91	108	(s)	183	12	22	66	5	200	674
June	91 95	90 71	(s) (s)	171 178	10 10	21 21	63 57	5 7	212 219	662 659
July August	102	82	(s)	186	11	22	69	6	217	695
September	89	97	(s)	182	10	20	60	6	176	638
October	77	126	(s)	207	11	21	51	5	236	734
November	56	126	(s)	204	11	20	61	5	226	710
December	41	95	(s)	226	9	20	61	3	252	707
Total	827	1,283	2	2,335	130	247	704	70	2,558	8,156
2013 January	46	168	(s)	248	12	20	59	6	218	775
February	39	131	(s)	223	11	18	39	4	204	670
March	49	124	(s)	223	12	21	48	7	195	679
April	59	126	(s)	193	10	20	44	4	217	674
May	61	124	(s)	179	13	22	55	4	236	692
June	82	104	(s)	172	13	21	60	5	233	689
July	93 95	91 104	(s)	196 188	11 11	22 22	54 64	6 7	249 213	722 705
August September	95 93	104	(s) (s)	188	11	22	59	, 5	213 257	705 746
October	93 78	170	(s)	222	12	21	59 50	5	227	746 784
November	51	143	(s)	232	9	20	70	5	264	794
December	37	158	1	248	11	21	46	3	250	774
Total	782	1,554	2	2,510	137	249	647	61	2,764	8,706
2014 January	36	201	1	261	10	20	68	3	206	807
February	38	164	(s)	209	10	19	40	3	210	693
2-Month Total	75	366	`1	470	21	39	108	6	415	1,501
2013 2-Month Total 2012 2-Month Total	85 84	298 267	1 1	471 423	23 24	38 39	97 107	10 13	422 429	1,445 1,386

a Industrial sector fuel use, including that at industrial combined-heat-and-power

Notes: • Data are estimates. • For total heat content of petroleum consumption by all sectors, see data for heat content of petroleum products supplied in Table 3.6. Petroleum products supplied is an approximation of petroleum consumption and is synonymous with the term "petroleum consumption" in Tables 3.7a–3.8c. See Note 1, "Petroleum Products Supplied and Petroleum Consumption," at end of section. • Totals may not equal sum of components due to independent rounding.

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

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

beginning in 1973.
Sources: See end of section.

<sup>(</sup>CHP) and industrial electricity-only plants.

b Finished motor gasoline. Through 1963, also includes special naphthas.

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

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

Beginning in 1981, also includes negative barrels per day of distillate and residual literal city and control of the products. 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.

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

				Transporta	tion Secto	r			Е	lectric Po	wer Sector <sup>a</sup>	
	Aviation Gasoline	Distillate Fuel Oil <sup>b</sup>	Jet Fuel <sup>c</sup>	Liquefied Petroleum Gases	Lubri- cants	Motor Gasoline <sup>d</sup>	Residual Fuel Oil	Total	Distillate Fuel Oil <sup>e</sup>	Petro- leum Coke	Residual Fuel Oil <sup>f</sup>	Total
1950 Total	199	480	(°)	3	141	4,664	1,201	6,690	32	NA	440	472
	354	791	301	13	155	6,175	1,009	8,799	32	NA	439	471
	298	892	739	19	152	7,183	844	10,125	22	NA	530	553
1965 Total	222	1,093	1,215	32	149	8,386	770	11,866	29	NA	693	722
1970 Total	100	1,569	1,973	44	147	10,716	761	15,310	141	19	1,958	2,117
1975 Total	71	2,121	2,029	43	155	12,485	711	17,615	226	2	2,937	3,166
1980 Total	64	2,795	2,179	18	172	12,383	1,398	19,009	169	5	2,459	2,634
1985 Total	50	3,170	2,497	30	156	12,784	786	19,472	85	7	998	1,090
1990 Total	45	3,661	3,129	23	176	13,575	1,016	21,626	97	30	1,163	1,289
1995 Total	40 36 35 34	4,195 5,165 5,292	3,132 3,580 3,426	18 12 14 14	168 179 164	14,607 15,960 16,041 16.465	911 888 586 677	23,070 25,820 25,557	108 175 171 127	81 99 103 175	566 871 1,003 659	755 1,144 1,277 961
2002 Total 2003 Total 2004 Total 2005 Total	34 30 31 35	5,392 5,590 5,932 6,076	3,340 3,265 3,383 3,475	14 18 19 28	162 150 152 151	16,465 16,597 16,962 17,043	571 740 837	26,085 26,222 27,219 27,645	161 161 111 115	175 175 222 243	869 879 876	1,205 1,212 1,235
2006 Total	33	6,414	3,379	27	147	17,197	906	28,105	74	214	361	648
2007 Total	32	6,457	3,358	22	152	17,321	994	28,335	89	171	397	657
2008 Total	28	5,837	3,193	40	141	16,872	926	27,038	73	154	240	468
2009 Total	27	5,584	2,883	28	127	16,838	791	26,277	70	139	181	390
2010 Total	27	5,876	2,963	29	141	16,807	892	26,736	80	144	154	378
2011 Total	27	6,057	2,950	34	134	16,363	776	26,341	64	146	93	303
2012 January	2	443	230	3	11	1,302	70	2,061	5	12	7	24
	2	429	222	3	12	1,278	57	2,003	4	10	5	18
	2	472	243	3	10	1,364	65	2,159	4	5	6	15
March April May June	2 3 2	480 506 498	230 248 263	3 3 3	11 11 11	1,344 1,427 1,384	66 49 53	2,139 2,136 2,247 2,212	4 5 5	5 6 7	5 6 9	14 17 20
July	3	509	258	3	10	1,400	70	2,253	5	8	10	23
August	2	518	258	3	10	1,455	62	2,308	4	8	7	20
September	2	486	234	3	9	1,317	57	2,109	4	8	6	17
October  November  December	2	514	238	3	10	1,383	47	2,198	4	7	6	17
	2	477	235	3	11	1,305	48	2,080	4	7	5	17
	1	463	243	4	8	1,333	27	2,079	5	7	6	18
Total 2013 January	<b>25</b> 2 1	<b>5,796</b> 464 426	<b>2,901</b> 228 210	<b>37</b> 4 3	123 12 10	1,306 1,208	<b>671</b> 49 39	25,847 2,065 1,897	<b>53</b> 6 4	90 10 9	<b>77</b> 10 6	<b>219</b> 26 19
February March April May	2 2 2	420 477 490 515	241 241 249	3 3 3	10 11 10 12	1,369 1,348 1,428	69 41 32	2,173 2,135 2,240	4 4 5	9 9 12	6 6 5	19 18 23
June	2	506	243	3	12	1,379	45	2,192	4	13	6	22
July	3	520	267	3	11	1,439	54	2,297	6	13	9	28
August	2	530	268	3	11	1,445	64	2,323	4	13	6	24
September October November December	2	495	241	3	11	1,372	53	2,177	4	12	6	21
	2	538	255	4	11	1,402	48	2,259	3	11	5	20
	2	486	242	4	9	1,345	50	2,138	4	9	5	18
	1	498	253	4	10	1.379	30	2,174	6	11	8	24
Total	<b>22</b>	<b>5,945</b> 482	<b>2,937</b> 241	<b>40</b>	<b>130</b>	<b>16,420</b> 1,304	<b>576</b> 20	<b>26,071</b> 2,063	<b>53</b> 29	<b>130</b> 12	<b>78</b> 27	<b>262</b> 68
February	1	444	218	3	10	1,249	21	1,946	7	10	10	27
2-Month Total	3	<b>926</b>	<b>459</b>	7	19	<b>2,553</b>	<b>41</b>	<b>4,009</b>	<b>36</b>	<b>23</b>	<b>37</b>	<b>95</b>
2013 2-Month Total	3	889	438	7	22	2,514	89	3,962	10	19	16	45
2012 2-Month Total	4	872	452	7	23	2,580	127	4,064	9	22	12	42

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

petroleum. Through 2000, electric utility data also include a small amount of fuel oil no. 4. NA=Not available.

Notes: • Transportation sector data are estimates. • For total heat content of petroleum consumption by all sectors, see data for heat content of petroleum products supplied in Table 3.6. Petroleum products supplied is an approximation of petroleum consumption and is synonymous with the term "petroleum consumption" in Tables 3.7a–3.8c. See Note 1, "Petroleum Products Supplied and Petroleum Consumption," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District

to independent forming. • Geographic coverage is the 30 states and the bishict of Columbia.

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

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

<sup>d</sup> Finished motor gasoline. Through 1963, also includes special naphthas. Beginning in 1993, also includes fuel ethanol blended into motor gasoline.

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

<sup>f</sup> Fuel oil nos. 5 and 6. Through 1979, data are for steam plant use of

# Petroleum

Note 1. Petroleum Products Supplied and Petroleum **Consumption.** Total petroleum products supplied is the sum of the products supplied for each petroleum product, crude oil, unfinished oils, and gasoline blending components. For each of these except crude oil, product supplied is calculated by adding refinery production, natural gas plant liquids production, new supply of other liquids, imports, and stock withdrawals, and subtracting stock additions, refinery inputs, and exports. Crude oil product supplied is the sum of crude oil burned on leases and at pipeline pump stations as reported on Form EIA-813, "Monthly Crude Oil Report." Prior to 1983, crude oil burned on leases and used at pipeline pump stations was reported as either distillate or residual fuel oil and was included as product supplied for these products. Petroleum product supplied (see Tables 3.5 and 3.6) is an approximation of petroleum consumption and is synonymous with the term "Petroleum Consumption" in Tables 3.7a-3.8c.

**Note 2. Petroleum Survey Respondents.** The U.S. Energy Information Administration (EIA) uses a number of sources and methods to maintain the survey respondent lists. On a regular basis, survey managers review such industry publications as the *Oil & Gas Journal* and *Oil Daily* for information on facilities or companies starting up or closing down operations. Those sources are augmented by articles in newspapers, communications from respondents indicating changes in status, and information received from survey systems.

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

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

http://www.eia.gov/totalenergy/data/monthly/archive/00351307.pdf. The notes discuss:

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

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

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

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

Note 5, "Stocks of Alaskan Crude Oil": In 1981, EIA began to include data for stocks of Alaskan crude oil in transit. Note 6, "Petroleum Data Discrepancies": In 1976, 1978, and 1979, there are some small discrepancies between data in the MER and the *Petroleum Supply Annual*.

# **Table 3.1 Sources**

1949–1975: Bureau of Mines, Mineral Industry Surveys, *Petroleum Statement, Annual*, annual reports.

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

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

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

### **Table 3.6 Sources**

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

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

#### **Jet Fuel**

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

#### Liquefied Petroleum Gases (LPG) Total

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

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

#### **Motor Gasoline**

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

#### **Other Petroleum Products**

Prior to the current two months, product supplied data in thousand barrels per day for "other" petroleum products are from the PSA, PSM, and earlier publications (see sources for Table 3.5). "Other" petroleum products include pentanes plus, petrochemical feedstocks, special naphthas, still gas (refinery gas), waxes, and miscellaneous products; beginning in 1981, also includes negative barrels per day of distillate and residual fuel oil reclassified as unfinished oils, and other products (from both primary and secondary supply) reclassified as gasoline blending components; beginning in 1983, also includes crude oil burned as fuel; and beginning in 2005, also includes naphtha-type jet fuel. These data are converted to trillion Btu by multiplying by the appropriate heat content factors in MER Table A1. Total "Other" petroleum product supplied is the sum of the data in trillion Btu for the individual products.

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

#### **Total Petroleum**

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

# Tables 3.7a-3.7c Sources

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

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

1960-1972: EIA, State Energy Data System.

Petroleum consumption data beginning in 1973 are derived from data for "petroleum products supplied" from the following sources:

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

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

1981–2012: EIA, *Petroleum Statement Annual*, annual reports, and unpublished revisions.

2013 and 2014: EIA, *Petroleum Supply Monthly*, monthly reports.

Beginning in 1973, energy-use allocation procedures by individual product are as follows:

### Asphalt and Road Oil

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

#### **Aviation Gasoline**

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

#### **Distillate Fuel Oil**

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

# Distillate Fuel Oil Consumed by the Electric Power Sector

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

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

The aggregate end-use amount is total distillate fuel oil supplied minus the amount consumed by the electric power sector. The end-use total consumed annually is allocated to the individual end-use sectors (residential, commercial, industrial, and transportation) in proportion to each sector's share of sales as reported in EIA's *Fuel Oil and Kerosene Sales* (*Sales*) report series (DOE/EIA-0535), which is based primarily on data collected by Form EIA-821, "Annual Fuel Oil and Kerosene Sales Report"

(previously Form EIA-172). Shares for the current year are based on the most recent Sales report.

Following are notes on the individual sector groupings:

Beginning in 1979, the residential sector sales total is directly from the Sales reports. Through 1978, each year's sales subtotal of the heating plus industrial category is split into residential, commercial, and industrial (including farm) in proportion to the 1979 shares.

Beginning in 1979, the commercial sector sales total is directly from the Sales reports. Through 1978, each year's sales subtotal of the heating plus industrial category is split into residential, commercial, and industrial (including farm) in proportion to the 1979 shares.

Beginning in 1979, the industrial sector sales total is the sum of the sales for industrial, farm, oil company, off-highway diesel, and all other uses. Through 1978, each year's sales subtotal of the heating plus industrial category is split into residential, commercial, and industrial (including farm) in proportion to the 1979 shares, and this estimated industrial portion is added to oil company, off-highway diesel, and all other uses.

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

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

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

The transportation highway use portion is allocated into the months in proportion to each month's share of the year's total sales for highway use as reported by the Federal Highway Administration's Table MF-25, "Private and Commercial Highway Use of Special Fuels by Months." Beginning in 1994, the sales-for-highway-use data are no longer available as a monthly series; the 1993 data are used for allocating succeeding year's totals into months.

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

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

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

### **Jet Fuel**

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

### Kerosene

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

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

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

Beginning in 1979, the industrial sector sales total is the sum of the sales for industrial, farm, and all other uses. Through 1978, each year's sales category called "heating" is allocated to the residential, commercial and industrial sectors in proportion to the 1979 shares, and the estimated industrial (including farm) portion is added to all other uses.

### Liquefied Petroleum Gases (LPG)

The annual shares of LPG's total consumption that are estimated to be used by each sector are applied to each month's total LPG consumption to create monthly sector

consumption estimates. The annual sector shares are calculated as described below.

Sales of LPG to the residential and commercial sectors combined are converted from thousand gallons per year to thousand barrels per year and are assumed to be the annual consumption of LPG by the combined sectors. Beginning in 2003, residential sector LPG consumption is assumed to equal propane retail sales, with the remainder of the combined residential and commercial LPG consumption being assigned to the commercial sector. Through 2002, residential sector LPG consumption is based on the average of the state residential shares for 2003–2008, with the remainder of the combined residential and commercial LPG consumption being assigned to the commercial sector.

The quantity of LPG sold each year for consumption in internal combustion engines is allocated between the transportation and industrial sectors on the basis of data for special fuels used on highways published by the U.S. Department of Transportation, Federal Highway Administration, in *Highway Statistics*. The allocations of LPG sold for internal combustion engine use to the transportation sector range from a low of 20 percent (in 2001) to a high of 80 percent (in 2008).

LPG consumed annually by the industrial sector is estimated as the difference between LPG total product supplied and the sum of the estimated LPG consumption by the residential, commercial, and transportation sectors. The industrial sector LPG consumption includes LPG used by chemical plants as raw materials or solvents and used in the production of synthetic rubber; refinery fuel use; use as synthetic natural gas feedstock and use in secondary recovery projects; all farm use; LPG sold to gas utility companies for distribution through the mains; and a portion of the use of LPG as an internal combustion engine fuel.

Sources of the annual sales data for creating annual energy shares are:

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

1973-1982:

The consumption of lubricants is allocated to the industrial and transportation sectors for all months according to proportions developed from annual sales of lubricants to the two sectors from U.S. Department of Commerce, Bureau of the Census, *Current Industrial Reports*, "Sales of Lubricating and Industrial Oils and Greases." The 1973 shares are applied to 1973 and 1974; the 1975 shares are applied to 1975 and 1976; and the 1977 shares are applied to 1977 forward.

#### **Motor Gasoline**

The total monthly consumption of motor gasoline is allocated to the sectors in proportion to aggregations of annual sales categories created on the basis of the U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics*, Tables MF-21, MF-24, and MF-25, as follows:

Commercial sales are the sum of sales for public non-highway use and miscellaneous and unclassified uses.

Industrial sales are the sum of sales for agriculture, construction, and industrial and commercial use as classified in the *Highway Statistics*.

Transportation sales are the sum of sales for highway use (minus the sales of special fuels, which are primarily diesel fuel and are accounted for in the transportation sector of distillate fuel) and sales for marine use.

### **Petroleum Coke**

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

### Residual Fuel Oil

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

## Residual Fuel Oil Consumed by the Electric Power Sector

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

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

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

Following are notes on the individual sector groupings:

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

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

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

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

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

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

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

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

### **Other Petroleum Products**

Consumption of all remaining petroleum products is assigned to the industrial sector. Other petroleum products include pentanes plus, petrochemical feedstocks,

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

### **Table 3.8a Sources**

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

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

### **Liquefied Petroleum Gases (LPG)**

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

### **Motor Gasoline**

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

### **Total Petroleum**

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

### Table 3.8b Sources

Asphalt and Road Oil, Distillate Fuel Oil, Kerosene, Lubricants, Petroleum Coke, and Residual Fuel Oil Industrial sector consumption data in thousand barrels per day for these petroleum products are from Table 3.7b, and are converted to trillion Btu by multiplying by the appropriate heat content factors in Table A1.

### **Liquefied Petroleum Gases (LPG)**

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

### **Motor Gasoline**

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

### **Other Petroleum Products**

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

### **Total Petroleum**

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

### **Table 3.8c Sources**

### Aviation Gasoline, Distillate Fuel Oil, Lubricants, Petroleum Coke, and Residual Fuel Oil

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

### Jet Fuel

Transportation sector consumption data in thousand barrels

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

### **Liquefied Petroleum Gases (LPG)**

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

### **Motor Gasoline**

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

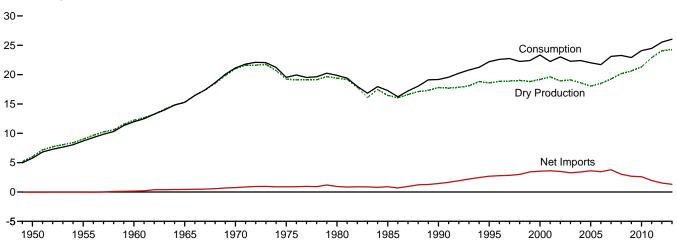
#### **Total Petroleum**

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

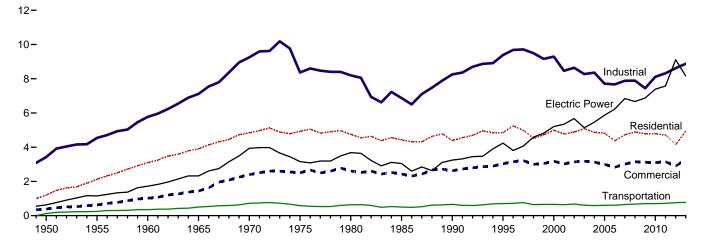
# 4. Natural Gas

Figure 4.1 Natural Gas (Trillion Cubic Feet)

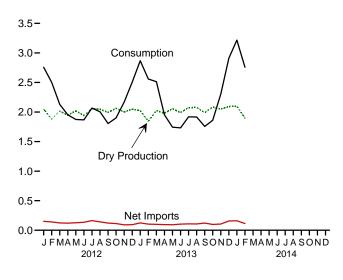




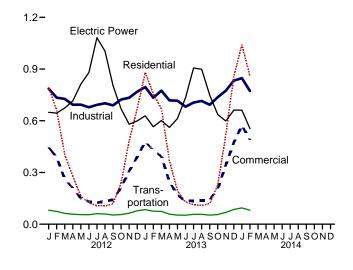
### Consumption by Sector, 1949-2013



### Overview, Monthly



### Consumption by Sector, Monthly



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

Table 4.1 Natural Gas Overview

(Billion Cubic Feet)

	0	Manhatad			Supple-		Trade		Net		
	Gross With- drawals <sup>a</sup>	Marketed Production (Wet) <sup>b</sup>	NGPL Production <sup>c</sup>	Dry Gas Production <sup>d</sup>	mental Gaseous Fuels <sup>e</sup>	Imports	Exports	Net Imports	Storage With- drawals <sup>f</sup>	Balancing Item <sup>g</sup>	Consump tion <sup>h</sup>
950 Total	8,480	i 6,282	260	i 6,022	NA	0	26	-26	-54	-175	5,767
955 Total	11,720	i 9,405	377	i 9,029	NA	11	31	-20	-68	-247	8,694
960 Total	15,088	12.771	543	<sup>1</sup> 12.228	NA	156	11	144	-132	-274	11,967
965 Total	17,963	<sup>1</sup> 16,040	753	<sup>1</sup> 15,286	NA	456	26	430	-118	-319	15,280
970 Total	23,786	121,921	906	121,014	NA	821	70	751	-398	-228	21,139
975 Total	21,104	i 20,109	872	<sup>1</sup> 19,236	NA	953	73	880	-344	-235	19,538
980 Total	21,870	20,180	777	19,403	155	985	49	936	23	-640	19,877
985 Total	19,607	17,270	816	16,454	126	950	55	894	235	-428	17,281
990 Total	21,523	18,594	784	17,810	123	1,532	86	1,447	-513	307	<sup>j</sup> 19.174
995 Total	23,744	19,506	908	18,599	110	2,841	154	2,687	415	396	22,207
000 Total	24,174	20,198	1,016	19,182	90	3,782	244	3,538	829	-306	23,333
001 Total	24,501	20,570	954	19,616	86	3,977	373	3,604	-1,166	99	22,239
002 Total	23,941	19,885	957	18,928	68	4,015	516	3,499	467	65	23,027
003 Total	24,119	19,974	876	19,099	68	3,944	680	3,264	-197	44	22,277
004 Total	23.970	19.517	927	18.591	60	4.259	854	3,404	-114	461	22,403
005 Total	23,457	18,927	876	18,051	64	4,341	729	3,612	52	236	22,014
006 Total	23.535	19,410	906	18.504	66	4,186	724	3,462	-436	103	21,699
007 Total	24,664	20,196	930	19,266	63	4,608	822	3,785	192	-203	23,104
008 Total	25,636	21,112	953	20.159	61	3,984	963	3,021	34	2	23,277
009 Total	26,057	21,648	1.024	20,624	65	3,751	1.072	2,679	-355	-103	22,910
010 Total	26,816	22,382	1,066	21,316	65	3,741	1,137	2,604	-13	115	24,087
011 Total	28,479	24,036	1,134	22,902	60	3,469	1,506	1,963	-354	-94	24,477
012 January	2.571	2.155	106	2.048	5	281	130	151	553	(s)	2,757
February	2,360	1,976	98	1,879	5	270	130	140	467	11	2,502
March	2,524	2.121	105	2.016	5	265	141	124	-38	21	2.129
April	2,417	2,047	101	1,946	5	243	123	120	-141	24	1,953
May	2,491	2.123	105	2.018	5	259	133	126	-288	13	1.874
June	2,377	2,042	101	1,941	5	260	125	135	-236	23	1,867
July	2.465	2.164	107	2.057	5	281	118	163	-137	-21	2.067
August	2,374	2,154	106	2,048	5	281	139	142	-169	-22	2,003
September	2,410	2,097	104	1,993	5	258	137	121	-295	-19	1,805
October	2,557	2,171	107	2.064	5	253	140	113	-246	-36	1,901
November	2,471	2,104	104	2,000	5	234	142	92	129	-58	2,168
December	2,524	2,155	106	2.048	5	252	159	94	392	-32	2,507
Total	29,542	25,308	1,250	24,058	61	3,138	1,619	1,519	-9	-96	25,533
013 January	2,536	E 2,127	105	E 2,022	6	278	154	124	721	-5	2,867
February	2,307	E 1,942	98	E 1,844	5	237	133	104	604	2	2,558
March	2,536	E 2,136	110	E 2,026	6	248	149	100	380	(s)	2,512
April	2,473	E 2,086	107	E 1,979	5	221	126	95	-136	`11	1,954
May	2,541	E 2,166	110	E 2,056	5	234	142	92	-418	8	1,744
June	2,444	E 2,097	107	E 1,990	3	237	134	103	-372	8	1,732
July	2,550	E 2,188	113	E 2,076	3	236	129	108	-275	7	1,918
August	2,546	E 2,194	117	E 2,076	5	236	130	106	-270	(s)	1,916
September	2,466	E 2,106	116	E 1,990	5	244	122	121	-355	`-7	1,756
October	2,580	E 2,201	119	E 2,082	4	220	122	98	-255	-69	1,861
November	2,559	E 2,165	117	E 2,048	5	219	114	105	211	-64	2,305
December	2,631	E 2,208	116	E 2,092	5	273	117	156	714	-55	2,912
Total	30,171	E 25,616	1,335	E 24,282	57	2,883	1,572	1,311	549	-163	26,035
014 January	R 2,641	RE 2,217	118	RE 2,099	5	295	134	161	967	R -15	R 3,216
February	2,381	E 2,004	108	E 1,896	6	247	133	114	726	15	2,757
2-Month Total	5,022	<sup>E</sup> 4,221	226	E 3,995	11	542	268	275	1,693	(s)	5,973
013 2-Month Total 012 2-Month Total	4,843 4,931	<sup>E</sup> 4,069 4,131	204 204	E 3,866 3,927	11	515	287	228 290	1,325	-4	5,425

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

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

beginning in 1973.

Sources: • Imports and Exports: Table 4.2. • Consumption: Table 4.3. • Balancing Item: Calculated as consumption minus dry gas production, supplemental gaseous fuels, net imports, and net storage withdrawals. • All Other Data: 1949–2007—U.S. Energy Information Administration (EIA), Natural Gas Annual, annual reports. 2008 forward—EIA, Natural Gas Monthly, April 2014, Table 1

<sup>&</sup>lt;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> Natural gas plant liquids (NGPL) production, gaseous equivalent. This data series was previously called "Extraction Loss." See Note 2, "Natural Gas Plant Liquids Production," at end of section.

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

Marketed production (wet) minus NGPL production.
See Note 3, "Supplemental Gaseous Fuels," at end of section.
Net withdrawals from underground storage. For 1980–2012, also includes net

withdrawals of liquefied natural gas in above-ground tanks. See Note 4, "Natural Gas Storage," at end of section.

9 See Note 5, "Natural Gas Balancing Item," at end of section. Beginning in 1980, excludes transit shipments that cross the U.S.-Canada border (i.e., natural

gas delivered to its destination via the other country).

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

<sup>i</sup> Through 1979, 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 4.2 Natural Gas Trade by Country

(Billion Cubic Feet)

		1010 1 001	-,							1				
					Imports							Exports		
	Algeria	Canada <sup>b</sup>	Egypta	Mexicob	Nigeria	Qatara	Trinidad and Tobago <sup>a</sup>	Other <sup>a,c</sup>	Total	Canada <sup>b</sup>	Japan <sup>a</sup>	<b>Mexico</b> b	Other <sup>a,d</sup>	Total
1950 Total 1955 Total 1965 Total 1965 Total 1965 Total 1975 Total 1975 Total 1975 Total 1975 Total 1980 Total 1980 Total 1980 Total 1990 Total 1990 Total 2000 Total 2001 Total 2002 Total 2003 Total 2004 Total 2005 Total 2006 Total 2006 Total	0 0 0 0 0 1 5 86 24 84 84 7 65 27 53 120 97 177	Canada <sup>b</sup> 0 11 109 405 779 948 797 926 1,448 2,816 3,544 3,729 3,785 3,437 3,607 3,700 3,590 3,783	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 (s) 47 2 (s) 0 0 102 0 0 0 7 12 12 12 0 0 9 9 133 54	Nigeria <sup>a</sup> 0 0 0 0 0 0 0 0 0 13 38 8 50 12 8 57 95	Qatar <sup>a</sup> 0 0 0 0 0 0 0 0 0 0 0 46 23 35 14 12 3 0 18	Tobago <sup>a</sup> 0 0 0 0 0 0 0 0 0 0 0 0 99 98 151 378 462 439 389 448	Other <sup>a,c</sup> 0 0 0 0 0 0 0 0 0 0 21 14 8 11 0 18	Total  0 11 156 456 456 953 985 1,532 2,841 3,782 3,977 4,015 3,944 4,259 4,341 4,186 4,608	Canada <sup>b</sup> 3 11 6 18 11 10 (s) (s) 17 28 73 167 189 271 395 358 341 482	Japan <sup>a</sup> 0 0 0 0 444 53 53 53 565 666 663 662 665 6147	23 20 6 8 15 9 4 2 16 61 106 141 263 343 397 305 322 292	Other <sup>a.d</sup> 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Total  26 31 11 26 70 73 49 55 86 154 244 373 516 680 854 729 724 822
2008 Total	0 0 0 0	3,589 3,271 3,280 3,117	55 160 73 35	43 28 30 3	12 13 42 2	3 13 46 91	267 236 190 129	15 29 81 92	3,984 3,751 3,741 3,469	559 701 739 937	39 31 33 18	365 338 333 499	0 3 32 52	963 1,072 1,137 1,506
Petron July September October November Total	0 0 0 0 0 0 0 0	265 250 246 235 243 251 266 262 246 243 220 235 <b>2,963</b>	0 3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	(s) (s) (s) (s) (s) (s) (s) (s) (s) (s)	0 0 0 0 0 0 0 0	4 4 4 6 0 3 3 3 6 3 0 3 4	9 11 13 1 11 8 12 16 8 5 8 8 112	3 6 3 3 0 0 0 0 0 0 3 9 26	281 270 265 243 259 260 281 281 258 253 234 252 <b>3,138</b>	84 87 93 78 78 64 62 77 80 75 93 101 <b>971</b>	3 2 0 0 3 2 0 2 0 2 0 0 14	40 42 46 45 52 58 57 60 58 61 49 52 <b>620</b>	3 0 3 0 0 0 0 0 0 0 3 0 0 0 0 0 0 6 1 1 1 1 1 1 1 1 1 1 1 1 1	130 130 141 123 133 125 118 139 137 140 142 159
Pebruary February March April May June July August September October November December Total	0 0 0 0 0 0 0 0 0	265 225 240 215 229 228 227 227 215 216 270 <b>2,786</b>	0 0 0 0 0 0 0 0 0	(s) (s) (s) (s) (s) (s) (s) (s) (s) (s)	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 4 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	11 8 5 6 8 8 6 9 3 3 0 70	3 0 0 0 0 0 0 3 6 3 0 3	278 237 248 221 234 237 236 244 220 219 273 <b>2,883</b>	99 84 92 71 82 76 66 68 70 70 60 73 <b>911</b>	0 0 0 0 0 0 0 0 0	56 49 56 55 60 58 62 62 53 53 54 44 <b>661</b>	0 0 0 0 0 0 0 0	154 133 149 126 142 134 129 130 122 122 114 117 <b>1,572</b>
2014 January February 2-Month Total	0 0 <b>0</b>	287 243 <b>530</b>	0 0 <b>0</b>	(s) (s) <b>(s)</b>	0 0 <b>0</b>	0 0 <b>0</b>	6 4 <b>10</b>	2 0 <b>2</b>	295 247 <b>542</b>	81 83 <b>165</b>	0 0 <b>0</b>	53 47 <b>100</b>	0 3 <b>3</b>	134 133 <b>268</b>
2013 2-Month Total 2012 2-Month Total	0	490 515	0 3	(s) (s)	0 0	4 4	18 21	3 9	515 551	183 170	0 5	104 82	0 3	287 261

<sup>&</sup>lt;sup>a</sup> As liquefied natural gas.
<sup>b</sup> By pipeline, except for small amounts of: liquefied natural gas (LNG) imported from Canada in 1973, 1977, 1981, and 2013; LNG exported to Canada in 2007 and 2012 forward; compressed natural gas (CNG) exported to Canada in 2013 and 2014; and LNG exported to Mexico beginning in 1998. See Note 9, "Natural Gas Imports and Exports," at end of section.
<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 2008–2013; Oman in 2000–2005; Peru in 2010 and 2011; United Arab Emirates in 1996–2000; Yemen in 2010 forward; and Other (unassigned) in 2004.
<sup>d</sup> Brazil in 2010–2012 and 2014; Chile in 2011; China in 2011; India in 2010–2012; Portugal in 2012; Russai 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.

Through 1964, all volumes are shown on a pressure base of 14.65 psia (pounds per square inch absolute) at 60° Fahrenheit; beginning in 1965, the pressure base is 14.73 psia at 60° Fahrenheit.
 Totals may not equal sum of components due to independent rounding. • U.S. geographic coverage is the 50 states and the District

of Columbia.

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

and CSV files) for all available annual data Degriffing in 1973. Sources: • 1949–1954: U.S. Energy Information Administration (EIA) estimates based on Bureau of Mines, Minerals Yearbook, "Natural Gas" chapter. • 1955–1971: Federal Power Commission data. • 1972–1987: EIA, Form FPC-14, "Annual Report for Importers and Exporters of Natural Gas." • 1988–2010: EIA, Natural Gas Annual, annual reports. • 2011 forward: EIA, Natural Gas Monthly, April 2014, Tables 4 and 5; and U.S. Department of Energy, Office of Fossil Energy, "Natural Gas Imports and Exports."

**Natural Gas Consumption by Sector** Table 4.3

(Billion Cubic Feet)

(Dil	illori Cui	olc i eetj										
			T.		End-Use	Sectors						
					Industrial			Tr	ansportatio	n		
					Other Industri	al		Pipelinesd			Electric	
	Resi- dential	Com- mercial <sup>a</sup>	Lease and Plant Fuel	CHPb	Non-CHP <sup>C</sup>	Total	Total	and Dis- tribution <sup>e</sup>	Vehicle Fuel	Total	Power Sector <sup>f,g</sup>	Total
1950 Total	1,198	388	928	( h )	2,498	2,498	3,426	126	NA	126	629	5,767
1955 Total	2,124	629	1,131	}h {	3,411	3,411	4,542	245	NA	245	1,153	8,694
1960 Total 1965 Total	3,103 3.903	1,020 1,444	1,237 1,156	{ ¦¦ {	4,535 5,955	4,535 5,955	5,771 7,112	347 501	NA NA	347 501	1,725 2.321	11,967 15,280
1970 Total	4,837	2,399	1,399	}h{	7,851	7,851	9,249	722	NA	722	3,932	21,139
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 4.391	2,432 2.623	966 1,236	1.055	5,901 5,963	5,901 <sup>1</sup> 7,018	6,867 8,255	504 660	NA (a)	504 660	3,044 13,245	17,281 <sup>1</sup> 19,174
1990 Total 1995 Total	4,850	2,023 3,031	1,230	1,055	6,906	8,164	9,384	700	(s) 5	705	4,237	22,207
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 2004 Total	5,079 4,869	3,179 3,129	1,122 1,098	1,144 1,191	6,007 6,066	7,150 7,256	8,273 8,354	591 566	18 21	610 587	5,135 5,464	22,277 22,403
2005 Total	4,809	2,999	1,112	1.084	5,518	6,601	7.713	584	23	607	5.869	22,403
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	955 990	5,715	6,670	7,890	648	26	674	6,668	23,277
2009 Total 2010 Total	4,779 4.782	3,119 3.103	1,275 1,286	1.029	5,178 5.797	6,167 6.826	7,443 8.112	670 674	27 29	697 703	6,873 7.387	22,910 24.087
2011 Total	4,714	3,155	1,323	1,063	5,931	6,994	8,317	688	30	718	7,574	24,477
0040	794	440	404	. 04			700	70	•	00	0.40	0.757
2012 January February	794 662	446 387	121 111	94 89	571 534	666 623	786 734	79 72	3 2	82 74	649 645	2,757 2,502
March	403	262	119	91	517	608	727	60	3	63	674	2,129
April	279	209	114	90	489	579	693	55	2	58	714	1,953
May	163	149	118	95	481	576	694	53	3	55	812	1,874
June July	123 108	131 125	112 117	98 107	468 468	566 575	678 692	53 59	2	55 61	880 1,082	1,867 2,067
August	106	133	114	107	482	587	701	57	3	59	1.004	2.003
September	119	142	114	96	479	575	689	51	2	53	803	1,805
October	240	213	121	94	509	603	723	53	3	56	669	1,901
November	482	308 391	117 119	93 98	524	617 649	734 769	62	2	64	580 600	2,168
December Total	670 <b>4,149</b>	2,895	1,396	1,149	551 <b>6,075</b>	<b>7,224</b>	8, <b>620</b>	75 <b>728</b>	30	78 <b>758</b>	9,111	2,507 <b>25,533</b>
2013 January	880	478	E 117	102	577	678	795	E 82	E 3	E 85	629	2,867
February	756	428	E 107	91	535	626	733	E 73	E 3	E 75	565	2,558
March	669	393	E 118	98	559	657	775	E 72	E 3	E 74	601	2,512
April	369 194	247 168	E 115 E 120	90 93	513 503	603 597	718 716	E 56 E 50	E3	E 58 E 53	561 613	1,954 1,744
May June	129	136	E 116	93	473	566	681	E 49	E 3	E 52	734	1,744
July	113	136	E 121	97	488	585	706	E 55	E 3	E 57	906	1,918
August	109	137	E 121	98	495	594	715	E 55	E 3	E 57	898	1,916
September	119 225	142 207	E 116 E 121	91	485 522	576 615	693 737	E 50 E 53	E 3 E 3	E 53 E 56	749 636	1,756 1,861
October November	520	207 344	E 119	93 97	522 558	655	737 774	E 66	E 3	E 68	598	2,305
December	857	475	E 122	105	606	711	833	E 83	E 3	E 86	662	2,912
Total	4,940	3,290	E 1,413	1,147	6,316	7,463	8,876	E 742	E 33	E 775	8,153	26,035
2014 January		R 572	E 122	101	R 623	725	847	<u> </u> 92	E 3	E 95	662	R 3,216
February	859	489	E 111	88	574	663	773	E 79	E 3	E 81	554	2,757
2-Month Total	1,900	1,062	E 233	189	1,198	1,387	1,620	E 170	<sup>E</sup> 5	E 176	1,216	5,973
2013 2-Month Total 2012 2-Month Total	1,636 1,456	906 833	E 225 232	193 183	1,112 1,105	1,304 1,289	1,529 1,520	E 155 151	<sup>E</sup> 5 5	E 160 156	1,194 1,293	5,425 5,259

a All commercial sector fuel use, including that at commercial combined-heat-and-power (CHP) and commercial electricity-only plants. See Table 7.4c for CHP fuel use.
D Industrial combined-heat-and-power (CHP) and a small number of industrial electricities.

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

• See Note 8, "Natural Gas Data Adjustments, 1993–2000," at end of section.

• See Note 2, "Classification of Power Plants Into Energy-Use Sectors," at end of Section 7. • Through 1964, all volumes are shown on a pressure base of 14.65 psia (pounds per square inch absolute) at 60° Fahrenheit; beginning in 1965, the pressure base is 14.73 psia at 60° Fahrenheit. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia.

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

beginning in 1973.
Sources: • Residential, Commercial, Lease and Plant Fuel, Other Industrial Total and • Pipelines and Distribution: 1949–2007—U.S. Energy Information Administration (EIA), Natural Gas Annual (NGA), annual reports and unpublished revisions. 2008 forward—EIA, Natural Gas Monthly (NGM), April 2014, 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). 1999–2007—EIA, NGA, annual reports. 2008 forward—EIA, NGM, April 2014, Table 2. • Electric Power Sector: Table 7.4b.

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

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

A Natural gas consumed in the operation of pipelines, primarily in compressors. Beginning in 2009, includes line loss, which is known volumes of natural gas that are the result of leaks, damage, accidents, migration, and/or blow down.

Natural gas used as fuel in the delivery of natural gas to consumers. Beginning in 2009, includes line loss, which is known volumes of natural gas that are the result of leaks, damage, accidents, migration, and/or blow down.

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

Included in "Non-CHP."

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

Table 4.4 Natural Gas in Underground Storage

(Volumes in Billion Cubic Feet)

	U	Natural Gas in Inderground Storage End of Period	э,	From Sar	Vorking Gas ne Period us Year		Storage Activity	
	Base Gas	Working Gas	Totala	Volume	Percent	Withdrawals	Injections	Net <sup>b,c</sup>
1950 Total	NA	NA	NA	NA	NA	175	230	-54
955 Total	863	505	1,368	40	8.7	437	505	-68
960 Total	NA	NA	2,184	NA NA	NA.	713	844	-132
965 Total	1,848	1,242	3,090	83	7.2	960	1,078	-118
970 Total	2,326	1,678	4.004	257	18.1	1,459	1,857	-398
975 Total	3.162	2.212	5.374	162	7.9	1,760	2.104	-344
	3,642	2,212	6,297	-99	-3.6	1,910	1,896	-344 14
980 Total	3,842	2,607	6,448	-270	-3.6 -9.4	2,359		231
985 Total							2,128	
990 Total	3,868	3,068	6,936	555	22.1	1,934	2,433	-499
995 Total	4,349	2,153	6,503	-453	-17.4	2,974	2,566	408
000 Total	4,352	1,719	6,071	-806	-31.9	3,498	2,684	814
001 Total	4,301	2,904	7,204	1,185	68.9	2,309	3,464	-1,156
002 Total	4,340	2,375	6,715	-528	-18.2	3,138	2,670	468
003 Total	4,303	2,563	6,866	187	7.9	3,099	3,292	-193
004 Total	4,201	2,696	6,897	133	5.2	3,037	3,150	-113
005 Total	4,200	2,635	6,835	-61	-2.3	3,057	3,002	55
006 Total	4.211	3.070	7,281	435	16.5	2.493	2.924	-431
007 Total	4,234	2,879	7,113	-191	-6.2	3,325	3,133	192
2008 Total	4,232	2.840	7,073	-39	-1.4	3,374	3,340	34
009 Total	4,277	3,130	7.407	290	10.2	2,966	3,315	-349
010 Total	4,301	3,111	7,412	-19	6	3,274	3,291	-17
011 Total	4,302	3,462	7,764	351	11.3	3,074	3,422	-348
012 January	4,309	2,910	7,219	604	26.2	619	75	544
February	4,310	2,449	6,758	727	42.2	516	56	460
March	4,321	2,473	6,795	896	56.8	205	240	-35
April	4,325	2,611	6,936	823	46.0	126	264	-137
May	4,332	2,887	7,219	700	32.0	74	358	-284
June	4,338	3.115	7,454	586	23.2	91	323	-232
July	4,343	3,245	7,588	470	16.9	130	264	-134
August	4,348	3,406	7,754	387	12.8	134	300	-166
September	4,352	3,693	8,045	277	8.1	67	357	-290
	4,365	3,929	8,294	125	3.3	86	328	-242
October				-44		281		
November	4,372	3,799	8,172		-1.1		156	125
December	4,372	3,413	7,785	-49	-1.4	490	105	385
Total	4,372	3,413	7,785	-49	-1.4	2,818	2,825	-7
013 January	4,373	2,702	7,075	-208	-7.1	793	72	721
February	4,379	2,102	6,482	-347	-14.2	648	44	604
March	4,378	1,723	6,101	-750	-30.3	482	101	380
April	4,377	1,858	6,235	-754	-28.9	136	272	-136
May	4,381	2,271	6,652	-616	-21.3	49	467	-418
June	4,385	2,642	7,027	-473	-15.2	68	440	-372
July	4.365	2.937	7.302	-308	-9.5	98	373	-275
August	4,362	3,211	7,573	-196	-5.7	102	372	-270
September	4,363	3,565	7,928	-128	-3.5	66	421	-355
	4,365 4,365	3,505 3,816	7,928 8,180	-126 -114	-3.5 -2.9	85	340	-355 -255
October								
November	4,366	3,604	7,970	-195	-5.1	366	155	211
December Total	4,365 <b>4,365</b>	2,890 <b>2,890</b>	7,255 <b>7,255</b>	-523 <b>-523</b>	-15.3 <b>-15.3</b>	808 <b>3,700</b>	94 <b>3,151</b>	714 <b>549</b>
2014 January	4.363	1.926	6,289	-776	-28.7	1,034	68	967
February	4,359	1,199	5,558	-903	-43.0	828	102	726
2-Month Total						1,862	169	1,693
013 2-Month Total						1,440	116	1,325
012 2-Month Total						1,135	131	1,004

<sup>&</sup>lt;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.

NA=Not available.

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

Web Page: See http://www.eia.gov/totalenergy/data/monthly/#naturalgas (Excel

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

beginning in 1973.

Sources: • Storage Activity: 1949–1975—U.S. Energy Information Administration (EIA), Natural Gas Annual 1994, Volume 2, Table 9. 1976–1979—EIA, Natural Gas Production and Consumption 1979, Table 1. 1980–1995—EIA, Historical Natural Gas Annual 1930 Through 2000, Table 11. 1996–2007—EIA, Natural Gas Monthly (NGM), monthly issues. 2008 forward—EIA, NGM, April 2014, Table 8. • All Other Data: 1954–1974—American Gas Association, Gas Facts, annual issues. 1975 and 1976—Federal Energy Administration (FEA), Form FEA-G318-M-0, "Underground Gas Storage Report." 1977 and 1978—EIA, Form FEA-G318-M-0, "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." 1979—1995—EIA, Form EIA-191, "Underground Gas Storage Report." 1979—1995—EIA, Form FERC-8, "Underground Gas Storage Report." 1996–2007—EIA, NGM, monthly issues. 2008 forward—EIA, NGM, April 2014, Table 8.

Note 4, "Natural Gas Storage;" at end of section.

b For 1980–2012, data differ from those shown on Table 4.1, which includes invelied natural gas storage for that period.

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.

### **Natural Gas**

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

Data for the two most recent months presented are estimated. Some of the data for earlier months are also estimated or computed. For a discussion of computation and estimation procedures, see EIA's *Natural Gas Monthly (NGM)*.

Monthly data are considered preliminary until after publication of the NGA. Preliminary monthly data are gathered from reports to the Interstate Oil Compact Commission and the U.S. Minerals Management Service. Volumetric data are converted, as necessary, to a standard pressure base of 14.73 psia (pounds per square inch absolute) at 60° Fahrenheit. Unless there are major changes, data are not revised until after publication of the NGA.

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

**Note 2. Natural Gas Plant Liquids Production.** Natural gas plant liquids (NGPL) production is the reduction in volume of natural gas resulting from the removal of natural gas liquid constituents at natural gas processing plants—these natural gas plant liquids are transferred to petroleum supply.

Annual data are from EIA's *Natural Gas Annual (NGA)*, where they are estimated on the basis of the type and quantity of liquid products extracted from the gas stream and the calculated volume of such products at standard conditions. For a detailed explanation of the calculations used to derive estimated NGPL production, see the NGA.

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

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

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

Annual data beginning with 1980 are from EIA's *Natural Gas Annual (NGA)*. Unknown quantities of supplemental gaseous fuels are included in consumption data for 1979 and earlier years. Monthly data are considered preliminary until after publication of the NGA. Monthly estimates are based on the annual ratio of supplemental gaseous fuels to the sum of dry

gas production, net imports, and net withdrawals from storage. The ratio is applied to the monthly sum of the three elements to compute a monthly supplemental gaseous fuels figure.

Although the total amount of supplemental gaseous fuels consumed is known for 1980 forward, the amount consumed by each energy-use sector is estimated by EIA. These estimates are used to create natural gas (without supplemental gaseous fuels) data for Tables 1.3, 2.2, 2.3, 2.4, and 2.6 (note: to avoid double-counting in these tables, supplemental gaseous fuels are accounted for in their primary energy category: "Coal," "Petroleum," or "Biomass"). It is assumed that supplemental gaseous fuels are commingled with natural gas consumed by the residential, commercial, other industrial, and electric power sectors, but are not commingled with natural gas used for lease and plant fuel, pipelines and distribution, or vehicle fuel. The estimated consumption of supplemental gaseous fuels by each sector (residential, commercial, other industrial, and electric power) is calculated as that sector's natural gas consumption (see Table 4.3) divided by the sum of natural gas consumption by the residential, commercial, other industrial, and electric power sectors (see Table 4.3), and then multiplied by total supplemental gaseous fuels consumption (see Table 4.1). For estimated sectoral consumption of supplemental gaseous fuels in Btu, the residential, commercial, and other industrial values in cubic feet are multiplied by the "End-Use Sectors" conversion factors (see Table A4), and the electric power values in cubic feet are multiplied by the "Electric Power Sector" conversion factors (see Table A4). Total supplemental gaseous fuels consumption in Btu is calculated as the sum of the Btu values for the sectors.

**Note 4. Natural Gas Storage.** Natural gas in storage at the end of a reporting period may not equal the quantity derived by adding or subtracting net injections or withdrawals from the quantity in storage at the end of the previous period. Injection and withdrawal data from the FERC-8/EIA-191 survey may be adjusted to correspond to data from Form EIA-176 for publication of EIA's *Natural Gas Annual (NGA)*.

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

<b>1975</b> 6,280	<b>1989</b> 8,120	2003	8,206
<b>1976</b> 6,544	<b>1990</b> 7,794	2004	8,255
<b>1977</b> 6,678	<b>1991</b> 7,993	2005	8,268
<b>1978</b> 6,890	<b>1992</b> 7,932	2006	8,330
<b>1979</b> 6,929	<b>1993</b> 7,989	2007	8,402
<b>1980</b> 7,434	<b>1994</b> 8,043	2008	8,499
<b>1981</b> 7,805	<b>1995</b> 7,953	2009	8,656
<b>1982</b> 7,915	<b>1996</b> 7,980	2010	8,764
<b>1983</b> 7,985	<b>1997</b> 8,332	2011	8,849
<b>1984</b> 8,043	<b>1998</b> 8,179	2012	8,991
<b>1985</b> 8,087	<b>1999</b> 8,229	2013	P9,173
<b>1986</b> 8,145	<b>2000</b> 8,241		
<b>1987</b> 8,124	<b>2001</b> 8,182		
<b>1988</b> 8,124	<b>2002</b> 8,207		

P=Preliminary

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

The final monthly and annual storage and withdrawal data for 1980–2012 include both underground and liquefied natural gas (LNG) storage. Annual data on LNG additions and withdrawals are from Form EIA-176. Monthly data are estimated by computing the ratio of each month's underground storage additions and withdrawals to annual underground storage additions and withdrawals and applying the ratio to the annual LNG data.

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

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

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

Note 7. Natural Gas Consumption, 1989–1992. Prior to 1993, deliveries to nonutility generators were not separately collected from natural gas companies on Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition." As a result, for 1989–1992, those volumes are probably included in both the industrial and electric power sectors and double-counted in total

consumption. In 1993, 0.28 trillion cubic feet was reported as delivered to nonutility generators.

Note 8. Natural Gas Data Adjustments, 1993–2000. For 1993–2000, the original data for natural gas delivered to industrial consumers (now "Other Industrial" in Table 4.3) included deliveries to both industrial users and independent power producers (IPPs). These data were adjusted to remove the estimated consumption at IPPs from "Other Industrial" and include it with electric utilities under "Electric Power Sector." (To estimate the monthly IPP consumption, the monthly pattern for Other Industrial CHP in Table 4.3 was used.)

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

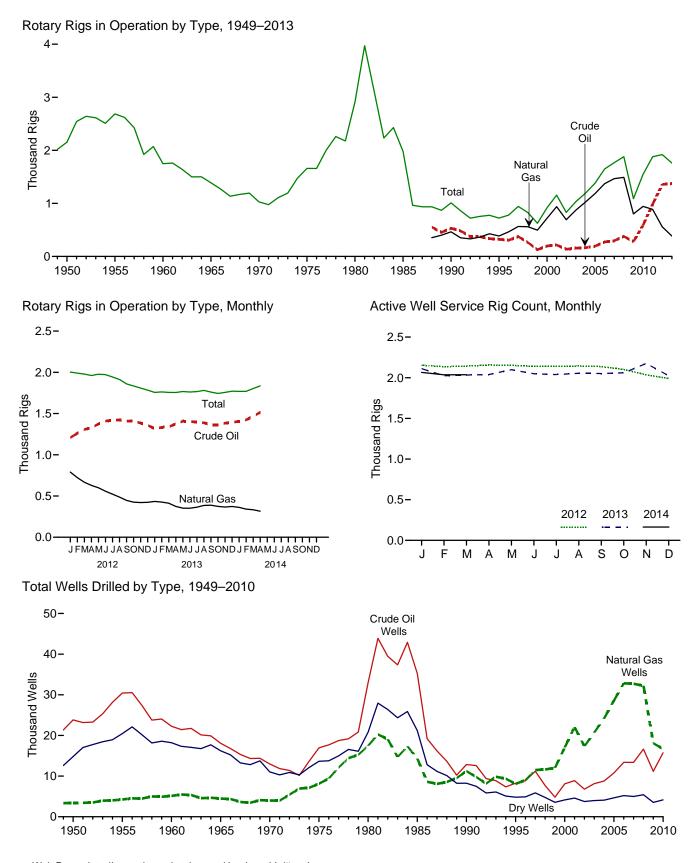
Note 9. Natural Gas Imports and Exports. The United States imports natural gas via pipeline from Canada and Mexico; and imports liquefied natural gas (LNG) via tanker from Algeria, Australia, Brunei, Egypt, Equatorial Guinea, Indonesia, Malaysia, Nigeria, Norway, Oman, Peru, Oatar, Trinidad and Tobago, the United Arab Emirates, and Yemen. In addition, very small amounts of LNG arrived from Canada in 1973 (667 million cubic feet), 1977 (572 million cubic feet), 1981 (6 million cubic feet), and 2013 (555 million cubic feet). The United States exports natural gas via pipeline to Canada and Mexico; and exports LNG via tanker to Brazil, China, Chile, India, Japan, Portugal, Russia, South Korea, Spain, and United Kingdom. Also, small amounts of LNG have gone to Mexico since 1998 and to Canada in 2007 and 2012–2014. Small amounts of compressed natural gas have been exported to Canada since 2013.

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

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

# 5. Crude Oil and Natural Gas Resource Development

Figure 5.1 Crude Oil and Natural Gas Resource Development Indicators



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)

		Ro	otary Rigs in Operation	n <sup>a</sup>		
	Ву	Site	Ву	Туре		Active
	Onshore	Offshore	Crude Oil	Natural Gas	Total <sup>b</sup>	Well Service Rig Count <sup>c</sup>
950 Average	NA	NA	NA	NA	2.154	NA
955 Average	NA	NA	NA	NA	2.686	NA
060 Average	NA	NA	NA	NA	1,748	NA
65 Average	NA	NA	NA.	ŇÁ	1,388	NA NA
70 Average	NA NA	NA NA	ŇÁ	NA NA	1.028	NA
75 Average	1,554	106	NA NA	NA NA	1,660	2,486
80 Average	2,678	231	NA	NA NA	2.909	4.089
85 Average	1.774	206	NA NA	NA NA	1.980	4,716
90 Average	902	108	532	464	1,010	3,658
	622	100	323	385	723	3,030
95 Average	778	140	197		723 918	
000 Average				720		2,692
01 Average	1,003	153	217	939	1,156	2,267
02 Average	717	113	137	691	830	1,830
03 Average	924	108	157	872	1,032	1,967
04 Average	1,095	97	165	1,025	1,192	2,064
005 Average	1,287	94	194	1,184	1,381	2,222
006 Average	1,559	90	274	1,372	1,649	2,364
007 Average	1,695	72	297	1,466	1,768	2,388
008 Average	1,814	65	379	1,491	1,879	2,515
009 Average	1,046	44	278	801	1,089	1,722
010 Average	1,514	31	591	943	1,546	1,854
011 Average	1,846	32	984	887	1,879	2,075
12 January	1,960	43	1,208	790	2,003	2,154
February	1,949	42	1,261	723	1,990	2,135
March	1,935	43	1,307	667	1,979	2,143
April	1,917	44	1,329	629	1,961	2,157
May	1,931	46	1,373	600	1,977	2,153
June	1,923	49	1,409	558	1,972	2,139
July	1.894	51	1.419	522	1.944	2.140
August	1.863	50	1.423	487	1,913	2.144
September	1.808	51	1,409	447	1.859	2.137
October	1,785	49	1,407	425	1,834	2.102
November	1.758	51	1.385	421	1.809	2.036
December	1,733	51	1,358	423	1,784	1.990
Average	1,871	48	1,357	558	1,919	2,113
113 January	1,704	52	1,318	434	1,756	2,112
February	1.708	54	1.332	426	1.762	2.024
March	1,705	51	1,339	413	1,756	2.033
April	1.707	49	1.374	374	1.755	2,039
May	1,715	52	1.407	353	1,767	2.099
June	1,706	55	1,404	352	1,761	2.049
July	1.708	58	1.396	364	1.766	2.039
August	1,720	61	1,388	386	1,781	2,055
September	1,695	65	1,364	389	1,760	2,052
October	1,683	61	1,364	374	1,744	2,052
	1,698	58	1,384	366	1,744	2,061
November	1,710	50 61	1,396	373	1,771	2,175
December Average	1,710 1,705	<b>56</b>	1,373	373 <b>383</b>	1,761	2,024 <b>2,064</b>
-	•		•		,	•
114 January	1,711	58	1,403	362	1,769	2,066
February	1,714	55	1,424	341	1,769	2,036
March	1,750	54	1,466	333	1,803	R 2,037
April	1,784	52	1,515	316	1,835	NA
4-Month Average	1,738	55	1,449	339	1,793	NA
13 4-Month Average	1.706	51	1,341	412	1.757	2.052

<sup>&</sup>lt;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. "Total" values may not equal the sum of "Onshore" and "Offshore" due to independent rounding.
<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.

R=Revised. NA=Not available.

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

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

Sources: • Rotary Rigs in Operation: Baker Hughes, Inc., Houston, TX, "North America Rig Count," used with permission. See http://phx.corporate-ir.net/phoenix.zhtml?c=79687&p=irol-reportsother. • 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-fdeda6d4aad6.

Table 5.2 Crude Oil and Natural Gas Exploratory and Development Wells

						Wells	Drilled						
		Exploi	ratory			Develo	pment			То	tal		Total
	Crude Oil	Natural Gas	Dry	Total	Crude Oil	Natural Gas	Dry	Total	Crude Oil	Natural Gas	Dry	Total	Footage Drilled
						Num	nber						Thousand Feet
1950 Total	1,583	431	8,292	10,306	22,229	3,008	6,507	31,744	23,812	3,439	14,799	42,050	157,358
1955 Total	2,236	874	11,832 9,515	14,942 11,704	28,196	3,392	8,620	40,208	30,432 22,258	4,266	20,452 18,212	55,150 45,619	226,182
1960 Total	1,321 946	868 515	9,515 8,005	9,466	20,937 17,119	4,281 3,967	8,697 8,221	33,915 29,307	22,258 18.065	5,149 4,482	16,212	38,773	192,176 174.882
1970 Total	757	477	6,162	7,396	12,211	3,534	4,869	20,614	12,968	4,011	11,031	28,010	138,556
1975 Total	982	1,248	7,129	9,359	15,966	6,879	6,517	29,362	16,948	8,127	13,646	38,721	180,494
1980 Total	1,777	2,099	9,081	12,957	31,182	15,362	11,704	58,248	32,959	17,461	20,785	71,205	316,943
1985 Total	1,680	1,200	8,954	11,834	33,581	13,124	12,257	58,962	35,261	14,324	21,211	70,796	314,409
1990 Total	778 570	811 558	3,652 2.024	5,241 3,152	12,061 7,678	10,435 7,524	4,593 2.790	27,089 17,992	12,839 8,248	11,246 8,082	8,245 4.814	32,330 21,144	156,044 117,156
2000 Total	288	657	1,341	2,286	7,802	16,394	2,805	27,001	8.090	17,051	4,146	29,287	144,425
2001 Total	357	1,052	1,733	3,142	8,531	21,020	2,865	32,416	8,888	22,072	4,598	35,558	180,141
2002 Total	258	844	1,282	2,384	6,517	16,498	2,472	25,487	6,775	17,342	3,754	27,871	145,159
2003 Total	350	997	1,297	2,644	7,779	19,725	2,685	30,189	8,129	20,722	3,982	32,833	177,239
2004 Total	383 539	1,671	1,350	3,404 4,142	8,406 10,240	22,515	2,732	33,653 39,880	8,789 10,779	24,186 28,590	4,082	37,057 44,022	204,279 240,307
2005 Total	646	2,141 2.456	1,462 1.547	4,142	12,739	26,449 30.382	3,191 3.659	46.780	13.385	32.838	4,653 5,206	51.429	282.675
2007 Total	808	2,794	1,582	5,184	12,563	29,925	3,399	45,887	13,371	32,719	4,981	51,071	301,515
2008 January	88	208	144	440	1,111	2,321	272	3,704	1,199	2,529	416	4,144	25,306
February	82	230	107	419	1,080	2,261	247	3,588	1,162	2,491	354	4,007	24,958
March April	66 68	216 189	127 130	409 387	1,132 1,177	2,363 2,415	271 281	3,766 3,873	1,198 1,245	2,579 2,604	398 411	4,175 4,260	26,226 26,920
May	88	206	124	418	1,177	2,413	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 80	166 243	164	382 496	1,488	2,667	355 373	4,510	1,540	2,833 3.084	519 546	4,892	28,960 31.505
October November	97	192	173 160	496	1,549 1,361	2,841 2.418	334	4,763 4,113	1,629 1,458	2,610	494	5,259 4,562	29,276
December	67	172	132	371	1,206	2,410	313	3,715	1,273	2,368	445	4.086	26,222
Total	897	2,345	1,715	4,957	15,736	29,901	3,708	49,345	16,633	32,246	5,423	54,302	334,141
2009 January	80	171	99	350	1,192	2,253	250	3,695	1,272	2,424	349	4,045	28,077
February March	62 59	125 146	88 88	275 293	991 867	1,925 1,771	195 210	3,111 2,848	1,053 926	2,050 1,917	283 298	3,386 3,141	25,440 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 61	84 71	88 96	221 228	867 945	1,372 1,170	207 207	2,446 2,322	916 1,006	1,456 1,241	295 303	2,667 2,550	15,970 15,547
September October	55	71	78	212	966	1,170	222	2,355	1,000	1,241	300	2,567	17,261
November	38	83	85	206	931	1,133	199	2,263	969	1,216	284	2,469	16,236
December	34	98	84	216	894	1,074	213	2,181	928	1,172	297	2,397	16,424
Total	605	1,206	1,055	2,866	10,585	16,882	2,470	29,937	11,190	18,088	3,525	32,803	231,562
2010 January February	55 44	91 71	81 67	227 182	898 871	1,264 1.096	169 144	2,331 2,111	953 915	1,355 1.167	250 211	2,558 2,293	15,304 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	254 254	1,386	1,443 1,402	390	3,219	1,432 1,490	1,546	495 408	3,473 3,404	20,847 22,923
August September	56 57	104 73	94 88	254 218	1,434 1,374	1,402 1,358	314 268	3,150 3,000	1,490 1,431	1,506 1,431	408 356	3,404	22,923
October	75	87	117	279	1,502	1,463	283	3,248	1,577	1,550	400	3,527	22,123
November	62	114	103	279	1,400	1,352	263	3,015	1,462	1,466	366	3,294	24,561
December	57	92	70	219	1,317	1,379	243	2,939	1,374	1,471	313	3,158	23,189
Total	669	1,105	1,066	2,840	15,084	15,591	3,096	33,771	15,753	16,696	4,162	36,611	239,247

Notes: • Data are estimates. • For 1960–1969, data are for well completion reports received by the American Petroleum Institute during the reporting year; for all other years, data are for well completions in a given year. • Through 1989, these well counts include only the original drilling of a hole intended to discover or further develop already discovered crude oil or natural gas resources. Other drilling activities, such as drilling an old well deeper, drilling of laterals from the original well, drilling of service and injection wells, and drilling for resources other than crude oil or natural gas are excluded. Beginning in 1990, a new well is defined as the first hole in the ground whether it is lateral or not. Due to the methodology used to estimate ultimate well counts from the available partially reported data, the counts shown on this page are frequently revised. See Note, "Crude Oil and

Natural Gas Exploratory and Development Wells," at end of section.  $\bullet$  Geographic coverage is the 50 states and the District of Columbia.

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

beginning in 1973.
Sources:

1949–1965: Gulf Publishing Company, World Oil, "Forecast-Review" issue.

1966–1969: American Petroleum Institute (API), Quarterly Review of Drilling Statistics for the United States, annual summaries and monthly reports.

1970–1989: U.S. Energy Information Administration (EIA) computations based on well reports submitted to the API.

1990 forward: EIA computations based on well reports submitted to the API.

1990 forward: EIA

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

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

**Note.** Crude Oil and Natural Gas Exploratory and Development Wells. Three well types are considered in the *Monthly Energy Review* (*MER*) drilling statistics: "completed for crude oil," "completed for natural gas," and "dry hole." Wells that productively encounter both crude oil and natural gas are categorized as "completed for crude oil." Both development wells and exploratory wells (new field wildcats, new pool tests, and extension tests) are included in the statistics. All other classes of wells drilled in connection with the search for producible hydrocarbons are excluded. If a lateral is drilled at the same time as the original hole it is not counted separately, but its footage is included.

Prior to the March 1985 MER, drilling statistics consisted of

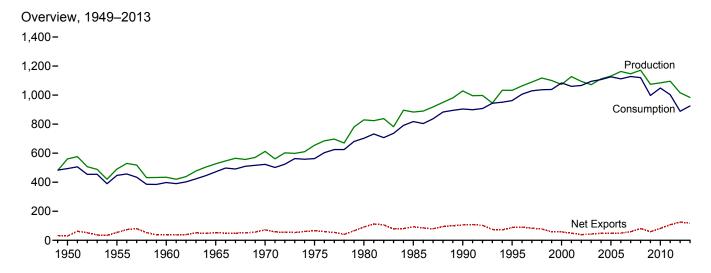
completion data for the above types and classes of wells as reported to the American Petroleum Institute (API) during a given month. Due to time lags between the date of well completion and the date of completion reporting to the API, as-reported well completions proved to be an inaccurate indicator of drilling activity. During 1982, for example, as-reported well completions rose, while the number of actual completions fell. Consequently, the drilling statistics published since the March 1985 MER are U.S. Energy Information Administration (EIA) estimates produced by statistically imputing well counts and footage based on the partial data available from the API. These estimates are subject to continuous revision as new data, some of which pertain to earlier months and years, become available. Additional information about the EIA estimation methodology may be found in "Estimating Well Completions," a feature article published in the March 1985 MER.

THIS PAGE INTENTIONALLY LEFT BLANK

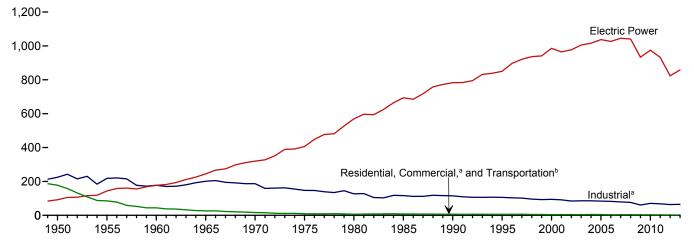
# 6. Coal

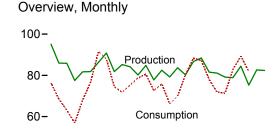
Figure 6.1 Coal

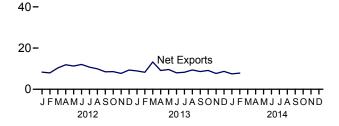
(Million Short Tons)



### Consumption by Sector, 1949-2013



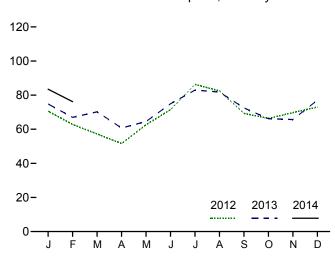




<sup>a</sup>Includes combined-heat-and-power (CHP) plants and a small number of electricity-only-plants.

<sup>b</sup>For 1978 forward, small amounts of transportation sector use are included in "Industrial."

### Electric Power Sector Consumption, Monthly



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

**Table 6.1 Coal Overview** 

(Thousand Short Tons)

		Waste Coal		Trade		Stock	Losses and Unaccounted	
	Production <sup>a</sup>	Supplied <sup>b</sup>	Imports	Exports	Net Imports <sup>c</sup>	Change <sup>d,e</sup>	for <sup>e,f</sup>	Consumption
950 Total	560,388	NA	365	29.360	-28.995	27.829	9.462	494,102
955 Total	490,838	NA	337	54,429	-54,092	-3,974	-6,292	447,012
960 Total	434,329	NA	262	37,981	-37,719	-3,194	1,722	398,081
965 Total	526,954	NA	184	51,032	-50,848	1,897	2,244	471,965
970 Total	612,661	NA	36	71,733	-71,697	11,100	6,633	523,231
975 Total	654,641	NA	940	66,309	-65,369	32,154	-5,522	562,640
980 Total	829.700	NA NA	1.194	91,742	-90,548	25,595	10.827	702,730
985 Total	883.638	NA NA	1.952	92,680	-90,727	-27,934	2.796	818.049
990 Total	1,029,076	3.339	2,699	105,804	-103,104	26,542	-1,730	904,498
995 Total	1,032,974	8,561	9,473	88,547	-79.074	-275	632	962.104
000 Total	1,073,612	9,089	12,513	58,489	-75,074 -45,976	-48,309	938	1,084,095
001 Total	1,127,689	10,085	19,787	48,666	-28,879	41,630	7,120	1,060,146
002 Total	1,094,283	9,052	16,875	39,601	-22,726	10,215	4,040	1,066,355
003 Total	1,071,753	10,016	25,044	43,014	-17,970	-26,659	-4,403	1,094,861
004 Total	1,112,099	11,299	27,280	47,998	-20,718	-11,462	6,887	1,107,255
005 Total	1,131,498	13,352	30,460	49,942	-19,482	-9,702	9,092	1,125,978
006 Total	1,162,750	14,409	36,246	49,647	-13,401	42,642	8,824	1,112,292
007 Total	1,146,635	14,076	36,347	59,163	-22,816	5,812	4,085	1,127,998
008 Total	1.171.809	14,146	34,208	81,519	-47,311	12,354	5.740	1,120,548
009 Total	1.074.923	13,666	22,639	59,097	-36.458	39,668	14,985	997,478
010 Total	1,084,368	13,651	19,353	81,716	-62,363	-13,039	182	1,048,514
011 Total	1,095,628	13,209	13,088	107,259	-94,171	211	11,506	1,002,948
012 January	95,102	1,104	789	9,126	-8,337	3,832	7,745	76,292
February	85,914	926	534	8,460	-7,927	7,905	2,542	68,466
March	85,849	863	699	11,055	-10.356	9,618	3,663	63,075
April	77.514	681	623	12,529	-11,905	7.132	2.260	56,899
May	81,717	892	986	12,257	-11,271	419	2,905	68,015
June	81.816	926	719	12,749	-12.030	-5.461	-469	76.642
	86,321	1,058	894	11,623	-10,729	-15,082	145	91,588
July		1,039			-9.930	-6.905	912	
August	90,816		667	10,597				87,919
September	81,818	885	855	9,344	-8,489	2,352	-2,615	74,477
October	85,239	796	868	9,421	-8,554	3,999	1,709	71,774
November	84,147	1,090	798	8,516	-7,718	1,639	562	75,319
December	80,205	934	727	10,068	-9,341	-2,545	-4,377	78,721
Total	1,016,458	11,196	9,159	125,746	-116,586	6,902	14,980	889,185
013 January	84,828	933	654	9,572	-8,917	-8,189	4,461	80,571
February	77,766	869	385	8,627	-8,242	-6,262	4,121	72,535
March	82,464	1,063	390	13,637	-13,247	-5,516	-141	75,936
April	79,207	676	672	9,754	-9,082	2,486	2,190	66,125
May	83,664	940	870	10,478	-9,608	5,308	-320	70,008
June	80,234	934	1,213	9,194	-7,981	-7,412	265	80,335
July	86,674	1,040	874	9,125	-8,251	-9,336	455	88,344
August	88.436	840	710	10.073	-9.363	-7.765	446	87.231
September	81,547	608	815	9,391	-8,576	-2.482	-1.858	77,919
October	81.067	626	707	9.855	-9.148	672	-31	71,905
November	79.154	618	850	8.511	-7.662	2.376	-1.654	71,388
December	79,154 78.922	1.047	766	9,443	-7,002 -8,676	-5,268	-6,249	82,810
Total	983,964	10,194	8, <b>906</b>	117,659	-108,753	-41,386	1,684	925,106
014 January	84.476	F 1.063	1.064	8,516	-7.452	-15.889	4.640	89,335
		RF 856	RF 939	R 8.785	-7,432 RE -7,846	R -14,264	R 757	R 81,776
February	75,258							
March	82,628	NA	NA	NA	NA	NA	NA	NA
April	82,366	NA	NA	NA	NA	NA	NA	NA
4-Month Total	324,728	NA	NA	NA	NA	NA	NA	NA
013 4-Month Total	324.265	3.541	2.101	41.590	-39,488	-17.480	10.632	295.167

quantities lost or to data reporting problems.

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

Notes: • For methodology used to calculate production, consumption, and stocks, see Note 1, "Coal Production," Note 2, "Coal Consumption," and Note 3, "Coal Stocks," at end of section. • Data values preceded by "F" are derived from the U.S. Energy Information Administration's Short-Term Integrated Forecasting System. See Note 4, "Coal Forecast Values," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia.

Web Page: See http://www.eia.gov/totalenergy/data/monthly/#coal (Excel and

Web Page: See http://www.eia.gov/totalenergy/data/monthly/#coal (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973. Sources: See end of section.

<sup>&</sup>lt;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

greater than imports.

<sup>d</sup> A negative value indicates a decrease in stocks and a positive value indicates

an increase. See Table 6.3 for stocks data coverage.

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

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

Table 6.2 Coal Consumption by Sector

(Thousand Short Tons)

					End-U	Jse Sector	s					
			Commerci	al			Industrial					
						c	ther Industria	al		1 <u> </u>	Electric	
	Resi- dential	СНРа	Otherb	Total	Coke Plants	CHPc	Non-CHP <sup>d</sup>	Total	Total	Trans- portation	Power Sector <sup>e,f</sup>	Total
1950 Total	51,562	( <sup>g</sup> )	63,021	63,021	104,014	(h)	120,623	120,623	224,637	63,011	91,871	494,102
1955 Total	35,590	(g)	32,852	32,852	107,743	(h)	110,096	110,096	217,839	16,972	143,759	447,012
1960 Total	24,159	(g)	16,789	16,789	81,385	(h)	96,017	96,017	177,402	3,046	176,685	398,081
1965 Total	14,635	(g)	11,041	11,041	95,286	(h)	105,560	105,560	200,846	655	244,788	471,965
1970 Total	9,024	(g)	7,090	7,090	96,481	(h)	90,156	90,156	186,637	298	320,182	523,231
1975 Total	2,823	(g)	6,587	6,587	83,598	(h)	63,646	63,646	147,244	24	405,962	562,640
1980 Total	1,355	(g)	5,097	5,097	66,657		60,347	60,347	127,004	(h)	569,274	702,730
1985 Total	1,711	(g)	6,068	6,068	41,056	(h)	75,372	75,372	116,429	(")	693,841	818,049
1990 Total	1,345	1,191	4,189	5,379	38,877	27,781	48,549	76,330	115,207	(")	f 782,567	904,498
1995 Total	755 454	1,419	3,633	5,052	33,011	29,363	43,693 37,177	73,055	106,067 94,147	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	850,230	962,104
2000 Total 2001 Total	454 481	1,547 1,448	2,126 2,441	3,673 3,888	28,939 26,075	28,031 25,755	37,177 39,514	65,208 65,268	94,147	\n\	985,821 964,433	1,084,095 1,060,146
2002 Total	533	1,446	2,441	3,000 3,912	23,656	26,232	39,514	60,747	84,403	\n\	977,507	1,066,355
2003 Total	551	1,816	1,869	3,685	24,248	24,846	36,415	61,261	85,509	} h {	1,005,116	1,094,861
2004 Total	512	1,917	2,693	4,610	23,670	26,613	35,582	62,195	85,865	}h{	1,016,268	1,107,255
2005 Total	378	1,922	2,420	4,342	23,434	25,875	34,465	60,340	83,774	}h;	1,037,485	1,125,978
2006 Total	290	1,886	1,050	2,936	22,957	25,262	34,210	59,472	82,429	ìh;	1,026,636	1,112,292
2007 Total	353	1,927	1,247	3,173	22,715	22,537	34,078	56,615	79,331	(h)	1,045,141	1,127,998
2008 Total	(!)	2,021	1,485	3,506	22,070	21,902	32,491	54,393	76,463	(h)	1,040,580	1,120,548
2009 Total	(!)	1,798	1,412	3,210	15,326	19,766	25,549	45,314	60,641	(h)	933,627	997,478
2010 Total	(!)	1,720	1,361	3,081	21,092	24,638	24,650	49,289	70,381	( h )	975,052	1,048,514
2011 Total	(1)	1,668	1,125	2,793	21,434	22,319	23,919	46,238	67,671	( h )	932,484	1,002,948
<b>2012</b> January	( <u>i</u> )	155	100	256	1,701	2,015	1,726	3,741	5,442	( h )	70,594	76,292
February	(¦)	135	87	222	1,687	1,832	1,921	3,753	5,440	( '' )	62,804	68,466
March	( i ) ( i ) ( i )	128	82	210	1,895	1,684	2,020	3,704	5,599	\ h \	57,266	63,075
April	(;)	102 108	30 32	132	1,783	1,481	1,910	3,391	5,173	( ii )	51,593	56,899
May	(;)	108	32	141 141	1,857 1,657	1,563 1,553	1,807 1,811	3,370 3,365	5,226 5,021	( ii )	62,648 71,480	68,015 76,642
June	( ; )	120	16	136	1,657	1,712	1,781	3,493	5,021	( n )	86,283	91,588
July	\;\	120	16	136	1,816	1,712	1,781	3,483	5,169	( ii )	82,484	87,919
August September	} i {	107	14	121	1,552	1,703	1,760	3,495	5,299	} h {	69,309	74,477
October	} i {	101	51	152	1,647	1,587	2,045	3,632	5,279	} h {	66,343	71,774
November	} i {	124	62	186	1,715	1,649	2,030	3,679	5,393	}h {	69,740	75,319
December	λi (	141	71	212	1,766	1,751	1.982	3,734	5,500	}h {	73,009	78,721
Total	( i j	1,450	595	2,045	20,751	20,065	22,773	42,838	63,589	(h)	823,551	889,185
<b>2013</b> January	( i )	148	89	237	1,825	1,728	1,983	3,711	5,536	( h )	74,798	80,571
February	}¦{	139	84	223	1,644	1,601	2,121	3,722	5,367	( h )	66,944	72,535
March		136	82	219	1,810	1,716	1,978	3,693	5,504	( h )	70,214	75,936
April	( ; (	108	23	132	1,817	1,533	1,918	3,451	5,268	(h)	60,725	66,125
May	(   )	114	24	138	1,868	1,577	1,881	3,459	5,326	( h )	64,544	70,008
June		105	22	128	1,787	1,576	1,879	3,455	5,242	( '' )	74,964	80,335
July	(;)	103	16 16	119	1,756	1,656	1,827	3,483	5,239	( '' )	82,986	88,344
August	(!)	105 100	16 15	121 115	1,836 1,836	1,594	1,892 1,929	3,486 3,475	5,323 5,311	( ii )	81,788 72,493	87,231 77,919
September October	\ i\	98	47	145	1,836	1,545 1,647	1,929 2,142	3,475 3,789	5,511	{ i }	66,163	77,919
November	(;)	120	57	177	1,737	1,647	2,142	3,787	5,523	( n )	65,688	71,388
December	} i {	134	64	198	1,750	1,760	2,059	3,819	5,569	}h {	77,043	82,810
Total	( i )	1,412	539	1,951	21,474	19,613	23,717	43,331	64,805	(h)	858,351	925,106
2014 January	( <u>i</u> )	149	F 137	F 286	<sup>F</sup> 1,702	1,803	F 2,085	F 3,888	<sup>F</sup> 5,590	( h )	83,459	89,335
February	( <u>i</u> (	147	F 144	F 292	F 1,663	1,644	F 2,033	F 3,677	F 5,340	( h )	76,144	81,776
2-Month Total	( i )	296	F 282	F 578	F 3,366	3,447	F 4,117	F 7,565	F 10,931	( h )	159,603	171,111
2013 2-Month Total 2012 2-Month Total	( i )	287 290	173 187	460 478	3,470 3,388	3,329 3,847	4,104 3,647	7,433 7,494	10,903 10,882	( <sup>h</sup> ) ( <sup>h</sup> )	141,743 133,398	153,106 144,758

<sup>&</sup>lt;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 2, "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."

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 2, "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 electric utilities only. Beginning in 1989, data are for electric utilities and independent power producers.

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

h Included in "Industrial Non-CHP."

Beginning in 2008, residential coal consumption data are no longer collected by the U.S. Energy Information Administration (EIA).

F=Forecast.

F=Forecast.

Notes: • CHP monthly values are from Table 7.4c; electric power sector monthly values are from Table 7.4b; all other monthly values are estimates derived from collected quarterly and annual data. See Note 2, "Coal Consumption," at end of section. • Data values preceded by "F" are derived from ElA's Short-Term Integrated Forecasting System. See Note 4, "Coal Forecast Values," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia. Web Page: See http://www.eia.gov/totalenergy/data/monthly/#coal (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973. Sources: See end of section.

Table 6.3 Coal Stocks by Sector

(Thousand Short Tons)

1950 Year					E	nd-Use Sectors				
Distributors   Commercial   Coke Plants   Otherb   Total   Total						Industrial			Electric	
955 Year NA 998 13,422 15,880 29,302 30,33 960 Year NA 666 11,122 11,637 22,759 23,42 965 Year NA 353 10,640 13,122 23,762 24,11 975 Year 12,108 233 8,797 8,529 11,781 20,826 21,12 985 Year 33,4318 NA 3,420 10,438 13,857 13,85 990 Year 33,418 NA 3,420 10,438 13,857 13,85 990 Year 33,418 NA 3,420 10,438 13,857 13,85 990 Year 33,418 NA 3,420 10,438 13,857 6,081 6,000 10 Year 31,905 NA 1,494 4,587 6,081 6,000 10 Year 35,900 NA 1,510 6,006 7,516 7,516 002 Year 43,257 NA 1,364 5,792 7,156 7,516 002 Year 43,257 NA 1,364 5,792 7,156 7,516 003 Year 43,257 NA 1,364 5,792 7,156 7,516 005 Year 34,4151 NA 1,344 4,842 6,186 6,186 6,18 6,005 Year 34,971 NA 2,615 5,582 8,196 8,19 6005 Year 34,971 NA 2,615 5,582 8,196 8,19 6006 Year 33,977 NA 1,364 5,523 5,62 8,196 8,19 6006 Year 34,688 NA 2,928 6,506 9,434 9,43 607 Year 33,977 NA 1,395 5,624 7,560 7,56 007 Year 34,688 498 2,331 6,007 8,338 8,83 009 Year 47,718 529 1,957 5,109 7,066 7,58 100 Year 49,820 552 1,955 5,109 7,066 7,58 101 Year 49,820 552 1,925 4,525 6,451 7,005 10 Year 49,830 5,624 7,560 7,56 603 2,610 4,455 7,065 7,065 7,56 7,66 7,57 1,57 1,57 1,57 1,57 1,57 1,57 1,57					Coke Plants	Otherb	Total	Total	Power Sector <sup>c,d</sup>	Total
955 Year NA 998 13,422 15,880 29,302 30,36   606 Vear NA 666 11,122 11,637 22,759 23,42   605 Year NA 353 10,640 13,122 23,762 24,11   707 Year NA 300 9,045 11,781 20,826 21,12   707 Year 12,108 233 8,797 8,529 11,781 20,826 21,12   707 Year 24,379 NA 9,067 11,951 21,018 21,01   825 Year 33,133 NA 3,420 10,438 13,857 13,85   836 Year 33,148 NA 3,229 8,716 12,044 12,04   1990 Year 33,418 NA 3,329 8,716 12,044 12,04   1990 Year 34,444 NA 2,632 5,702 8,334 8,33   1000 Year 31,905 NA 1,494 4,587 6,081 6,08   1001 Year 35,900 NA 1,510 6,006 7,516 7,51   1002 Year 43,257 NA 1,364 5,792 7,156 7,15   1002 Year 33,277 NA 905 4,718 5,623 5,62   1003 Year 34,971 NA 1,344 4,842 6,186 6,18   1005 Year 34,971 NA 2,615 5,582 8,196 8,19   1006 Year 34,688 NA 2,928 6,506 9,434 9,43   1007 Year 33,977 NA 1,936 5,524 7,560 7,56   1008 Year 34,688 NA 2,928 6,506 9,434 9,43   1009 Year 34,688 NA 2,928 6,506 7,54   1009 Year 34,688 NA 2,928 6,506 7,54   1009 Year 34,688 NA 1,936 5,524 7,560 7,56   1012 January 48,318 587 2,507 4,280 6,786 7,33   110 Year 49,820 552 1,957 5,109 7,066 7,58   1012 January 48,318 587 2,507 4,280 6,786 7,37   1014 Year 51,897 603 2,610 4,455 7,065 7,065   1012 January 48,318 587 2,507 4,280 6,786 7,37   1014 Year 51,897 603 2,610 4,455 7,065 7,065   1012 January 48,318 587 2,507 4,280 6,786 7,37   1014 Narch 51,141 557 2,300 3,929 6,229 6,78   1019 Narch 51,283 566 2,299 4,025 6,324 6,88   1019 Narch 51,141 557 2,300 3,929 6,229 6,78   1019 Narch 51,283 566 2,299 4,018 6,647 7,22   1019 Narch 51,283 566 2,299 4,025 6,324 6,88   1019 Narch 51,141 557 2,300 3,929 6,229 6,78   1019 Narch 51,141 557 5,300 5,300 6,300 6,300 6,300 6,300 6,30	NA	Year	NA	2,462	16,809	26,182	42,991	45,453	31,842	77,29
185 Year         NA         353         10,640         13,122         23,762         24,117           Y70 Year         NA         300         9,045         11,781         20,826         21,112           175 Year         12,108         233         8,797         8,529         17,326         17,558           180 Year         33,418         NA         9,067         11,951         21,018         21,018           190 Year         33,418         NA         3,329         8,716         12,044         12,044           190 Year         34,444         NA         2,632         5,702         8,334         8,33           190 Year         31,905         NA         1,494         4,587         6,081         6,08           100 Year         35,900         NA         1,510         6,006         7,516         7,15           102 Year         43,257         NA         1,364         5,792         7,156         7,15           102 Year         41,151         NA         1,344         4,842         6,18         6,18           105 Year         34,971         NA         2,615         5,582         8,196         8,18           105 Year         34,6	NA		NA	998	13,422	15,880		30,300	41,391	71,69
NA   300   9,045   11,781   20,826   21,12   17,575   1	NA	Year	NA	666	11,122	11,637	22,759	23,425	51,735	75,16
175   Year	NA	Year	NA	353	10,640	13,122	23,762	24,115	54,525	78,64
880 Year         24 379         NA         9,067         11,951         21,018         21,018           885 Year         33,133         NA         3,420         10,438         13,857         13,857           1995 Year         33,418         NA         3,329         8,716         12,044         12,04           1995 Year         34,444         NA         2,652         5,702         8,334         8,33           100 Year         35,900         NA         1,510         6,006         7,516         7,51           102 Year         43,257         NA         1,364         5,792         7,156         7,51           103 Year         38,277         NA         905         4,718         5,623         5,62           103 Year         34,971         NA         1,344         4,842         6,186         6,18           105 Year         36,548         NA         2,928         6,506         9,434         9,43           106 Year         34,688         498         2,331         6,007         8,338         8,83           107 Year         34,688         498         2,331         6,007         8,338         8,83           109 Year         47,71	NA	Year	NA	300	9,045	11,781	20,826	21,126	71,908	93,03
185 Year	2,10	Year	12,108	233	8,797	8,529	17,326	17,559	110,724	140,39
190 Year	24,37	Year	24,379	NA	9,067	11,951	21,018	21,018	183,010	228,40
195 Year	3,13	Year	33,133	NA	3,420	10,438	13,857	13,857	156,376	203,36
100 Year	3,41	Year	33,418	NA	3,329	8,716	12,044	12,044	156,166	201,629
101 Year         35,900         NA         1,510         6,006         7,516         7,516         7,516         7,516         7,516         7,516         7,516         7,516         7,516         7,516         7,516         7,516         7,515         7,156         7,516         7,158         5,624         4,146         6,186         6,181         8,196         8,118         8,190         7,067         8,338         8,338         8,338         8,338         8,833         8,833         8,009         7,076         7,560         7,566         7,596         7,596         7,506         7,596         7,596         7,506         7,596         7,506         7,506         7,596         7,066         7,596         7,506         7,506         7,506         7,506         7,506         7,506         7,506         7,506         7,506         7,506         7,506 <t< td=""><td></td><td>Year</td><td></td><td>NA</td><td></td><td>5,702</td><td>8,334</td><td>8,334</td><td>126,304</td><td>169,08</td></t<>		Year		NA		5,702	8,334	8,334	126,304	169,08
102   Year	1,90	Year	31,905	NA	1,494	4,587	6,081	6,081	<sup>d</sup> 102,296	140,28
103 Year         38,277         NA         905         4,718         5,623         5,62           104 Year         41,151         NA         1,344         4,842         6,186         6,18           105 Year         34,971         NA         2,615         5,582         8,196         8,19           106 Year         36,548         NA         2,928         6,506         9,434         9,43           107 Year         33,3977         NA         1,936         5,624         7,560         7,56           108 Year         34,688         498         2,331         6,007         8,338         8,83           109 Year         47,718         529         1,957         5,109         7,066         7,59           101 Year         49,820         552         1,925         4,525         6,451         7,06           111 Year         51,897         603         2,507         4,280         6,786         7,37           February         48,318         587         2,507         4,280         6,786         7,37           February         49,743         572         2,403         4,104         6,508         7,08           March         51,411	5,90	Year	35,900	NA	1,510	6,006	7,516	7,516	138,496	181,91
104 Year         41,151         NA         1,344         4,842         6,186         6,18           105 Year         34,971         NA         2,615         5,582         8,196         8,19           106 Year         36,548         NA         2,928         6,506         9,434         9,43           107 Year         33,977         NA         1,936         5,624         7,560         7,56           108 Year         34,688         498         2,331         6,007         8,338         8,33           109 Year         47,718         529         1,957         5,109         7,066         7,59           101 Year         49,820         552         1,925         4,525         6,451         7,00           101 Year         51,897         603         2,610         4,455         7,065         7,66           101 Year         49,820         552         1,925         4,525         6,451         7,00           101 Year         48,318         587         2,507         4,280         6,786         7,37           February         49,743         572         2,403         4,104         6,508         7,08           March         51,283	3,25		43,257	NA	1,364	5,792	7,156	7,156	141,714	192,127
005 Year         34,971         NA         2,615         5,582         8,196         8,19           006 Year         36,548         NA         2,928         6,506         9,434         9,43           007 Year         33,977         NA         1,936         5,624         7,560         7,56           008 Year         34,688         498         2,331         6,007         8,338         8,83           009 Year         47,718         529         1,957         5,109         7,066         7,59           1010 Year         49,820         552         1,925         4,525         6,451         7,06           011 Year         51,897         603         2,610         4,455         7,065         7,66           012 January         48,318         587         2,507         4,280         6,786         7,37           February         49,743         572         2,403         4,104         6,508         7,06           March         51,141         557         2,300         3,929         6,229         6,78           April         51,283         566         2,299         4,025         6,324         6,89           May         50,374	8,27	Year	38,277	NA	905	4,718	5,623	5,623	121,567	165,46
206 Year         36,548         NA         2,928         6,506         9,434         9,43           207 Year         33,977         NA         1,936         5,624         7,560         7,56           208 Year         34,688         498         2,331         6,007         8,338         8,83           209 Year         47,718         529         1,957         5,109         7,066         7,59           210 Year         49,820         552         1,925         4,525         6,451         7,006           212 January         48,318         587         2,507         4,280         6,786         7,37           February         49,743         572         2,403         4,104         6,508         7,06           April         51,1241         557         2,300         3,929         6,229         6,78           April         51,283         566         2,299         4,025         6,324         6,89           May         50,726         575         2,297         4,122         6,419         6,99           July         49,120         589         2,329         4,318         6,647         7,23           August         47,499	1,15	Year	41,151	NA	1,344	4,842	6,186	6,186	106,669	154,00
007 Year         33,977         NA         1,936         5,624         7,560         7,560           008 Year         34,688         498         2,331         6,007         8,338         8,838           009 Year         47,718         529         1,957         5,109         7,066         7,550           010 Year         49,820         552         1,925         4,525         6,451         7,00           011 Year         51,897         603         2,610         4,455         7,065         7,66           012 January         48,318         587         2,507         4,280         6,786         7,37           February         49,743         572         2,403         4,104         6,508         7,06           March         51,141         557         2,300         3,929         6,229         6,78           April         51,283         566         2,299         4,025         6,324         6,88           May         50,726         575         2,297         4,122         6,419         6,98           July         49,120         589         2,329         4,318         6,647         7,22           August         47,499	34,97°	Year	34,971	NA	2,615	5,582	8,196	8,196	101,137	144,304
208 Year         34,688         498         2,331         6,007         8,338         8,83           209 Year         47,718         529         1,957         5,109         7,066         7,59           2010 Year         49,820         552         1,925         4,525         6,451         7,00           2011 Year         51,897         603         2,610         4,455         7,065         7,66           2012 January         48,318         587         2,507         4,280         6,786         7,37           February         49,743         572         2,403         4,104         6,508         7,06           March         51,141         557         2,300         3,929         6,229         6,78           April         51,283         566         2,299         4,025         6,324         6,88           May         50,726         575         2,297         4,122         6,419         6,99           July         49,120         589         2,329         4,318         6,647         7,23           August         47,499         592         2,363         4,418         6,781         7,37           September         46,231	6,54	Year	36,548	NA	2,928	6,506	9,434	9,434	140,964	186,940
109 Year         47,718         529         1,957         5,109         7,066         7,59           110 Year         49,820         552         1,925         4,525         6,451         7,00           111 Year         51,897         603         2,610         4,455         7,065         7,66           112 January         48,318         587         2,507         4,280         6,786         7,37           February         49,743         572         2,403         4,104         6,508         7,065           March         51,141         557         2,300         3,929         6,229         6,729           April         51,283         566         2,299         4,025         6,324         6,88           May         50,726         575         2,297         4,122         6,419         6,99           July         49,120         589         2,329         4,318         6,647         7,23           August         47,499         592         2,363         4,418         6,781         7,37           September         46,231         596         2,396         4,518         6,914         7,51           October         45,830	3,97	Year	33,977	NA	1,936	5,624	7,560	7,560	151,221	192,758
101   Year	4,68	Year	34,688	498	2,331	6,007	8,338	8,836	161,589	205,112
O11 Year         51,897         603         2,610         4,455         7,065         7,665           O12 January         48,318         587         2,507         4,280         6,786         7,37           February         49,743         572         2,403         4,104         6,508         7,06           March         51,141         557         2,300         3,929         6,229         6,78           April         51,283         566         2,299         4,025         6,324         6,88           May         50,726         575         2,297         4,122         6,419         6,98           June         50,374         585         2,295         4,219         6,514         7,09           July         49,120         589         2,329         4,318         6,647         7,23           August         47,499         592         2,363         4,418         6,781         7,37           September         46,231         596         2,396         4,518         6,914         7,53           October         45,830         592         2,438         4,504         6,942         7,53           December         46,157 <th< td=""><td>7,71</td><td>Year</td><td>47,718</td><td>529</td><td>1,957</td><td>5,109</td><td>7,066</td><td>7,595</td><td>189,467</td><td>244,78</td></th<>	7,71	Year	47,718	529	1,957	5,109	7,066	7,595	189,467	244,78
12 January	19,82	Year	49,820	552	1,925	4,525	6,451	7,003	174,917	231,74
February         49,743         572         2,403         4,104         6,508         7,08           March         51,141         557         2,300         3,929         6,229         6,78           April         51,283         566         2,299         4,025         6,324         6,89           May         50,726         575         2,297         4,122         6,419         6,99           June         50,374         585         2,295         4,219         6,514         7,09           July         49,120         589         2,329         4,318         6,647         7,23           August         47,499         592         2,363         4,418         6,781         7,37           September         46,231         596         2,396         4,518         6,914         7,53           October         45,830         592         2,438         4,504         6,942         7,53           November         45,550         587         2,480         4,489         6,970         7,58           December         46,157         583         2,522         4,475         6,997         7,58           December         46,157         583	1,89	Year	51,897	603	2,610	4,455	7,065	7,668	172,387	231,95
March         51,141         557         2,300         3,929         6,229         6,76           April         51,283         566         2,299         4,025         6,324         6,88           May         50,726         575         2,297         4,122         6,419         6,99           June         50,374         585         2,295         4,219         6,514         7,09           July         49,120         589         2,329         4,318         6,647         7,23           August         47,499         592         2,363         4,418         6,781         7,37           September         46,231         596         2,396         4,518         6,914         7,53           October         45,830         592         2,438         4,504         6,942         7,53           November         45,550         587         2,480         4,489         6,970         7,55           December         46,157         583         2,522         4,475         6,997         7,58           D13 January         F 44,632         565         2,417         4,303         6,720         7,28           February         F 42,087	18,31	January	48,318	587	2,507	4,280	6,786	7,374	180,091	235,78
April         51,283         566         2,299         4,025         6,324         6,88           May         50,726         575         2,297         4,122         6,419         6,98           June         50,374         585         2,295         4,219         6,514         7,08           July         49,120         589         2,329         4,318         6,647         7,23           August         47,499         592         2,363         4,418         6,781         7,37           September         46,231         596         2,396         4,518         6,914         7,51           October         45,830         592         2,438         4,504         6,942         7,55           November         45,550         587         2,480         4,489         6,970         7,55           December         46,157         583         2,522         4,475         6,997         7,55           December         46,157         583         2,522         4,475         6,997         7,28           Potago         7,463         530         2,207         3,959         6,166         6,69           April         F 41,922         529<	19,74	February	49,743	572	2,403	4,104	6,508	7,080	186,866	243,68
May         50,726         575         2,297         4,122         6,419         6,995           June         50,374         585         2,295         4,219         6,514         7,08           July         49,120         589         2,329         4,318         6,647         7,23           August         47,499         592         2,363         4,418         6,781         7,37           September         46,231         596         2,396         4,518         6,914         7,51           October         45,830         592         2,438         4,504         6,942         7,52           November         45,550         587         2,480         4,489         6,970         7,55           December         46,157         583         2,522         4,475         6,997         7,55           December         46,157         583         2,522         4,475         6,997         7,55           December         46,157         583         2,522         4,475         6,997         7,55           December         7 44,632         565         2,417         4,303         6,720         7,28           February         F 42,087	51,14°	March	51,141	557	2,300	3,929	6,229	6,786	195,380	253,30
June         50,374         585         2,295         4,219         6,514         7,09           July         49,120         589         2,329         4,318         6,647         7,23           August         47,499         592         2,363         4,418         6,781         7,37           September         46,231         596         2,396         4,518         6,914         7,51           October         45,830         592         2,438         4,504         6,942         7,53           November         45,550         587         2,480         4,489         6,970         7,55           December         46,157         583         2,522         4,475         6,997         7,58           December         46,157         583         2,522         4,475         6,997         7,58           D13 January         F 44,632         565         2,417         4,303         6,720         7,28           February         F 42,087         548         2,312         4,131         6,443         6,98           March         F 40,673         530         2,207         3,959         6,166         6,68           April         F 41,922	1,28	April	51,283	566	2,299	4,025	6,324	6,890	202,265	260,439
July         49,120         589         2,329         4,318         6,647         7,23           August         47,499         592         2,363         4,418         6,781         7,37           September         46,231         596         2,396         4,518         6,914         7,51           October         45,830         592         2,438         4,504         6,942         7,53           November         45,550         587         2,480         4,489         6,970         7,55           December         46,157         583         2,522         4,475         6,997         7,58           D13 January         F 44,632         565         2,417         4,303         6,720         7,28           February         F 42,087         548         2,312         4,131         6,443         6,99           March         F 40,673         530         2,207         3,959         6,166         6,68           April         F 41,922         529         2,305         3,964         6,288         6,75           May         F 43,112         529         2,402         3,968         6,370         6,88           Jule         F 41,735	0,72	May	50,726	575	2,297	4,122	6,419	6,995	203,137	260,858
August       47,499       592       2,363       4,418       6,781       7,37         September       46,231       596       2,996       4,518       6,914       7,51         October       45,830       592       2,438       4,504       6,942       7,55         November       45,550       587       2,480       4,489       6,970       7,55         December       46,157       583       2,522       4,475       6,997       7,55         December       46,157       583       2,522       4,475       6,997       7,55         December       46,057       583       2,522       4,475       6,997       7,55         December       46,157       583       2,522       4,475       6,997       7,28         February       F 44,632       565       2,417       4,303       6,720       7,28         February       F 42,087       548       2,312       4,131       6,443       6,99         March       F 40,673       530       2,207       3,959       6,166       6,68         April       F 41,922       529       2,305       3,964       6,268       6,77         May	0,37	June	50,374	585	2,295	4,219	6,514	7,099	197,924	255,39
September         46,231         596         2,396         4,518         6,914         7,51           October         45,830         592         2,438         4,504         6,942         7,53           November         45,550         587         2,480         4,489         6,970         7,55           December         46,157         583         2,522         4,475         6,997         7,55           D13 January         F 44,632         565         2,417         4,303         6,720         7,28           February         F 42,087         548         2,312         4,131         6,443         6,99           March         F 40,673         530         2,207         3,959         6,166         6,68           April         F 41,922         529         2,305         3,964         6,268         6,79           May         F 43,112         529         2,402         3,968         6,370         6,88           June         F 41,735         528         2,500         3,973         6,473         7,00           July         F 43,263         529         2,516         4,090         6,606         7,13           August         F 40,782 </td <td>19,12</td> <td>July</td> <td>49,120</td> <td>589</td> <td>2,329</td> <td>4,318</td> <td>6,647</td> <td>7,236</td> <td>183,958</td> <td>240,31</td>	19,12	July	49,120	589	2,329	4,318	6,647	7,236	183,958	240,31
October         45,830         592         2,438         4,504         6,942         7,53           November         45,550         587         2,480         4,489         6,970         7,55           December         46,157         583         2,522         4,475         6,997         7,58           D13 January         F 44,632         565         2,417         4,303         6,720         7,28           February         F 42,087         548         2,312         4,131         6,443         6,98           March         F 40,673         530         2,207         3,959         6,166         6,68           April         F 41,922         529         2,305         3,964         6,268         6,79           May         F 43,112         529         2,402         3,968         6,370         6,88           June         F 41,735         528         2,500         3,973         6,473         7,00           July         F 43,263         529         2,516         4,090         6,606         7,13           August         F 40,782         529         2,531         4,208         6,739         7,26           September         F 40,100	17,49	August	47,499	592	2,363	4,418	6,781	7,373	178,537	233,409
November         45,550         587         2,480         4,489         6,970         7,55           December         46,157         583         2,522         4,475         6,997         7,55           D13 January         F 44,632         565         2,417         4,303         6,720         7,28           February         F 42,087         548         2,312         4,131         6,443         6,99           March         F 40,673         530         2,207         3,959         6,166         6,68           April         F 41,922         529         2,305         3,964         6,288         6,770         6,88           May         F 43,112         529         2,402         3,968         6,370         6,88           July         F 43,263         529         2,510         3,973         6,473         7,00           July         F 43,263         529         2,516         4,090         6,606         7,13           August         F 40,782         529         2,531         4,208         6,739         7,26           September         F 40,100         530         2,546         4,326         6,872         7,40           October<	6,23	September	46,231	596	2,396	4,518	6,914	7,510	182,020	235,76
December         46,157         583         2,522         4,475         6,997         7,58           D13 January         F 44,632         565         2,417         4,303         6,720         7,28           February         F 42,087         548         2,312         4,131         6,443         6,99           March         F 40,673         530         2,207         3,959         6,166         6,68           April         F 41,922         529         2,305         3,964         6,288         6,79           May         F 43,112         529         2,402         3,968         6,370         6,88           June         F 41,735         528         2,500         3,973         6,473         7,00           July         F 43,263         529         2,516         4,090         6,606         7,13           August         F 40,782         529         2,531         4,208         6,739         7,26           September         F 40,100         530         2,546         4,326         6,872         7,40           October         F 39,805         518         2,431         4,253         6,684         7,20           November         F 39	15,830	October	45,830		2,438	4,504		7,534	186,396	239,76
D13 January         F 44,632         565         2,417         4,303         6,720         7,28           February         F 42,087         548         2,312         4,131         6,443         6,99           March         F 40,673         530         2,207         3,959         6,166         6,68           April         F 41,922         529         2,305         3,964         6,268         6,79           May         F 43,112         529         2,402         3,968         6,370         6,88           June         F 41,735         528         2,500         3,973         6,473         7,00           July         F 43,263         529         2,516         4,090         6,606         7,13           August         F 40,782         529         2,531         4,208         6,739         7,26           September         F 40,100         530         2,546         4,326         6,872         7,40           October         F 33,805         518         2,431         4,253         6,684         7,20           November         F 39,979         506         2,315         4,181         6,496         7,00	15,550	November	45,550	587	2,480	4,489	6,970	7,557	188,291	241,398
February         F 42,087         548         2,312         4,131         6,443         6,99           March         F 40,673         530         2,207         3,959         6,166         6,68           April         F 41,922         529         2,305         3,964         6,268         6,79           May         F 43,112         529         2,402         3,968         6,370         6,89           June         F 41,735         528         2,500         3,973         6,473         7,00           July         F 43,263         529         2,516         4,090         6,606         7,13           August         F 40,782         529         2,531         4,208         6,739         7,26           September         F 40,100         530         2,546         4,326         6,872         7,40           October         F 39,805         518         2,431         4,253         6,684         7,20           November         F 39,979         506         2,315         4,181         6,496         7,00	6,15	December	46,157	583	2,522	4,475	6,997	7,581	185,116	238,85
March         F 40,673         530         2,207         3,959         6,166         6,69           April         F 41,922         529         2,305         3,964         6,268         6,77           May         F 43,112         529         2,402         3,968         6,370         6,89           June         F 41,735         528         2,500         3,973         6,473         7,00           July         F 43,263         529         2,516         4,090         6,606         7,13           August         F 40,782         529         2,531         4,208         6,739         7,26           September         F 40,100         530         2,546         4,326         6,872         7,40           October         F 39,805         518         2,431         4,253         6,684         7,20           November         F 39,979         506         2,315         4,181         6,496         7,00		January						7,286	178,747	230,66
April         F 41,922         529         2,305         3,964         6,268         6,75           May         F 43,112         529         2,402         3,968         6,370         6,85           June         F 41,735         528         2,500         3,973         6,473         7,00           July         F 43,263         529         2,516         4,090         6,606         7,13           August         F 40,782         529         2,531         4,208         6,739         7,26           September         F 40,100         530         2,546         4,326         6,872         7,40           October         F 39,805         518         2,431         4,253         6,684         7,20           November         F 39,979         506         2,315         4,181         6,496         7,00							-,	6,991	175,325	224,40
May         F 43,112         529         2,402         3,968         6,370         6,88           June         F 41,735         528         2,500         3,973         6,473         7,00           July         F 43,263         529         2,516         4,090         6,606         7,13           August         F 40,782         529         2,531         4,208         6,739         7,26           September         F 40,100         530         2,546         4,326         6,872         7,40           October         F 39,805         518         2,431         4,253         6,684         7,20           November         F 39,979         506         2,315         4,181         6,496         7,00		March						6,696	171,518	218,88
June         F 41,735         528         2,500         3,973         6,473         7,00           July         F 43,263         529         2,516         4,090         6,606         7,13           August         F 40,782         529         2,531         4,208         6,739         7,26           September         F 40,100         530         2,546         4,326         6,872         7,40           October         F 39,805         518         2,431         4,253         6,684         7,20           November         F 39,979         506         2,315         4,181         6,496         7,00		April						6,797	172,654	221,37
July     F 43,263     529     2,516     4,090     6,606     7,13       August     F 40,782     529     2,531     4,208     6,739     7,26       September     F 40,100     530     2,546     4,326     6,872     7,40       October     F 39,805     518     2,431     4,253     6,684     7,20       November     F 39,979     506     2,315     4,181     6,496     7,00		May						6,899	176,670	226,68
August       F 40,782       529       2,531       4,208       6,739       7,26         September       F 40,100       530       2,546       4,326       6,872       7,40         October       F 39,805       518       2,431       4,253       6,684       7,20         November       F 39,979       506       2,315       4,181       6,496       7,00		June						7,001	170,534	219,27
August       F 40,782       529       2,531       4,208       6,739       7,26         September       F 40,100       530       2,546       4,326       6,872       7,40         October       F 39,805       518       2,431       4,253       6,684       7,20         November       F 39,979       506       2,315       4,181       6,496       7,00	13,26	July	43,263		2,516	4,090	6,606	7,135	159,536	209,93
October         F 39,805         518         2,431         4,253         6,684         7,20           November         F 39,979         506         2,315         4,181         6,496         7,00	10,78		40,782					7,269	154,119	202,169
November F 39,979 506 2,315 4,181 6,496 7,00		September					6,872	7,402	152,185	199,68
					2,431	4,253	6,684	7,202	153,352	200,36
December F 42.692 494 2.200 4.108 6.308 6.80								7,002	155,754	202,73
	2,69	December	42,692	494	2,200	4,108	6,308	6,802	147,973	197,467
		January						<sup>F</sup> 6,623 <sup>F</sup> 6,278	132,324	181,578

<sup>&</sup>lt;sup>a</sup> Through 1979, data are for the residential and commercial sectors. Beginning n 2008, data are for the commercial sector only

NA=Not available. F=Forecast.

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

are from Table 7.5; producers and distributors monthly values are estimates derived from collected annual data; all other monthly values are estimates derived from collected quarterly values. • Data values preceded by "F" are derived from the U.S. Energy Information Administration's Short-Term Integrated Forecasting System. See Note 4, "Coal Forecast Values," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia

the 50 states and the District of Columbia.

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

Sources: See end of section.

in 2008, data are for the commercial sector only.

<sup>b</sup> Through 1979, data are for manufacturing plants and the transportation sector.

For 1980–2007, data are for manufacturing plants only. Beginning in 2008, data are for manufacturing plants and coal transformation/processing plants.

are for manufacturing plants and coal transformation/processing plants.

<sup>c</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.

electricity, or electricity and heat, to the public.

<sup>d</sup> Through 1998, data are for electric utilities and independent power producers.

### Coal

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

Through 2001, the weekly coal production model converted AAR data into short tons of coal by using the average number of short tons of coal per railcar loaded reported in the "Quarterly Freight Commodity Statistics" from the Surface Transportation Board. If an average coal tonnage per railcar loaded was not available for a specific railroad, the national average was used. To derive the estimate of total weekly production, the total rail tonnage for the week was divided by the ratio of quarterly production shipped by rail and total quarterly production. Data for the corresponding quarter of previous years were used to derive this ratio. This method ensured that the seasonal variations were preserved in the production estimates.

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

When preliminary quarterly data become available, the monthly and weekly estimates are adjusted to conform to the quarterly figures. The adjustment procedure uses state-level production explained data and is http://www.eia.gov/coal/production/weekly/. Initial estimates of annual production published in January of the following year are based on preliminary production data covering the first nine months (three quarters) and weekly/monthly estimates for the fourth quarter. All quarterly, monthly, and weekly production figures are adjusted to conform to the final annual production data published in the *Monthly Energy Review* in the fall of the following year.

**Note 2. Coal Consumption.** Forecast data (designated by an "F") are derived from forecasted values shown in EIA's *Short-Term Energy Outlook* (DOE/EIA-0202) table titled "U.S. Coal Supply, Consumption, and Inventories." The monthly estimates are based on the quarterly values, which are released in March, June, September, and December. The

estimates are revised quarterly as collected data become available from the data sources. Sector-specific information follows.

Residential and Commercial—Through 2007, coal consumption by the residential and commercial sectors is reported to EIA for the two sectors combined; EIA estimates the amount consumed by the sectors individually. To create the estimates, it is first assumed that an occupied coal-heated housing unit consumes fuel at the same Btu rate as an oilheated housing unit. Then, for the years in which data are available on the number of occupied housing units by heating source (1973-1981 and subsequent odd-numbered years), residential consumption of coal is estimated using the following steps: a ratio is created of the number of occupied housing units heated by coal to the number of occupied housing units heated by oil; that ratio is then multiplied by the Btu quantity of oil consumed by the residential sector to derive an estimate of the Btu quantity of coal consumed by the residential sector; and, finally, the amount estimated as the residential sector consumption is subtracted from the residential and commercial sectors' combined consumption to derive the commercial sector's estimated consumption. Beginning in 2008, residential coal consumption data are not collected by EIA, and commercial coal consumption data are taken directly from reported data.

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

Industrial Other—Through 1977, monthly consumption data for the other industrial sector (all industrial users minus coke plants) were derived by using reported data to modify baseline consumption figures from the most recent Bureau of the Census Annual Survey of Manufactures or Census of Manufactures. For 1978 and 1979, monthly estimates were derived from data reported on Forms EIA-3 and EIA-6. For 1980–1987, monthly figures were estimated by proportioning quarterly data by using the ratios of monthly-to-quarterly consumption data in 1979, the last year in which monthly data were reported on Form EIA-3. Beginning in 1988, monthly consumption for the other industrial sector is estimated from reported quarterly data by using ratios derived from industrial production indices published by the Board of Governors of the Federal Reserve System. Indices for six major industry groups are used as the basis for calculating the ratios: food manufacturing, which is North American Industry Classification System (NAICS) code 311; paper manufacturing, NAICS

322; chemical manufacturing, NAICS 325; petroleum and coal products, NAICS 324; non-metallic mineral products manufacturing, NAICS 327; and primary metal manufacturing, NAICS 331. The monthly ratios are computed as the monthly sum of the weighted indices as a proportion of the quarterly sum of the weighted indices by using the 1977 proportion as the weights. Through 2007, quarterly consumption data for the other industrial sector were derived by adding beginning stocks at manufacturing plants to current receipts and subtracting ending stocks at manufacturing plants. In this calculation, current receipts are the greater of either reported receipts from manufacturing plants (Form EIA-3) or reported shipments to the other industrial sector (Form EIA-6), thereby ensuring that agriculture, forestry, fishing, and construction consumption data were included where appropriate. Beginning in 2008, quarterly consumption totals for other industrial coal include data for manufacturing and mining only. Over time, surveyed coal consumption data for agriculture, forestry, fishing, and construction dwindled to about 20-30 thousand short tons annually. Therefore, in 2008, EIA consolidated its programs by eliminating agriculture. forestry, fishing, and construction as surveyed sectors.

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

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

Producers and Distributors—Through 1997, quarterly stocks at producers and distributors were taken directly from reported data. Monthly data were estimated by using one-third of the current quarterly change to indicate the monthly change in stocks. Beginning in 1998, end-of-year stocks are taken from reported data. Monthly stocks are estimated by a model.

Residential and Commercial—Through 1979, stock estimates for the residential and commercial sector were taken directly from reported data. For 1980–2007, stock estimates were not collected. Beginning in 2008, quarterly commercial (excluding residential) stocks data are collected on Form EIA-3 (data for "Commercial and Institutional Coal Users").

Industrial Coke Plants—Through 1979, monthly stocks at coke plants were taken directly from reported data. Beginning in 1980, coke plant stocks are estimated by using one-third of the current quarterly change to indicate the monthly

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

Industrial Other—Through 1977, stocks for the other industrial sector were derived by using reported data to modify baseline figures from a one-time Bureau of Mines survey of consumers. For 1978–1982, monthly estimates were derived by judgmentally proportioning reported quarterly data based on representative seasonal patterns of supply and demand. Beginning in 1983, other industrial coal stocks are estimated as indicated above for coke plants. Quarterly stocks are taken directly from data reported on Form EIA-3 and therefore include only manufacturing industries; data for agriculture, forestry, fishing, mining, and construction stocks are not available.

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

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

The STIFS model results are published monthly in EIA's *Short-Term Energy Outlook*, which is accessible on the Web at http://www.eia.gov/forecasts/steo/.

### **Table 6.1 Sources**

### **Production**

1949–September 1977: U.S. Department of the Interior, Bureau of Mines, *Minerals Yearbook* and *Minerals Industry Surveys*.

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

### Waste Coal Supplied

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

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

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

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

2008 forward: EIA, Form EIA-923, "Power Plant Operations Report," and Form EIA-3, "Quarterly Coal Consumption and Quality Report—Manufacturing and Transformation/Processing

Coal Plants and Commercial and Institutional Coal Users"; and, for forecast values, EIA, Short-Term Integrated Forecasting System (STIFS).

### **Imports and Exports**

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

### **Stock Change**

1950 forward: Calculated from data in Table 6.3.

### Losses and Unaccounted for

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

### Consumption

1949 forward: Table 6.2.

### **Table 6.2 Sources**

### **Residential and Commercial Total**

Through 2007, coal consumption by the residential and commercial sectors combined is reported to the U.S. Energy Information Administration (EIA). EIA estimates the sectors individually using the method described in Note 2, "Consumption," at the end of Section 6. Data for the residential and commercial sectors combined are from:

1949–1976: U.S. Department of the Interior (DOI), Bureau of Mines (BOM), *Minerals Yearbook*.

January–September 1977: DOI, BOM, Form 6-1400, "Monthly Coal Report, Retail Dealers—Upper Lake Docks." October 1977–1979: EIA, Form EIA-2, "Monthly Coal Report, Retail Dealers—Upper Lake Docks."

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

1998–2007: DOI, Mine Safety and Health Administration, Form 7000-2, "Quarterly Coal Consumption and Quality Report—Coke Plants."

### **Commercial Total**

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

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

### **Commercial CHP**

1989 forward: Table 7.4c.

### **Commercial Other**

1949 forward: Calculated as "Commercial Total" minus "Commercial CHP."

#### **Industrial Coke Plants**

1949–September 1977: DOI, BOM, Minerals Yearbook and Minerals Industry Surveys.

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

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

1985 forward: EIA, Form EIA-5, "Quarterly Coal Consumption and Quality Report—Coke Plants"; and, for forecast values, EIA, STIFS.

### Other Industrial Total

1949–September 1977: DOI, BOM, *Minerals Yearbook* and *Minerals Industry Surveys*.

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

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

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

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

### Other Industrial CHP

1989 forward: Table 7.4c.

### **Other Industrial Non-CHP**

1949 forward: Calculated as "Other Industrial Total" minus "Other Industrial CHP."

### **Transportation**

1949–1976: DOI, BOM, Minerals Yearbook.

January–September 1977: DOI, BOM, Form 6-1400, "Monthly Coal Report, Retail Dealers—Upper Lake Docks." October–December 1977: EIA, Form EIA-6, "Coal Distribution Report," quarterly.

### **Electric Power**

1949 forward: Table 7.4b.

### **Table 6.3 Sources**

### **Producers and Distributors**

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

1980–1997: U.S. Energy Information Administration (EIA), Form EIA-6, "Coal Distribution Report," quarterly. 1998–2007: EIA, Form EIA-6A, "Coal Distribution Report," annual.

2008 forward: EIA, Form EIA-7A, "Coal Production Report," annual, and Form EIA-8A, "Coal Stocks Report,"

annual; and, for forecast values, EIA, Short-Term Integrated Forecasting System (STIFS).

### **Residential and Commercial**

1949–1976: DOI, BOM, Minerals Yearbook.

January–September 1977: DOI, BOM, Form 6-1400, "Monthly Coal Report, Retail Dealers—Upper Lake Docks." October 1977–1979: EIA, Form EIA-2, "Monthly Coal Report, Retail Dealers—Upper Lake Docks."

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

### **Industrial Coke Plants**

1949–September 1977: DOI, BOM, *Minerals Yearbook* and *Minerals Industry Surveys*.

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

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

1985 forward: EIA, Form EIA-5, "Quarterly Coal Consumption and Quality Report—Coke Plants" and, for forecast values, EIA, STIFS.

### **Industrial Other**

1949–September 1977: DOI, BOM, *Minerals Yearbook* and *Minerals Industry Surveys*.

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

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

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

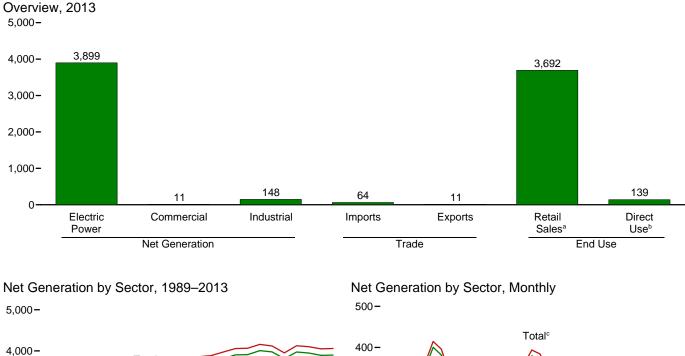
### **Electric Power**

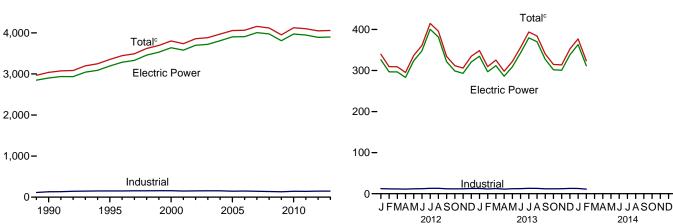
1949 forward: Table 7.5.

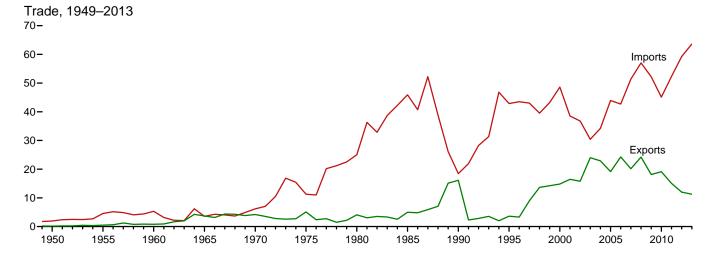
THIS PAGE INTENTIONALLY LEFT BLANK

# 7. Electricity

Figure 7.1 Electricity Overview (Billion Kilowatthours)







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

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

<sup>°</sup> Includes commercial sector. Web Page: http://www.eia.gov/totalenergy/data/monthly/#electricity. Source: Table 7.1.

**Table 7.1 Electricity Overview** 

(Billion Kilowatthours)

		Net Gen	eration			Trade				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>	T&D Losses <sup>e</sup> and Unaccounted for <sup>f</sup>	Retail Sales <sup>g</sup>	Direct Use <sup>h</sup>	Total
950 Total 955 Total	329 547	NA NA	5 3	334 550	2 5	(s) (s)	2 4	44 58	291 497	NA NA	291 497
960 Total	756	NA	4	759	5	1	5	76	688	NA	688
965 Total	1,055	NA	3	1,058	4	4	(s) 2	104	954	NA	954
970 Total	1,532	NA	3	1,535	6	4		145	1,392	NA	1,392
975 Total	1,918	NA NA	3 3	1,921	11 25	5 4	6 21	180	1,747	NA NA	1,747
980 Total 985 Total	2,286 2,470	NA NA	3	2,290 2,473	46	5	41	216 190	2,094 2,324	NA NA	2,094 2,324
990 Total	2,901	6	۰ 131	3,038	18	16	2	203	2,713	125	2,837
995 Total	3.194	8	151	3,353	43	4	39	229	3,013	151	3,164
000 Total	3,638	8	157	3,802	49	15	34	244	3,421	171	3,592
001 Total	3,580	7	149	3,737	39	16	22	202	3,394	163	3,557
002 Total	3,698	7	153	3,858	37	16	21	248	3,465	166	3,632
003 Total	3,721	7	155	3,883	30	24	.6	228	3,494	168	3,662
004 Total	3,808	8	154	3,971	34	23	11	266	3,547	168	3,716
005 Total	3,902	8 8	145	4,055	44 43	19 24	25 18	269	3,661	150	3,811
006 Total 007 Total	3,908 4,005	8	148 143	4,065 4,157	43 51	24 20	31	266 298	3,670 3,765	147 126	3,817 3,890
008 Total	3,974	8	137	4,119	57	24	33	287	3,733	132	3,865
009 Total	3,810	8	132	3.950	52	18	34	261	3,597	127	3,724
010 Total	3,972	ğ	144	4,125	45	19	26	265	3,754	132	3,886
011 Total	3,948	10	142	4,100	52	15	37	255	3,750	133	3,883
012 January	326	1	12	340	4	1	3	20	311	E 12	323
February	297	1	12	309	4	1	3	14	287	<u> </u>	298
March	296	1	12	309	4	1	3	17	284	E 11	295
April	283	1	11	295	5	1	4	18	271	E 11	281
May	324	1	12	337	5	1	4 4	33	297	E 11 E 11	308
June	348 400	1	12 13	361 415	5 7	1	6	28 37	325 371	E 13	337 383
July August	381	i	13	396	6	i	5	24	365	E 12	377
September	322	i	12	335	5	i	4	9	318	E 11	329
October	299	i	12	312	4	i	4	13	291	E 11	302
November	293	1	12	306	5	1	4	20	278	E 11	290
December	321	1	13	335	4	1	3	29	297	E 12	309
Total	3,890	11	146	4,048	59	12	47	263	3,695	138	3,832
013 January	335	1	13	348	5	1	4	23	318	E 12	330
February	297	1	12	309	5	1	4 4	14	289	E 11 E 12	300
March	312 286	1	13 11	325 298	5 5	1	3	23 16	294 275	E 11	306 285
April May	309	i	12	322	5 5	1	5 5	28	275 287	E 11	203 298
June	343	i	12	356	6	i	5	32	317	E 12	329
July	380	i	13	394	6	i	5	31	356	E 12	368
August	370	1	13	384	6	1	6	27	350	E 12	363
September	327	1	12	340	5	1	4	12	321	E 11	332
October	302	1	12	315	5	1	4	15	292	E 11	303
November	301	1	12	314	5	1	4	27	279	E 12	291
December Total	338 <b>3,899</b>	1 <b>11</b>	13 <b>148</b>	352 <b>4,058</b>	5 <b>64</b>	1 11	4 <b>52</b>	30 <b>279</b>	314 <b>3,692</b>	E 12 E <b>139</b>	326 <b>3,831</b>
014 January	363	1	13	377	5	1	4	30	339	E 12	351
February	312	i	11	324	4	i	3	7	309	E 11	320
2-Month Total	675	2	24	701	9	3	6	36	648	E 23	671
013 2-Month Total 012 2-Month Total	632 623	2 2	24 24	658 649	10 8	2 2	8 6	36 34	606 598	E 23 E 23	629 621

<sup>&</sup>lt;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.

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

1 Data collection frame differences and nonsampling error.

9 Electricity retail sales to ultimate customers by electric utilities and, beginning

in 1996, other energy service providers.

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

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

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

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

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

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

beginning in 1973.
Sources: See end of section.

plants.

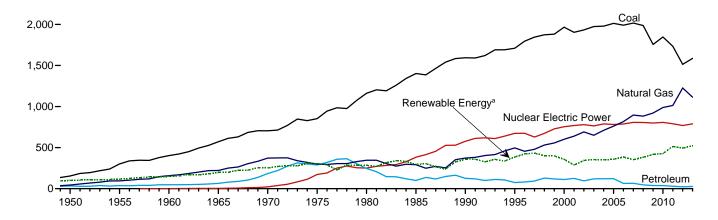
<sup>&</sup>lt;sup>c</sup> Industrial combined-heat-and-power (CHP) and industrial electricity-only plants. Through 1988, data are for industrial hydroelectric power only.

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

Figure 7.2 Electricity Net Generation (Billion Kilowatthours)

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

2,500-



Total (All Sectors), Major Sources, Monthly

Nuclear Electric
Power

150Coal

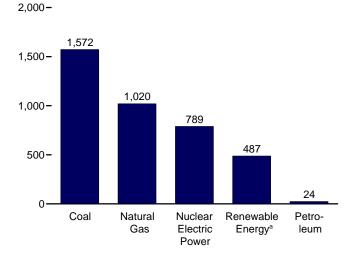
Natural Gas

50Renewable Energy<sup>a</sup>
Petroleum

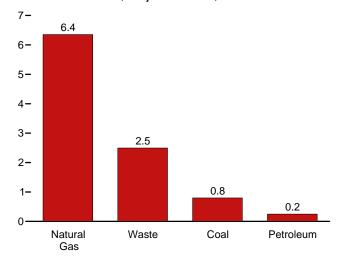
J FMAM J J A SOND 2012

2013

Electric Power Sector, Major Sources, 2013

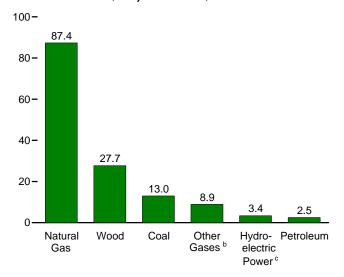


Commercial Sector, Major Sources, 2013



 $<sup>\</sup>ensuremath{^{\mathrm{a}}}$  Conventional hydroelectric power, wood, waste, geothermal, solar/PV, and wind.

Industrial Sector, Major Sources, 2013



<sup>&</sup>lt;sup>c</sup> Conventional hydroelectric power.

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

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

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

(Sum of Tables 7.2b and 7.2c; Million Kilowatthours)

		Fossil	Fuels						Renewab	le Energy			
					Nuclear	Hydro- electric	Conven- tional Hydro-	Bio	mass				
	Coala	Petro- leum <sup>b</sup>	Natural Gas <sup>c</sup>	Other Gases <sup>d</sup>	Electric Power	Pumped Storage <sup>e</sup>	electric Power <sup>f</sup>	Wood <sup>g</sup>	Wasteh	Geo- thermal	Solar/ PV <sup>i</sup>	Wind	Total <sup>j</sup>
1950 Total	154,520	33,734	44,559	NA	0	( <sup>f</sup> )	100,885	390	NA	NA	NA	NA	334,088
1955 Total	301,363	37,138	95,285	NA	0	( į )	116,236	276	NA	NA	NA	NA	550,299
1960 Total	403,067 570,926	47,987 64.801	157,970 221.559	NA NA	518 3.657	(;)	149,440 196.984	140 269	NA NA	33 189	NA NA	NA NA	759,156
1965 Total 1970 Total	704,394	184,183	372,890	NA NA	21,804	} f {	250,957	136	220	525	NA NA	NA NA	1,058,386 1,535,111
1975 Total	852.786	289,095	299,778	NA	172,505	}f∫	303,153	18	174	3.246	NA	NA	1,920,755
1980 Total		245,994	346,240	NA	251,116	ζf;	279,182	275	158	5,073	NA	NA	2,289,600
1985 Total	1,402,128	100,202	291,946	NA	383,691	(f)	284,311	743	640	9,325	11	6	2,473,002
1990 Total <sup>k</sup>		126,460	372,765	10,383	576,862	-3,508	292,866	32,522	13,260	15,434	367	2,789	3,037,827
1995 Total		74,554	496,058	13,870	673,402	-2,725	310,833	36,521	20,405	13,378	497	3,164	3,353,487
2000 Total 2001 Total		111,221 124.880	601,038 639,129	13,955 9.039	753,893 768,826	-5,539 -8.823	275,573 216.961	37,595 35,200	23,131 14,548	14,093 13,741	493 543	5,593 6,737	3,802,105 3.736.644
2002 Total		94,567	691,006	11,463	780,064	-0,023 -8,743	264,329	38,665	15,044	14,491	555	10,354	3,858,452
2003 Total		119,406	649,908	15,600	763,733	-8,535	275,806	37,529	15,812	14,424	534	11,187	3,883,185
2004 Total		121,145	710,100	15,252	788,528	-8,488	268,417	38,117	15,421	14,811	575	14,144	3,970,555
2005 Total		122,225	760,960	13,464	781,986	-6,558	270,321	38,856	15,420	14,692	550	17,811	4,055,423
2006 Total		64,166	816,441	14,177	787,219	-6,558	289,246	38,762	16,099	14,568	508	26,589	4,064,702
2007 Total		65,739	896,590	13,453	806,425	-6,896	247,510	39,014	16,525	14,637	612	34,450	4,156,745
2008 Total		46,243	882,981	11,707	806,208	-6,288	254,831	37,300	17,734	14,840	864	55,363	4,119,388
2009 Total 2010 Total		38,937 37,061	920,979 987,697	10,632 11,313	798,855 806,968	-4,627 -5,501	273,445 260,203	36,050 37,172	18,443 18,917	15,009 15,219	891 1,212	73,886 94,652	3,950,331 4,125,060
2011 Total		30,182	1,013,689	11,566	790,204	-6,421	319,355	37,172	19,222	15,316	1,818	120,177	4,123,000
	.,,	00,.02	.,,	,000		٥,	0.0,000	0.,	,	.0,0.0	.,	0,	.,,
2012 January	129,091	2,477	90,761	1,017	72,381	-348	23,107	3,314	1,601	1,263	95	13,632	339,528
February	113,872	1,902	90,610	1,044	63,847	-237	20,283	3,111	1,504	1,193	135	11,052	309,389
March	105,526	1,541	92,251	1,076	61,729	-281	25,909	3,034	1,623	1,285	231	14,026	309,091
April	96,285 115,983	1,503 1,730	94,829 107,352	1,057 1,002	55,871 62,081	-265 -371	26,294 28,643	2,704 2,937	1,583 1,654	1,248 1,304	319 463	12,709 12,541	295,228 336,518
May June	131,261	2.068	115.598	972	65.140	-507	26,659	3,081	1,612	1,304	527	11,972	360,826
July	160.450	2,340	138,863	1,042	69,129	-619	26,491	3,352	1,721	1,321	510	8,822	414,640
August	152,181	2,118	131,736	1,050	69,602	-529	23,034	3,370	1,726	1,304	461	8,469	395,700
September	125,589	1,860	108,012	904	64,511	-431	17,604	3,227	1,626	1,300	458	8,790	334,585
October	120,999	1,805	91,725	895	59,743	-378	16,501	3,113	1,716	1,329	431	12,636	311,651
November	128,727	1,810	80,169	875	56,713	-409	18,732	3,190	1,684	1,347	347	11,649	305,975
December	134,079	2,036	83,989	963	68,584	-576	22,984	3,365	1,773	1,390	349	14,524	334,635
Total	1,514,043	23,190	1,225,894	11,898	769,331	-4,950	276,240	37,799	19,823	15,562	4,327	140,822	4,047,765
2013 January	138,265	2,708	88,012	998	71,406	-463	25,114	3,424	1,632	1,443	319	14,633	348,490
February	123,828	1,974	79,874	877	61,483	-300	20,511	3,141	1,435	1,301	479	13,907	309,435
March	130,961	2,011	84,281	989	62,947	-409	20,654	3,372	1,708	1,424	667	15,643	325,301
April	112,232	1,887	77,128	925	56,767	-288	24,758	2,701	1,634	1,330	734	17,294	298,074
May	119,898	2,410	83,063	1,059	62,848	-355	28,549	3,140	1,747	1,357	827	16,264	321,834
June	138,849	2,341	98,517	1,015	66,430	-355	27,308	3,287	1,702	1,377	930	13,766	356,224
July	153,304	2,839	119,274	1,150	70,539	-345	27,240	3,526	1,750	1,404	861	11,146	393,799
August September	149,875 133,577	2,469 2,108	119,480 101,102	1,144 1,037	71,344 65,799	-454 -389	21,712 16,929	3,586 3,396	1,717 1,624	1,379 1,356	1,001 979	9,593 11,709	383,968 340,293
October	121,474	1,883	88,049	966	63,184	-320	17,307	3,327	1,659	1,425	967	13,720	314,683
November	121,431	1,807	83,110	1,064	64,975	-345	17,732	3,413	1,652	1,298	750	15,888	313,752
December	142,304	2,426	91,777	1,048	71,294	-402	21,323	3,623	1,696	1,424	737	14,100	352,357
Total	1,585,998	26,863	1,113,665	12,271	789,017	-4,424	269,136	39,937	19,957	16,517	9,252	167,665	4,058,209
2014 January	157,699	7,130	90.489	947	73,064	-263	21,616	3,635	1,583	1,396	774	17,989	377,019
February	143.908	2.788	74,987	760	62,639	-419	17.430	3,271	1,344	1,257	858	14,001	323,662
2-Month Total	301,607	9,918	165,477	1,706	135,703	-683	39,046	6,907	2,927	2,653	1,632	31,990	700,681
2013 2-Month Total	262.092	4.682	167.886	1.875	132.889	-762	45.625	6.565	3.067	2.745	798	28.540	657.925
2012 2-Month Total	242,963	4,002	181,371	2,061	136,228	-762	43,391	6,425	3,105	2,745	231	24,684	648,918

<sup>&</sup>lt;sup>a</sup> Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal

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

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

Na=Not available.

NA=Not available.

Notes: • See Note 1, "Coverage of Electricity Statistics," at end of section.

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

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

Web Page: See http://www.eia.gov/totalenergy/data/monthly/#electricity (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.
Sources: See sources for Tables 7.2b and 7.2c.

synfuel.

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

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

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

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

Pumped storage facility production minus energy used for pumping.

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

Wood and weed derived fields.

<sup>9</sup> Wood and wood-derived fuels.

h Municipal solid waste from biogenic sources, landfill gas, sludge waste, agricultural byproducts, and other biomass. Through 2000, also includes non-renewable waste (municipal solid waste from non-biogenic sources, and i Solar thermal and photovoltaic (PV) energy.

Table 7.2b Electricity Net Generation: Electric Power Sector

(Subset of Table 7.2a; Million Kilowatthours)

		Fossil	Fuels										
					Nuclear	Hydro- electric	Conven- tional Hydro-	Bior	mass				
	Coala	Petro- leum <sup>b</sup>	Natural Gas <sup>c</sup>	Other Gases <sup>d</sup>	Electric Power	Pumped Storage <sup>e</sup>	electric Power <sup>f</sup>	Wood <sup>g</sup>	Wasteh	Geo- thermal	Solar/ PV <sup>i</sup>	Wind	Total <sup>j</sup>
1950 Total	154,520	33,734	44,559	NA	0	( <sup>f</sup> )	95,938	390	NA	NA	NA	NA	329,141
1955 Total	301,363	37,138	95,285	NA	0	(1)	112,975	276	NA	NA	NA	NA	547,038
1960 Total	403,067	47,987	157,970	NA	518	(¦)	145,833	140	NA	33	NA	NA	755,549
1965 Total	570,926 704,394	64,801 184,183	221,559 372,890	NA NA	3,657 21,804	\	193,851 247,714	269 136	NA 220	189 525	NA NA	NA NA	1,055,252 1,531,868
1975 Total	852,786	289,095	299,778	NA	172,505	}f{	300,047	18	174	3.246	NA	NA	1,917,649
1980 Total		245,994	346,240	NA	251,116	}f {	276,021	275	158	5,073	NA	NA	2,286,439
1985 Total		100,202	291,946	NA	383,691	( f <b>(</b>	281,149	743	640	9,325	11	6	2,469,841
1990 Total <sup>k</sup>		118,864	309,486	621	576,862	-3,508	289,753	7,032	11,500	15,434	367	2,789	2,901,322
1995 Total		68,146	419,179	1,927	673,402	-2,725	305,410	7,597	17,986	13,378	497	3,164	3,194,230
2000 Total		105,192	517,978	2,028 586	753,893	-5,539	271,338	8,916	20,307	14,093	493	5,593 6.737	3,637,529
2001 Total 2002 Total		119,149 89,733	554,940 607,683	586 1,970	768,826 780,064	-8,823 -8,743	213,749 260,491	8,294 9,009	12,944 13,145	13,741 14,491	543 555	10,354	3,580,053 3,698,458
2002 Total		113,697	567,303	2,647	763,733	-8,535	271,512	9,528	13,808	14,424	534	11,187	3,721,159
2004 Total		114,678	627,172	3,568	788,528	-8,488	265,064	9,736	13,062	14,811	575	14,144	3,808,360
2005 Total		116,482	683,829	3,777	781,986	-6,558	267,040	10,570	13,031	14,692	550	17,811	3,902,192
2006 Total		59,708	734,417	4,254	787,219	-6,558	286,254	10,341	13,927	14,568	508	26,589	3,908,077
2007 Total		61,306	814,752	4,042	806,425	-6,896	245,843	10,711	14,294	14,637	612	34,450	4,005,343
2008 Total		42,881	802,372	3,200	806,208	-6,288	253,096	10,638	15,379	14,840	864	55,363	3,974,349
2009 Total 2010 Total		35,811 34,679	841,006 901,389	3,058 2,967	798,855 806,968	-4,627 -5,501	271,506 258,455	10,738 11,446	15,954 16,376	15,009 15,219	891 1,206	73,886 94,636	3,809,837 3,972,386
2011 Total		28,202	926,290	2,939	790,204	-5,501 -6,421	317,531	10,733	15,989	15,219	1,727	120,121	3,948,186
	.,,	_0,_0_	020,200	_,000		٥,	0,00.	.0,.00	.0,000	.0,0.0	.,	,	0,0 .0, .00
2012 January	127,874	2,132	83,122	263	72,381	-348	22,830	971	1,353	1,263	91	13,624	326,186
February	112,774	1,672	83,308	256	63,847	-237	20,041	912	1,250	1,193	129	11,045	296,790
March	104,410	1,304	85,001	261	61,729	-281	25,672	892	1,353	1,285	221	14,019	296,498
April	95,284 114,930	1,287 1,527	87,748 99,625	254 244	55,871 62,081	-265 -371	26,113 28,427	716 813	1,317 1,386	1,248 1,304	305 445	12,702 12,535	283,182 323,599
May June	130.147	1,840	107.685	253	65.140	-507	26,427	935	1,369	1,304	508	11,967	347,760
July	159,178	2,086	130,133	266	69,129	-619	26,352	1.047	1,444	1,321	492	8,818	400,315
August	150,941	1,821	123,160	266	69,602	-529	22,880	1,060	1,432	1,304	445	8,465	381,494
September	124,496	1,595	100,267	232	64,511	-431	17,443	949	1,362	1,300	439	8,785	321,586
October	119,952	1,556	84,207	225	59,743	-378	16,306	876	1,422	1,329	415	12,628	298,905
November	127,648	1,515	72,601	211	56,713	-409	18,518	911	1,389	1,347	335	11,642	293,046
December	132,923	1,737	75,934	253	68,584	-576	22,795	968	1,478	1,390	339	14,517	320,996
Total	1,500,557	20,072	1,132,791	2,984	769,331	-4,950	273,859	11,050	16,555	15,562	4,164	140,749	3,890,358
2013 January	137,168	2,428	79,820	244	71,406	-463	24,794	1,016	1,344	1,443	308	14,626	334,716
February	122,759	1,799	72,491	198	61,483	-300	20,163	908	1,172	1,301	461	13,899	296,860
March	129,790	1,766	76,346	220	62,947	-409	20,352	1,011	1,410	1,424	642	15,634	311,758
April	111,221	1,644	70,014	226	56,767	-288	24,501	669	1,358	1,330	704	17,284	286,013
May	118,735	2,136	75,479	274	62,848	-355	28,225	921	1,469	1,357	794	16,254	308,782
June	137,631 151,994	2,089 2,561	90,813 111,040	284 323	66,430 70,539	-355 -345	27,010 26,925	985 1,094	1,413 1,449	1,377 1,404	896 831	13,758 11,139	342,970 379,613
July August	148,684	2,301	111,040	323 321	70,539	-345 -454	20,925	1,172	1,449	1,379	962	9,587	379,613
September	132,449	1,871	93,574	303	65,799	-389	16,698	1,091	1,327	1,356	943	11,702	327,318
October	120,361	1,682	80,497	295	63,184	-320	17,077	1,038	1,347	1,425	933	13,713	301,805
November	120,290	1,673	75,197	333	64,975	-345	17,527	1,124	1,346	1,298	728	15,879	300,597
December	141,097	2,245	83,337	325	71,294	-402	20,994	1,200	1,376	1,424	716	14,091	338,299
Total	1,572,179	24,094	1,019,962	3,345	789,017	-4,424	265,738	12,228	16,416	16,517	8,918	167,567	3,898,792
2014 January	156,370	6,780	82,449	304	73,064	-263	21,268	1,263	1,281	1,396	754	17,977	363,189
February	142,691	2,562	67,888	241	62,639	-419	17,179	1,112	1,098	1,257	841	13,991	311,554
2-Month Total	299,061	9,342	150,337	545	135,703	-683	38,447	2,375	2,379	2,653	1,595	31,968	674,743
2013 2-Month Total	259.928	4,227	152.311	442	132,889	-762	44.956	1.924	2.515	2.745	768	28.526	631.576
ZUIS Z-WOUTH IOTAL	209,928	4,221	132.311	442	132.089	-/02	44.930	1.924	2.010	2./40	708	Z0.3Z0	0.01.076

<sup>&</sup>lt;sup>a</sup> Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal

synfuel.

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

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

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

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

Pumped storage facility production minus energy used for pumping.

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

Wood and weed derived fields.

<sup>9</sup> Wood and wood-derived fuels.

h Municipal solid waste from biogenic sources, landfill gas, sludge waste, agricultural byproducts, and other biomass. Through 2000, also includes non-renewable waste (municipal solid waste from non-biogenic sources, and i Solar thermal and photovoltaic (PV) energy.

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

k Through 1988, data are for electric utilities only. Beginning in 1989, data are

K Through 1988, data are for electric utilities only. Beginning in 1989, data are for electric utilites 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. • See Note 1, "Coverage of Electricity Statistics," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia. Web Page: See http://www.eia.gov/totalenergy/data/monthly/#electricity (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.

beginning in 1973.
Sources: See end of section.

Table 7.2c Electricity Net Generation: Commercial and Industrial Sectors

(Subset of Table 7.2a; Million Kilowatthours)

	Commercial Sector <sup>a</sup>						Industrial Sector <sup>b</sup>								
			N	Biomass				Nature!	0.1	Hydro-	Biomass				
	Coalc	Petro- leum <sup>d</sup>	Natural Gas <sup>e</sup>	Waste <sup>f</sup>	Totalg	Coalc	Petro- leum <sup>d</sup>	Natural Gas <sup>e</sup>	Other Gases <sup>h</sup>	electric Power <sup>i</sup>	Wood <sup>j</sup>	Waste <sup>f</sup>	Total <sup>k</sup>		
1950 Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	4,946	NA	NA	4,946		
1955 Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	3,261	NA	NA	3,261		
1960 Total	NA	NA	NA	NA	NA	NA.	NA	NA	NA	3,607	NA	NA	3,607		
1965 Total	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	3,134 3,244	NA NA	NA NA	3,134		
1970 Total 1975 Total	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	3,244	NA NA	NA NA	3,244 3,106		
1980 Total	NA	NA	NA	NA	NA	NA NA	NA	NA	NA	3,161	NA	NA	3,161		
1985 Total	NA	NA	NA	NA	NA	NA.	NA	NA	NA	3,161	NA	NA	3,161		
1990 Total	796	589	3,272	812	5,837	21,107	7,008	60,007	9,641	2,975	25,379	949	130,830		
1995 Total	998	379	5,162	1,519	8,232	22,372	6,030	71,717	11,943	5,304	28,868	900	151,025		
2000 Total	1,097	432	4,262	1,985	7,903	22,056	5,597	78,798	11,927	4,135	28,652	839	156,673		
2001 Total	995	438	4,434	1,007	7,416	20,135	5,293	79,755	8,454	3,145 3.825	26,888	596	149,175		
2002 Total 2003 Total	992 1,206	431 423	4,310 3,899	1,053 1,289	7,415 7,496	21,525 19,817	4,403 5,285	79,013 78,705	9,493 12,953	3,825 4,222	29,643 27,988	846 715	152,580 154,530		
2004 Total	1,340	499	3,969	1,562	8,270	19,773	5,263	78,959	11.684	3,248	28,367	713	153,925		
2005 Total	1,353	375	4,249	1.657	8.492	19,466	5.368	72.882	9.687	3.195	28,271	733	144,739		
2006 Total	1,310	235	4,355	1,599	8,371	19,464	4,223	77,669	9,923	2,899	28,400	572	148,254		
2007 Total	1,371	189	4,257	1,599	8,273	16,694	4,243	77,580	9,411	1,590	28,287	631	143,128		
2008 Total	1,261	142	4,188	1,534	7,926	15,703	3,219	76,421	8,507	1,676	26,641	821	137,113		
2009 Total	1,096	163	4,225	1,748	8,165	13,686	2,963	75,748	7,574	1,868	25,292	740	132,329		
2010 Total 2011 Total	1,111 1,049	124 89	4,725 5,487	1,672 2,315	8,592 10,080	18,441 14,490	2,258 1,891	81,583 81,911	8,343 8,624	1,668 1,799	25,706 26,691	869 917	144,082 141,875		
<b>2012</b> January	83	15	543	186	916	1.135	330	7.096	754	275	2.340	62	12.425		
February	81	16	531	182	900	1,017	214	6,771	788	240	2,197	72	11,699		
March	74	12	537	188	911	1,041	225	6,713	815	234	2,140	82	11,681		
April	66	17	510	187	888	935	199	6,571	803	178	1,986	79	11,158		
May	69 79	12 21	541	193 180	930 975	984 1,035	191 207	7,186	758 719	212 175	2,122	75 62	11,988		
June July	83	19	585 716	198	1,135	1,035	234	7,327 8,013	719	175	2,144 2,303	79	12,091 13,190		
August	81	19	620	208	1,133	1,159	279	7,956	784	152	2,303	85	13,160		
September	66	15	537	196	930	1,026	250	7,209	672	159	2,277	68	12,069		
October	57	20	513	200	904	990	229	7,006	670	192	2,235	94	11,841		
November	67	16	488	199	876	1,012	280	7,080	664	213	2,277	96	12,052		
December	77	16	483	203	888	1,079	283	7,573	709	186	2,394	93	12,751		
Total	883	196	6,603	2,319	11,301	12,603	2,922	86,500	8,913	2,353	26,725	948	146,107		
<b>2013</b> January	76	34	558	202	980	1,020	246	7,634	755	317	2,406	86	12,795		
February	83	25	503	184	904	986	150	6,880	678	345	2,230	79	11,671		
March	72 55	16 16	516 440	217 195	955 841	1,099 956	229 227	7,419 6,674	769 700	298 253	2,359 2.029	81 81	12,589 11.220		
April May	67	18	440	200	909	1.097	256	7,093	700 785	320	2,029	78	12,143		
June	75	17	512	205	948	1,142	235	7,192	731	295	2,300	84	12,306		
July	77	27	606	213	1,065	1,233	251	7,628	827	312	2,429	88	13,121		
August	66	17	587	218	1,041	1,125	251	7,539	823	235	2,412	92	12,864		
September	54	16	543	212	972	1,075	221	6,984	734	230	2,303	85	12,003		
October	54 51	16 16	500 528	218 209	923 928	1,059 1,090	185 117	7,052 7,385	671	228 204	2,288 2,285	95 97	11,955 12,227		
November December	69	30	528 566	209 222	1.014	1,090	151	7,385	731 722	204 326	2,285	97 98	13.044		
Total	799	248	6,351	2,496	11,480	13,020	2,521	87,352	8,926	3,363	27,678	1,044	147,937		
<b>2014</b> January	105	128	564	213	1,137	1,225	222	7,476	643	344	2,367	89	12,694		
February 2-Month Total	97 <b>201</b>	44 <b>172</b>	516 <b>1,080</b>	177 <b>390</b>	943 <b>2,079</b>	1,121 <b>2,346</b>	182 <b>404</b>	6,583 <b>14,059</b>	519 <b>1,162</b>	247 <b>591</b>	2,154 <b>4,521</b>	69 <b>158</b>	11,166 <b>23,859</b>		
2013 2-Month Total	159	59	1,061	387	1,884	2,006	396	14,514	1,433	663	4,637	165	24,466		
2012 2-Month Total	164	30	1,074	367	1,816	2,152	544	13,867	1,542	515	4,538	135	24,125		

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

fossil fuels. Through 2010, also includes propane gas. Conventional hydroelectric power.

j Wood and wood-derived fuels.

plants.

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

c Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal

synfuel.

<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.

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

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

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

displayed.

h Blast furnace gas, and other manufactured and waste gases derived from

I vood and wood-derived ruels.

I 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).

tire-derived fuels).

NA=Not available.

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

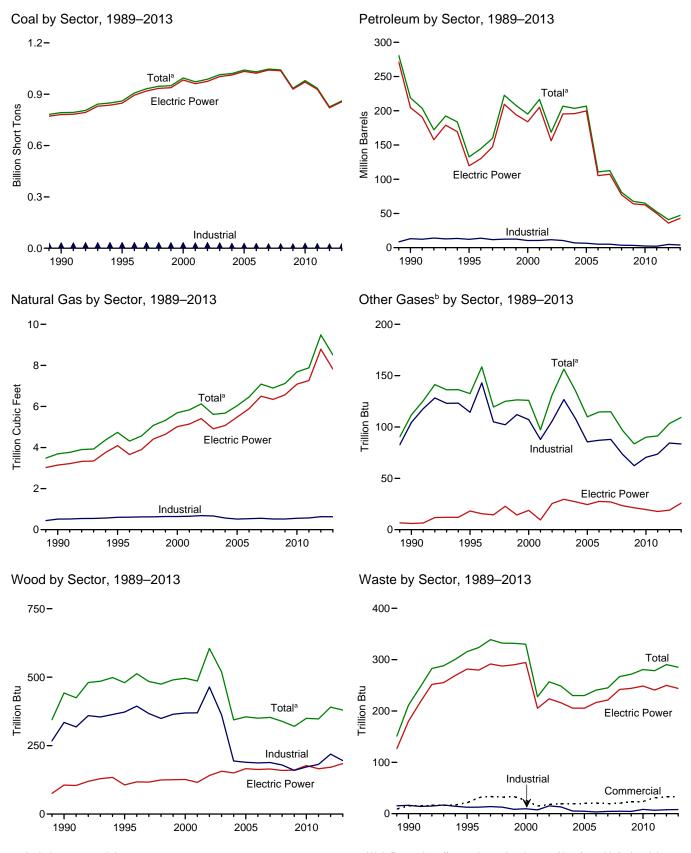
Totals may not equal sum of components due to independent rounding.

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

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

Sources: See end of section.

Figure 7.3 Consumption of Selected Combustible Fuels for Electricity Generation



<sup>&</sup>lt;sup>a</sup> Includes commercial sector.

Web Page: http://www.eia.gov/totalenergy/data/monthly/#electricity. Sources: Tables 7.3a–7.3c.

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

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

				Petroleum					Bion	nass	
	Coala	Distillate Fuel Oil <sup>b</sup>	Residual Fuel Oil <sup>c</sup>	Other Liquids <sup>d</sup>	Petroleum Coke <sup>e</sup>	Totale	Natural Gas <sup>f</sup>	Other Gases <sup>g</sup>	Woodh	Waste <sup>i</sup>	Other <sup>j</sup>
	Thousand Short Tons	Th	nousand Barre	els	Thousand Short Tons	Thousand Barrels	Billion Cubic Feet	Trillion Btu			
1950 Total	91,871 143,759 176,685 244,788 320,182 405,962 569,274 693,841 792,457 860,594 994,933 972,691 987,583 1,014,058 1,020,523 1,041,448 1,030,556 1,046,795	5,423 5,412 3,824 4,928 24,123 38,907 29,051 14,635 18,143 19,615 31,675 31,150 23,286 29,672 20,163 20,651 13,174 15,683 12,832 12,658 14,050	69,998 69,862 84,371 110,274 311,381 467,221 391,163 158,779 190,652 95,507 143,381 165,312 109,235 142,518 142,088 141,518 38,473 63,833 38,191 28,576 23,997 14,251	NA NA NA NA NA NA 437 680 1,450 855 1,894 2,947 2,856 2,968 2,174 2,917 2,822 2,328 2,056 1,844	NA NA NA NA 636 70 179 231 1,914 3,355 3,744 3,871 6,836 6,303 7,677 8,330 7,677 8,330 7,677 4,821 4,821 4,994 5,012	75,421 75,274 88,195 115,203 338,686 506,479 421,110 174,571 218,800 132,578 195,228 216,672 168,597 206,653 203,494 206,785 110,634 112,615 80,932 67,668 65,071 52,387	629 1,153 1,725 2,321 3,932 3,682 3,682 4,738 5,691 5,832 6,126 5,675 6,036 6,462 7,089 6,896 7,121 7,680	NA NA NA NA NA NA 112 133 126 97 131 156 135 110 115 97 84 90	5 3 2 2 3 3 1 1 (s) 3 3 8 442 480 496 486 605 519 344 3550 3553 339 320 330 348	NA N	NA NA NA NA NA NA NA 36 42 46 160 191 193 183 172 168 172 168 172 172 170 184 205
Pebruary  February  March  April  May  June  July  August  September  October  November  December  Total	62,801 71,656 86,516 82,676 69,478 66,486	856 666 627 701 885 877 954 752 656 703 749 857 <b>9,285</b>	1,019 775 889 811 850 1,305 1,585 1,134 839 912 804 832 11,755	57 103 114 100 129 137 143 128 95 107 94 357 <b>1,565</b>	476 363 226 212 255 280 307 338 314 280 314 308 3,675	4,315 3,358 2,762 2,674 3,140 3,719 4,220 3,704 3,161 3,124 3,215 3,585 40,977	677 672 704 742 843 912 1,118 1,039 835 700 612 630 <b>9,485</b>	9 9 9 9 9 8 8 8 8 8 8 8	35 33 31 28 30 32 35 35 33 32 32 32 35	24 22 24 23 24 24 25 25 25 24 25 26 290	17 16 17 16 18 18 18 17 17 17
2013 January February March April May June July August September October November December Total	70,395 60,899 64,737 75,178 83,223 81,984 72,704 66,359 65,902	1,014 676 654 661 816 681 1,085 693 661 606 733 1,016 9,294	1,569 1,010 832 827 817 903 1,466 979 831 801 744 1,174 11,952	231 134 96 110 116 92 156 103 110 87 106 163 <b>1,505</b>	382 313 371 347 475 481 480 495 452 408 309 378 4,893	4,726 3,386 3,435 3,334 4,123 4,082 5,108 4,251 3,862 3,535 3,535 4,245 4,245	660 593 632 587 641 765 939 929 777 665 629 694 <b>8,512</b>	9 8 9 8 10 10 10 9 10 9 10	32 29 32 25 30 32 34 35 32 32 32 33 33 35	23 21 24 23 24 25 24 23 24 23 26 285	14 13 15 14 15 16 16 16 15 15 14 16
2014 January	83,710 76,350 <b>160,061</b>	4,918 1,294 <b>6,211</b>	4,426 1,552 <b>5,978</b>	1,032 179 <b>1,211</b>	446 376 <b>822</b>	12,607 4,905 <b>17,511</b>	689 573 <b>1,262</b>	9 7 16	36 33 <b>69</b>	23 20 <b>44</b>	14 12 <b>27</b>
2013 2-Month Total 2012 2-Month Total	142,126 133,718	1,690 1,522	2,579 1,793	365 161	696 839	8,112 7,673	1,254 1,349	16 18	61 67	44 46	28 33

<sup>&</sup>lt;sup>a</sup> Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal

tire-derived fuels).

NA=Not available. (s)=Less than 0.5 trillion Btu.
Notes: • Data are for fuels consumed to produce electricity. Data also include fuels consumed to produce useful thermal output at a small number of electric utility combined-heat-and-power (CHP) plants. • See Note 1, "Coverage of Electricity Statistics," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of

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

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

Affilhatie, bitchillious coar, substitutinious coar, and the synfuel.

b Fuel oil nos. 1, 2, and 4. For 1949–1979, data are for gas turbine and internal combustion plant use of petroleum. For 1980–2000, electric utility data also include small amounts of kerosene and jet fuel.

c Fuel oil nos. 5 and 6. For 1949–1979, data are for steam plant use of petroleum. For 1980–2000, electric utility data also include a small amount of fuel

oil no. 4.

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

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

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

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

h Wood and wood-derived fuels.

<sup>&#</sup>x27; wood and wood-derived ruels.

' 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

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

k Through 1988, data are for electric utilities only. Beginning in 1989, data are

for electric utilities, independent power producers, commercial plants, and industrial

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

				Petroleum					Bion	nass	
	Coala	Distillate Fuel Oil <sup>b</sup>	Residual Fuel Oil <sup>c</sup>	Other Liquids <sup>d</sup>	Petroleum Coke <sup>e</sup>	Totale	Natural Gas <sup>f</sup>	Other Gases <sup>g</sup>	Woodh	Waste <sup>i</sup>	<b>O</b> ther <sup>j</sup>
	Thousand Short Tons	Th	nousand Barre	ls	Thousand Short Tons	Thousand Barrels	Billion Cubic Feet		Trillio	n Btu	
1950 Total	91,871	5,423	69,998	NA	NA	75,421	629	NA	5	NA	NA
1955 Total	143,759	5,412	69,862	NA	NA	75,274	1,153	NA	3	NA	NA
1960 Total	176,685	3,824	84,371	NA	NA	88,195	1,725	NA	2	NA	NA
1965 Total	244,788	4,928	110,274	NA	NA	115,203	2,321	NA	3	NA	NA
1970 Total	320,182	24,123	311,381	NA	636	338,686	3,932	NA	1	2	NA
1975 Total	405,962	38,907	467,221	NA	70	506,479	3,158	NA	(s)	2	NA
1980 Total	569,274	29,051	391,163	NA	179	421,110	3,682	NA	3	2	NA
1985 Total	693,841	14.635	158,779	NA	231	174,571	3.044	NA	8	7	NA
1990 Total	781,301	16,394	183,285	25	1,008	204,745	3,147	6	106	180	(s)
1995 Total	847,854	18,066	88,895	441	2,452	119,663	4,094	18	106	282	2
2000 Total	982,713	29,722	138,047	403	3,155	183,946	5,014	19	126	294	1
2001 Total	961,523	29,056	159,150	374	3,308	205,119	5,142	9	116	205	109
2002 Total	975,251	21,810	104,577	1,243	5,705	156,154	5,408	25	141	224	137
	1,003,036	27,441	137,361	1,937	5,719	195,336	4,909	30	156	216	136
	1,012,459	18,793	138,831	2,511	7,135	195,809	5,075	27	150	206	131
	1,033,567	19,450	138,337	2,591	7,877	199,760	5,485	24	166	205	116
	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
	1,036,891	12,318	37,222	2,608	5,000	77,149	6,342	23	159	242	122
	929,692	11,848	27,768	2,110	4,485	64,151	6,567	21	160	244	115
	971,245	13,677	23,560	1,848	4,679	62,477	7,085	20	177	249	116
	928,857	10,961	13,861	1,655	4,726	50,105	7,265	18	166	241	133
2012 January	70.305	809	965	38	389	3,759	621	2	15	20	11
February March April May June July August September October November December Total	70,305 62,572 57,053 51,427 62,417 71,251 86,036 82,209 69,074 66,104 69,521 72,791 820,762	809 649 607 683 868 853 926 726 634 681 728 835 <b>9,000</b>	965 848 778 803 1,278 1,547 1,099 807 868 769 795 11,292	38 80 93 82 112 121 127 110 80 88 78 331 <b>1,339</b>	389 307 168 157 200 222 244 257 241 220 229 226 <b>2,861</b>	3,759 2,997 2,388 2,328 2,784 3,364 3,821 3,222 2,726 2,735 2,725 2,722 3,092 35,937	621 619 650 689 785 852 1,052 974 777 644 556 571 <b>8,788</b>	2 2 2 2 2 2 2 2 1 1 1 1 2 1 <b>9</b>	15 14 11 13 15 16 16 15 13 14 15	20 20 20 21 21 21 22 22 20 21 21 22 250	11 10 11 11 12 12 11 11 11 11 11 11 132
February March April May June July August September October November December Total	74,596 66,767 69,973 60,534 64,318 74,740 82,750 81,553 72,293 65,968 65,509 76,857 <b>855,856</b>	967 636 639 796 662 1,053 668 643 587 716 998 <b>9,044</b>	963 801 785 871 1,419 949 807 776 718 1,121	129 88 100 99 86 148 95 101 82 97 150 <b>1,393</b>	323 284 305 281 403 412 410 426 387 356 279 342 4,207	4,317 3,052 2,943 3,696 3,677 4,669 3,842 3,486 3,226 2,925 3,978 42,981	538 574 535 586 708 878 869 723 610 571 633 <b>7,825</b>	1 2 2 2 2 2 2 3 2 2 3 3 2 2 2 2 2 2 2 2	15 10 14 15 10 14 15 17 17 16 16 17 18	20 20 20 21 21 22 20 20 20 20 20 23 244	9 11 10 11 11 12 11 11 10 10 12 127
2014 January	83,248	4,833	4,219	1,013	404	12,087	631	3	19	20	10
February	75,927	1,263	1,474	167	332	4,564	521	2	18	17	9
2-Month Total	<b>159,175</b>	<b>6,096</b>	<b>5,693</b>	<b>1,181</b>	<b>736</b>	<b>16,651</b>	<b>1,152</b>	<b>5</b>	<b>37</b>	<b>37</b>	<b>19</b>
2013 2-Month Total	141,362	1,646	2,460	346	607	7,488	1,139	3	29	37	19
2012 2-Month Total	132,877	1,458	1,699	117	696	6,756	1,240	3	30	39	21

<sup>&</sup>lt;sup>a</sup> Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal

k Through 1988, data are for electric utilities only. Beginning in 1989, data are for electric utilities and independent power producers. NA=Not available. (s)=Less than 0.5 trillion Btu. Notes: • Data are for fuels consumed to produce electricity. Data also include fuels consumed to produce useful thermal output at a small number of electric utility combined-heat-and-power (CHP) plants. • The electric power sector comprises electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity or electricity and heat, to the public. • See Note 1, "Coverage of Electricity Statistics," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia. Web Page: See http://www.eia.gov/totalenergy/data/monthly/#electricity (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.

beginning in 1973.
Sources: See end of section.

Aftirracite, biturillinus oca, substantial synfuel.

b Fuel oil nos. 1, 2, and 4. For 1949–1979, data are for gas turbine and internal combustion plant use of petroleum. For 1980–2000, electric utility data also include small amounts of kerosene and jet fuel.

c Fuel oil nos. 5 and 6. For 1949–1979, data are for steam plant use of petroleum. For 1980–2000, electric utility data also include a small amount of fuel oil no 4.

oil no. 4.

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

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

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

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

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

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

j Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, miscellaneous technologies, and, beginning in 2001, non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).
k Through 1988, data are for electric utilities only. Beginning in 1989, data are

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

		Commerci	ial Sectora				Indu	strial Sector	b		
			Natural	Biomass			Natural	Other	Bior	nass	
	Coalc	Petroleum <sup>d</sup>	Gase	Waste <sup>f</sup>	Coalc	Petroleum <sup>d</sup>	Gase	Gases	Woodh	Waste <sup>f</sup>	Other <sup>i</sup>
	Thousand Short Tons	Thousand Barrels	Billion Cubic Feet	Trillion Btu	Thousand Short Tons	Thousand Barrels	Billion Cubic Feet		Trillio	n Btu	
1990 Total	417	953	28	15	10,740	13,103	517	104	335	16	36
	569	649	43	21	12,171	12,265	601	114	373	13	40
	514	823	37	26	11,706	10,459	640	107	369	10	45
	532	1,023	36	15	10,636	10,530	654	88	370	7	44
	477	834	33	18	11,855	11,608	685	106	464	15	43
2003 Total	582	894	38	19	10,440	10,424	668	127	362	13	46
	377	766	33	19	7,687	6,919	566	108	194	5	41
	377	585	34	20	7,504	6,440	518	85	189	5	46
	347	333	35	21	7,408	5,066	536	87	187	3	45
	361	258	34	19	5,089	5,041	554	88	188	4	41
2008 Total	369	166	33	20	5,075	3,617	520	73	179	5	39
2009 Total	317	190	34	23	4,674	3,328	520	62	160	4	42
2010 Total	314	172	39	24	8,125	2,422	555	70	172	8	55
2011 Total	347	137	47	31	5,735	2,145	572	74	182	7	57
2012 January  February  March  April	29 27 26 23	29 19 17 17	5 5 5 5	3 3 3 3	410 374 388 356	528 342 357 329	51 49 48 48	7 7 8 7	19 18 17 17	1 1 1	4 4 4 4
May June July	22 26 28	25 24 33 28	5 6 7	3 3 3	361 379 452	332 332 367	53 55 59	7 7 7 7	17 18 19	1 1 1	5 4 5
August September October November	28 24 21 25	19 22 24	6 5 5 4	3 3 3 3	439 381 361 366	454 417 366 469	59 53 52 51	7 7 6 6	19 18 18 19	1 1 1 1	5 4 4 5
December	27	24	4	3	398	469	55	7	20	1	4
Total	<b>307</b>	<b>279</b>	<b>63</b>	<b>33</b>	<b>4,665</b>	<b>4,761</b>	<b>633</b>	<b>84</b>	<b>219</b>	<b>8</b>	<b>54</b>
2013 January	31	54	5	3	359	355	55	7	17	1	3
February	28	32	5	3	347	183	50	6	16	1	3
March	29	15	5	3	393	368	53	7	16	1	3
April May June July	23 26 28 28	17 19 21 42	4 5 5 6	3 3 3 3	342 394 410 444	374 408 384 397	48 50 52 55	6 7 7 8	15 16 17 17	1 1 1	3 3 3 3
August	26	20	6	3	404	388	55	8	17	1	4
September	23	18	5	3	388	357	50	7	16	1	3
October	20	15	5	3	371	294	50	6	16	1	3
November	22	17	5	3	371	185	53	7	16	1	3
December	25	41	5	3	401	225	56	6	17	1	3
<b>Total</b>	<b>309</b>	<b>312</b>	<b>60</b>	<b>33</b>	<b>4,624</b>	<b>3,921</b>	<b>628</b>	<b>84</b>	<b>195</b>	8	<b>37</b>
2014 January	34	210	5	3	429	310	53	6	16	1	3
February	32	68	5	2	391	272	47	5	15	1	2
2-Month Total	<b>66</b>	<b>279</b>	<b>10</b>	<b>5</b>	<b>820</b>	<b>582</b>	<b>101</b>	<b>11</b>	<b>32</b>	<b>1</b>	<b>5</b>
2013 2-Month Total	59	86	10	5	705	539	105	13	32	1	6
2012 2-Month Total	56	47	10	5	784	869	100	14	37	1	9

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

Geographic coverage is the bu states and the District of Communa.
 Web Page: See http://www.eia.gov/totalenergy/data/monthly/#electricity (Excel and CSV files) for all available annual and monthly data beginning in 1989.
 Sources: • 1989–1997: U.S. Energy Information Administration (EIA), Form EIA-867, "Annual Nonutility Power Producer Report." • 1998–2000: EIA, Form EIA-80B, "Annual Electric Generator Report—Nonutility." • 2001–2003: EIA, Form EIA-906, "Power Plant Report." • 2004–2007: EIA, Form EIA-906, "Power Plant Report." • 2008 forward: EIA, Form EIA-920, "Combined Heat and Power Plant Report."
 • 2008 forward: EIA, Form EIA-923, "Power Plant Operations Report."

plants.

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

plants.

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

Anthracite, bituminous coai, substantinuous coai, s non-renewable waste (וועוווען אינויט אינויט

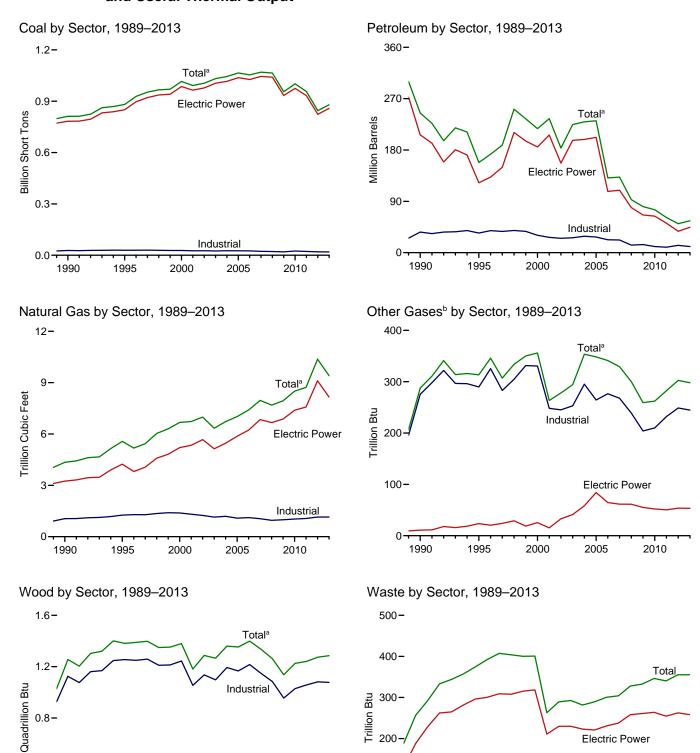
i Batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, miscellaneous technologies, and, beginning in 2001, non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

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

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

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

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



1995

2000

Electric Power

2010

2005

2000

Commercial

Industrial

1995

Electric Power

2010

2005

0.4 -

0.0

1990

200

100

0

1990

<sup>&</sup>lt;sup>a</sup> Includes commercial sector.

<sup>&</sup>lt;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)

				Petroleum					Bion	nass	
	Coala	Distillate Fuel Oil <sup>b</sup>	Residual Fuel Oil <sup>c</sup>	Other Liquids <sup>d</sup>	Petroleum Coke <sup>e</sup>	Totale	Natural Gas <sup>f</sup>	Other Gases <sup>9</sup>	Woodh	Waste <sup>i</sup>	Other <sup>j</sup>
	Thousand Short Tons	Ti	nousand Barre	els	Thousand Short Tons	Thousand Barrels	Billion Cubic Feet		Trillio	n Btu	
1950 Total	91,871	5,423	69,998	NA	NA	75,421	629	NA	5	NA	NA
1955 Total	143,759	5,412	69,862	NA	NA	75,274	1,153	NA	3	NA	NA
1960 Total	176,685	3,824	84,371	NA	NA	88,195	1,725	NA	2	NA	NA
1965 Total	244,788	4,928	110,274	NA	NA	115,203	2,321	NA	3	NA	NA
1970 Total	320,182	24,123	311,381	NA	636	338,686	3,932	NA	1	2	NA
1975 Total	405,962	38,907	467,221	NA	70	506,479	3,158	NA	(s)	2	NA
1980 Total	569,274	29,051	391,163	NA	179	421,110	3,682	NA	3	2	NA
1985 Total	693,841	14,635	158,779	NA	231	174,571	3,044	NA	8	7	NA
1990 Total	811,538	20,194	209,081	1,332	2,832	244,765	4,346	288	1,256	257	86
1995 Total	881,012	21,697	112,168	1,322	4,590	158,140	5,572	313	1,382	374	97
2000 Total 2001 Total	1,015,398 991,635 1,005,144	34,572 33,724 24,749	156,673 177,137 118,637	2,904 1,418	4,669 4,532 7,353	217,494 234,940 183,409	6,677 6,731 6,986	356 263 278	1,380 1,182	401 263 289	109 229 252
2002 Total 2003 Total 2004 Total	1,031,778 1,044,798	31,825 23,520	152,859 157,478	3,257 4,576 4,764	7,067 8,721	224,593 229,364	6,337 6,727	294 353	1,287 1,266 1,360	293 282	262 254
2005 Total 2006 Total	1,065,281 1,053,783 1,069,606	24,446 14,655 17.042	156,915 69,846 74.616	4,270 3,396 4,237	9,113 8,622 7,299	231,193 131,005 132,389	7,021 7,404 7,962	348 341 329	1,353 1,399 1,336	289 300 304	237 247 239
2007 Total 2008 Total 2009 Total	1,064,503 955,190	14,137 14,800	43,477 33,672	3,765 3,218	6,314 5,828	92,948 80,830	7,689 7,938	300 259	1,263 1,137	328 333	212 228
2010 Total	1,001,411	15,247	26,944	2,777	6,053	75,231	8,502	262	1,226	346	237
2011 Total	956,470	11,735	16,877	2,540	6,092	61,610	8,724	282	1,241	340	261
2012 January	72,764	1,119	1,251	117	605	5,510	752	26	110	29	21
February	64,771	726	907	154	470	4,139	742	26	104	27	20
March	59,077	670	1,019	208	335	3,570	774	27	103	30	20
April	53,176	736	936	152	299	3,320	813	27	96	28	20
May	64,319	914	998	181	346	3,825	916	26	103	29	22
June	73,142	919	1,437	178	380	4,434	987	25	104	28	22
July	88,115	986	1,734	185	426	5,034	1,201	26	109	30	22
August	84,307	779	1,286	171	471	4,590	1,119	26	111	30	22
September	70,951	685	970	130	430	3,935	907	23	107	28	21
October	68,030	735	1,104	154	397	3,979	771	23	106	31	21
November	71,512	781	956	138	435	4,052	681	23	107	32	21
December	74,901	896	974	418	426	4,416	706	25	112	33	21
Total 2013 January	<b>845,066</b> 76,673	<b>9,945</b> 1,079	<b>13,571</b> 1,745	<b>2,185</b> 274	<b>5,021</b> 525	<b>50,805</b> 5,724	<b>10,371</b> 740	<b>302</b> 25	<b>1,273</b> 111	<b>355</b>	<b>252</b> 17
February	68,685	733	1,185	158	440	4,278	664	23	99	27	16
March	72,066	711	983	124	476	4,196	708	25	108	30	18
April	62,367	721	988	150	451	4,115	659	24	96	28	17
May	66,235	870	986	155	526	4,639	714	25	103	29	18
June	76,646	737	1,060	119	538	4,605	835	24	106	30	18
July	84,745	1,148	1,633	180	551	5,715	1,013	27	117	31	19
August	83,487	759	1,134	127	562	4,831	1,006	26	112	29	18
September	74,138	701	969	139	520	4,411	849	25	105	28	18
October	67,909	647	950	110	517	4,292	738	25	106	30	17
November	67,487	778	887	130	420	3,895	704	24	109	29	16
December	78,938	1,062	1,352	207	511	5,174	777	25	114	33	18
<b>Total</b>	<b>879,377</b>	<b>9,946</b>	<b>13,871</b>	<b>1,872</b>	<b>6,037</b>	<b>55,874</b>	<b>9,407</b>	<b>298</b>	<b>1,286</b>	<b>355</b>	<b>209</b>
2014 January	85,411	5,145	4,781	1,125	530	13,703	772	24	110	29	17
February	77,935	1,372	1,776	218	429	5,514	651	22	101	25	14
2-Month Total	<b>163,346</b>	<b>6,517</b>	<b>6,557</b>	<b>1,343</b>	<b>960</b>	<b>19,217</b>	<b>1,424</b>	<b>46</b>	<b>211</b>	<b>55</b>	<b>31</b>
2013 2-Month Total	145,359	1,812	2,930	431	966	10,001	1,404	48	210	57	32
2012 2-Month Total	137,536	1,845	2,158	270	1,075	9,649	1,495	52	214	56	41

<sup>&</sup>lt;sup>a</sup> Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal

non-renewable waste (municipal solid waste from non-biogenic sources, and

Antinacite, bitaliminus socia, services, professional and internal synfuel.

b Fuel oil nos. 1, 2, and 4. For 1949–1979, data are for gas turbine and internal combustion plant use of petroleum. For 1980–2000, electric utility data also include small amounts of kerosene and jet fuel.

c Fuel oil nos. 5 and 6. For 1949–1979, data are for steam plant use of petroleum. For 1980–2000, electric utility data also include a small amount of fuel oil po. 4

oil no. 4.

d Jet fuel, kerosene, other petroleum liquids, waste oil, and, beginning in 2011,

Furticleum coke is converted from short tons to barrels by multiplying by 5.

Matural gas, plus a small amount of supplemental gaseous fuels.

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

Mood and wood-derived finels

il fuels. I hrough 2010, and include:
Wood and wood-derived fuels.
Municipal solid waste from biogenic sources, landfill gas, sludge waste,
municipal byproducts, and other biomass. Through 2000, also includes agricultural byproducts, and other biomass.

non-renewable waste (municipal soilid waste irrorin non-piogenius sources, and tirre-derived fuels).

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

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

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

Notes: • See Note 1, "Coverage of Electricity Statistics," at end of section.

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

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

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

				Petroleum					Bior	nass	
	Coala	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>	Natural Gas <sup>f</sup>	Other Gases <sup>g</sup>	Woodh	Wastei	Other <sup>j</sup>
	Thousand Short Tons	Th	nousand Barre	els	Thousand Short Tons	Thousand Barrels	Billion Cubic Feet		Trillio	n Btu	
1950 Total 1955 Total 1960 Total 1965 Total 1960 Total 1960 Total 1970 Total 1970 Total 1975 Total 1985 Total 1985 Total 1985 Total 2000 Total 2001 Total 2001 Total 2003 Total 2004 Total 2005 Total 2006 Total 2007 Total 2007 Total 2008 Total 2008 Total 2009 Total 2011 Total	91,871 143,759 176,685 244,788 320,182 405,962 569,274 693,841 782,567 850,230 985,821 964,433 977,507 1,005,116 1,016,268 1,037,485 1,026,636 1,045,141 1,040,580 933,627 975,052 932,484	5,423 5,412 3,824 4,928 24,123 38,907 11,635 16,567 18,553 30,016 29,274 21,876 27,632 19,107 19,675 12,646 15,327 12,547 12,035 12,035 13,790 11,021	69,998 69,862 84,371 110,274 311,381 467,221 391,163 158,779 184,915 90,023 138,513 159,504 104,773 138,279 139,816 139,409 57,345 63,086 82,241 28,782 24,503 14,803	NA NA NA NA NA NA NA 26 499 454 377 1,267 2,026 2,713 2,685 1,870 2,594 2,670 2,210 2,210 1,877 1,658	NA NA NA NA 636 70 179 231 1,008 2,674 3,275 3,427 5,816 5,799 7,372 8,083 7,101 5,685 5,119 4,611 4,777 4,837	75,421 75,274 88,195 115,203 338,686 506,479 421,110 174,571 206,550 122,447 185,358 206,291 156,996 196,932 198,498 202,184 107,365 109,431 79,056 66,081 64,055 51,667	629 1,153 1,725 2,321 3,932 3,158 3,682 3,044 3,245 5,342 5,672 5,135 5,464 5,869 6,222 6,873 7,387 7,574	NA NA NA NA NA NA 11 25 15 33 41 58 65 61 55 52	5 3 2 3 1 (s) 3 8 129 125 134 126 150 167 165 185 185 186 177 180 196	NA NA NA NA NA 2 2 2 7 188 296 318 211 230 223 221 231 237 258 261 264 255	NA NA NA NA NA NA NA (s) 2 1 113 143 140 138 125 124 131 124 131
Page 2012 January February March April May June July August September October November December Total	70,594 62,804 57,266 51,593 62,648 71,480 86,283 82,484 69,309 66,343 69,740 73,009 <b>823,551</b>	834 667 610 686 873 856 931 729 637 685 732 839	1,057 796 898 841 883 1,364 1,624 1,178 884 951 850 877 12,203	38 80 93 82 112 121 127 110 80 88 78 331 <b>1,339</b>	400 318 178 166 211 228 253 267 250 229 238 236 2,974	3,930 3,131 2,493 2,439 2,924 3,481 3,949 3,353 2,852 2,866 2,851 3,226 37,495	649 645 674 714 812 880 1,082 1,004 803 669 580 600 <b>9,111</b>	5 4 5 5 5 4 4 5 5 5 4 4 4 5 5 5 4	17 16 16 13 14 16 18 18 16 15 15	22 20 22 21 22 22 23 23 21 22 23 23 24 24 262	12 11 12 11 12 12 12 13 12 12 12 12 12
2013 January February March April May June July August September October November December Total	74,798 66,944 70,214 60,725 64,544 74,964 82,986 81,788 72,493 66,163 65,688 77,043 858,351	997 672 644 646 803 668 1,059 673 648 593 722 1,005 <b>9,131</b>	1,547 1,028 882 882 870 950 1,503 1,033 895 866 799 1,207 12,464	218 129 88 101 99 86 148 95 101 82 97 150 1,394	333 293 315 291 412 418 419 436 395 366 288 351 <b>4,317</b>	4,429 3,293 3,190 3,084 4,805 3,980 3,618 3,370 3,060 4,117 44,572	629 565 601 561 613 734 906 898 749 636 598 662 <b>8,153</b>	4 4 4 4 4 5 5 5 5 5 5 5 5 5 5 5	17 15 17 12 16 17 19 20 18 18 19 20 207	22 19 22 21 22 22 22 21 21 21 22 21 24 24	11 10 11 11 12 12 13 12 11 11 11 11 12
2014 January	83,459 76,144 <b>159,603</b> <b>141,743</b> <b>133,398</b>	4,914 1,280 <b>6,194</b> 1,669 1,501	4,275 1,549 <b>5,824</b> <b>2,575</b> <b>1,853</b>	1,050 167 <b>1,217</b> 346 117	413 339 <b>751</b> <b>626</b> <b>718</b>	12,302 4,690 <b>16,992</b> <b>7,722</b> <b>7,061</b>	662 554 <b>1,216</b> <b>1,194</b> <b>1,293</b>	4 3 8 8	22 20 <b>43</b> 32 33	21 18 <b>39</b> <b>40</b> <b>42</b>	11 9 <b>20</b> 21 23

<sup>&</sup>lt;sup>a</sup> Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal

A Milliacite, bitchimicas ocas, synfuel.

b Fuel oil nos. 1, 2, and 4. For 1949–1979, data are for gas turbine and internal combustion plant use of petroleum. For 1980–2000, electric utility data also include small amounts of kerosene and jet fuel.

c Fuel oil nos. 5 and 6. For 1949–1979, data are for steam plant use of petroleum. For 1980–2000, electric utility data also include a small amount of fuel oil no. 4.

oil no. 4.

d 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).

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

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

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

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

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

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

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

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

Sources: See end of section.

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

		Commerci	ial Sectora				Indu	strial Sector	b		
			Natural	Biomass			Natural	Other	Biom	nass	
	Coalc	Petroleumd	Gase	Wastef	Coalc	Petroleumd	Gase	Gases	Woodh	Wastef	Other <sup>i</sup>
	Thousand Short Tons	Thousand Barrels	Billion Cubic Feet	Trillion Btu	Thousand Short Tons	Thousand Barrels	Billion Cubic Feet		Trillion	Btu	
1990 Total	1,191	2,056	46	28	27,781	36,159	1,055	275	1,125	41	86
1995 Total	1,419	1,245	78	40	29,363	34,448	1,258	290	1,125	38	95
2000 Total	1,547	1,615	85	47	28,031	30,520	1,386	331	1,244	35	108
2001 Total	1,448	1,832	79	25	25,755	26,817	1,310	248	1,054	27	101
2002 Total	1,405	1,250	74	26	26,232	25,163	1,240	245	1,136	34	92
2003 Total	1,816	1,449	58	29	24,846	26,212	1,144	253	1,097	34	103
2004 Total	1,917	2,009	72	34	26,613	28,857	1,191	295	1,193	24	94
2005 Total	1,922	1,630	68	34	25,875	27,380	1,084	264	1,166	34	94
2006 Total	1,886	935	68	36	25,262	22,706	1,115	277	1,216	33	102
2007 Total	1,927	752	70	31	22,537	22,207	1,050	268	1,148	36	98
2008 Total	2,021	671	66	34	21,902	13,222	955	239	1,084	35	60
2009 Total	1,798	521	76	36	19,766	14,228	990	204	955	35	82
2010 Total	1,720	437	86	36	24,638	10,740	1,029	210	1,029	47	91
2011 Total	1,668	333	87	43	22,319	9,610	1,063	232	1,057	43	94
2012 January	155	87	9	4	2,015	1,493	94	21	94	3	7
February	135	29	9	4	1,832	979	89	21	88	4	7
March	128	31	9	4	1,684	1,047	91	22	87	5	6
April	102	19	9	4	1,481	863	90	22	83	4	6
May	108	27	9	4	1,563	873	95	22	89	3	7
June	109	28	10	4	1,553	925	98	21	88	3	7
July	120	61	12	4	1,712	1,024	107	21	92	3	7
August	120	41	11	4	1,703	1,197	105	22	93	3	7
September	107	27	9	4	1,535	1,056	96	19	91	3	6
October	101	31	9	4	1,587	1,082	94	18	91	5	7
November	124	38	8	4	1,649	1,163	93	19	92	5	7
December	141 <b>1,450</b>	39 <b>457</b>	8 <b>111</b>	4 <b>45</b>	1,751 <b>20,065</b>	1,151 <b>12,853</b>	98	21 <b>249</b>	96 <b>1,082</b>	5 <b>47</b>	7 <b>81</b>
Total	1,450	437	1111	45	20,065	12,000	1,149	249	1,002	47	01
<b>2013</b> January	148	86	9	4	1,728	1,208	102	21	94	5	4
February	139	54	9	4	1,601	930	91	19	84	4	4
March	136	29	9	4	1,716	976	98	21	91	4	4
April	108	26	8	4	1,533	1,005	90	20	83	4	4
May	114	30	8	4	1,577	779	93	21	87	4	3
June	105 103	32 61	8 10	4	1,576 1.656	779 849	93 97	20 22	89 98	4	4
July August	103	36	10	4	1,594	849 816	97 98	22	98 92	4	4
September	100	33	8	4	1,545	759	91	20	87	4	4
October	98	28	8	4	1,647	894	93	20	88	4	4
November		30	9	4	1,679	805	97	19	90	4	4
December	134	69	10	4	1,760	988	105	20	94	5	3
Total	1,412	514	107	46	19,613	10,788	1,147	245	1,077	51	46
<b>2014</b> January	149	318	10	4	1.803	1.083	101	20	88	4	4
February	147	110	9	3	1,644	714	88	18	80	4	3
2-Month Total	296	428	19	8	3,447	1,797	189	38	168	8	7
2013 2-Month Total	287	140	18	8	3,329	2,139	193	40	177	9	7
2012 2-Month Total	290	115	18	7	3,847	2,472	183	43	181	7	13

<sup>&</sup>lt;sup>a</sup> Commercial combined-heat-and-power (CHP) and commercial electricity-only

plants.

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

<sup>&</sup>lt;sup>c</sup> Anthracite, bituminous coal, subbituminous coal, lignite, waste coal, and coal

synfuel.  $$^{\rm d}$  Distillate fuel oil, residual fuel oil, petroleum coke, jet fuel, kerosene, other petroleum, waste oil, and, beginning in 2011, propane.

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

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

<sup>&</sup>lt;sup>9</sup> Blast furnace gas, and other manufactured and waste gases derived from fossil fuels. Through 2010, also includes propane gas.

h Wood and wood-derived fuels.

<sup>&</sup>lt;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 1, "Coverage of Electricity Statistics," and Note 2, "Classification of Power Plants Into Energy-Use Sectors," at end of section.

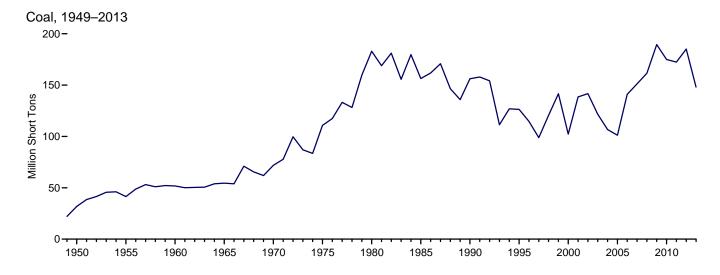
Totals may not equal sum of components due to independent rounding.
 Geographic coverage is the 50 states and the District of Columbia.

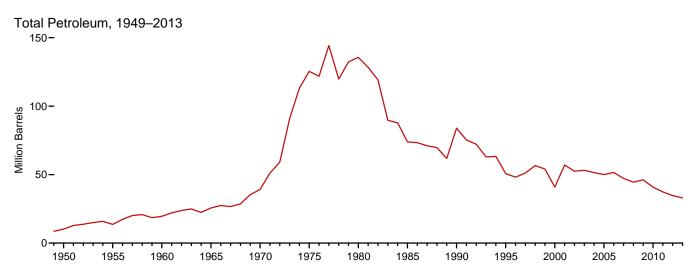
Web Page: See http://www.eia.gov/totalenergy/data/monthly/#electricity (Excel and CSV files) for all available annual and monthly data beginning in 1989

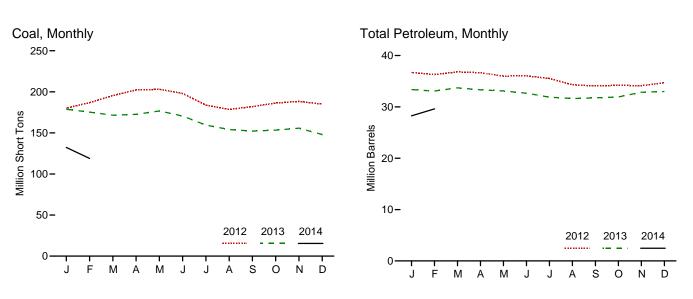
Sources: • 1989–1997: U.S. Energy Information Administration (EIA), Form EIA-867, "Annual Nonutility Power Producer Report." • 1998–2000: EIA, Form EIA-860B, "Annual Electric Generator Report—Nonutility." • 2001–2003: EIA, Form EIA-906, "Power Plant Report." • 2004–2007: EIA, Form EIA-906, "Power Plant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

<sup>• 2008</sup> forward: EIA, Form EIA-923, "Power Plant Operations Report."

Figure 7.5 Stocks of Coal and Petroleum: Electric Power Sector







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

Table 7.5 Stocks of Coal and Petroleum: Electric Power Sector

				Petroleum		
	Coal <sup>a</sup>	Distillate Fuel Oilb	Residual Fuel Oil <sup>c</sup>	Other Liquids <sup>d</sup>	Petroleum Coke <sup>e</sup>	Total <sup>e,f</sup>
	Thousand Short Tons		Thousand Barrels		Thousand Short Tons	Thousand Barrels
950 Year	31,842	NA	NA	NA	NA	10,201
955 Year		NA NA	NA NA	NA NA	NA NA	13,671
960 Year		NA NA	NA NA	NA NA	NA	19,572
965 Year		NA NA	NA NA	NA NA	NA NA	25.647
		NA NA	NA NA	NA NA	239	
970 Year					239 31	39,151
975 Year		16,432	108,825	NA		125,413
980 Year		30,023	105,351	NA	52	135,635
985 Year		16,386	57,304	NA	49	73,933
990 Year		16,471	67,030	NA	94	83,970
995 Year	126,304	15,392	35,102	NA	65	50,821
000 Year <sup>g</sup>	102.296	15,127	24.748	NA	211	40.932
001 Year		20,486	34,594	NA	390	57,031
002 Year		17,413	25,723	800	1.711	52,490
003 Year		19,153	25,820	779	1,484	53,170
004 Year		19,275	26,596	879	937	51,434
				1.012	530	50,062
005 Year		18,778	27,624			
006 Year		18,013	28,823	1,380	674	51,583
007 Year		18,395	24,136	1,902	554	47,203
008 Year		17,761	21,088	1,955	739	44,498
009 Year	189,467	17,886	19,068	2,257	1,394	46,181
010 Year	174,917	16,758	16,629	2,319	1,019	40,800
011 Year	172,387	16,649	15,491	2,707	508	37,387
012 January	180,091	16,682	15,242	2,736	409	36.704
February		16,500	15,150	2,780	374	36,300
March		16,413	15,324	2,815	453	36.817
April		16,371	15,154	2,850	457	36,661
May		16.290	14.814	2.868	406	36.002
			14,600		458	
June		16,248		2,899		36,038
July		16,700	13,872	2,930	406	35,534
August		16,123	13,668	2,827	336	34,302
September		16,059	13,524	2,734	353	34,081
October	186,396	16,019	13,406	2,757	406	34,212
November	188,291	16,031	13,221	2,793	416	34,126
December	185,116	16,433	12,999	2,792	495	34,698
013 January	178,747	16,329	12,161	2,673	442	33,373
February		16.315	11.935	2.631	442	33.090
March		16.209	12.869	2,600	406	33.710
April		16.009	12,451	2,592	455	33,326
May		15.894	12,451	2,588	442	33,105
					407	
June		15,898	12,134	2,594		32,663
July		15,696	11,677	2,551	394	31,895
August	154,119	15,637	12,157	2,534	260	31,628
September	152,185	15,511	12,212	2,493	309	31,760
October	153,352	15,652	12,384	2,451	291	31,941
November	155,754	15,793	12,911	2,466	338	32,858
December		15,735	12,863	2,446	390	32,994
014 January	132,324	14,605	9,923	2,242	298	28,260
February	- /-	15,384	10.623	2,278	265	29,609

Anthracite, bituminous coal, subbituminous coal, and lignite.

are at end of period. • See Note 1, "Coverage of Electricity Statistics," at end of

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

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

and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.
Sources: • 1949–September 1977: Federal Power Commission, Form FPC-4, "Monthly Power Plant Report." • October 1977–1981: Federal Energy Regulatory Commission, Form FPC-4, "Monthly Power Plant Report." • 1982–1988: U.S. Energy Information Administration (EIA), Form EIA-759, "Monthly Power Plant Report." • 1989–1997: EIA, Form EIA-759, "Monthly Power Plant Report." and Form EIA-867, "Annual Nonutility Power Producer Report." • 1998–2000: EIA, Form EIA-759, "Monthly Power Plant Report," and Form EIA-860B, "Annual Electric Generator Report.—Nonutility." • 2001–2003: EIA, Form EIA-906, "Power Plant Report," and Form EIA-920, "Combined Heat and Power Plant Report." • 2008 forward: EIA, Form EIA-923, "Power Plant Operations Report."

Full file of the f

oil no. 4.

d Jet fuel and kerosene. Through 2003, data also include a small amount of

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

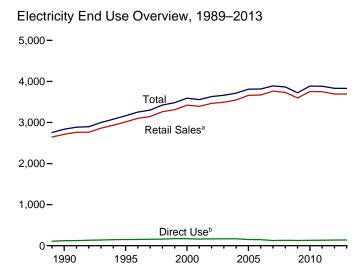
f Distillate fuel oil and residual fuel oil. Beginning in 1970, also includes petroleum coke. Beginning in 2002, also includes other liquids.

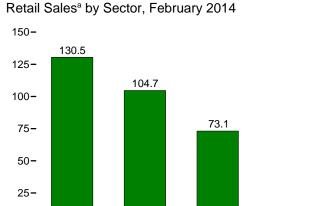
g Through 1998, data are for electric utilities only. Beginning in 1999, data are

for electric utilities and independent power producers. NA=Not available.

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

Figure 7.6 Electricity End Use (Billion Kilowatthours)



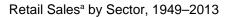


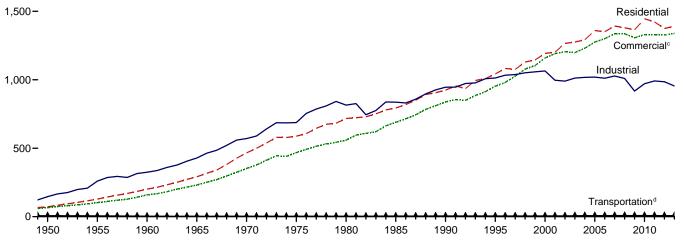
Commercial<sup>c</sup>

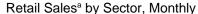
0.7

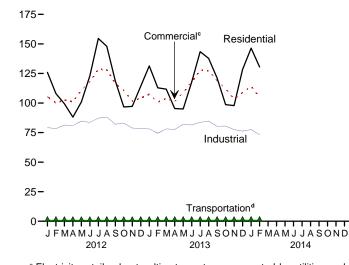
Transportation<sup>d</sup>

Industrial





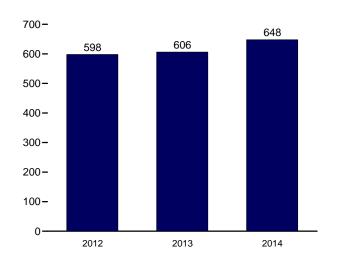




<sup>&</sup>lt;sup>a</sup> Electricity retail sales to ultimate customers reported by utilities and other energy service providers.

## Retail Sales<sup>a</sup> Total, February

Residential



departmental sales, and other sales to public authorites.

d Transportation sector, including sales to railroads and railways.

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

Source: Table 7.6.

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

<sup>&</sup>lt;sup>c</sup> Commercial sector, including public street and highway lighting, inter-

## Table 7.6 Electricity End Use

(Million Kilowatthours)

			Retail Sales <sup>a</sup>					Discont Retail Sale	
	Residential	Commercial <sup>b</sup>	Industrial <sup>C</sup>	Transpor- tation <sup>d</sup>	Total Retail Sales <sup>e</sup>	Direct Use <sup>f</sup>	Total End Use <sup>g</sup>	Commercial (Old) <sup>h</sup>	Other (Old) <sup>i</sup>
1950 Total	72,200	<sup>E</sup> 65.971	146,479	<sup>E</sup> 6.793	291,443	NA	291,443	50,637	22,127
1955 Total	128,401	E 102,547	259,974	<sup>E</sup> 5,826	496,748	NA	496,748	79,389	28.984
1960 Total	201,463	E 159,144	324,402	E 3,066	688,075	NA	688,075	130,702	31,508
1965 Total	291,013	E 231,126	428,727	<sup>E</sup> 2,923	953,789	NA	953,789	200,470	33,580
1970 Total	466,291	E 352,041	570,854	E 3,115	1,392,300	NA	1,392,300	306,703	48,452
975 Total	588,140	E 468,296	687,680	<sup>E</sup> 2,974	1,747,091	NA	1,747,091	403,049	68,222
980 Total	717,495	558,643	815,067	3,244	2,094,449	NA	2,094,449	488,155	73,732
985 Total	793,934	689,121	836,772	4,147	2,323,974	NA	2,323,974	605,989	87,279
990 Total	924,019	838,263	945,522	4,751	2,712,555	124,529	2,837,084	751,027	91,988
995 Total	1,042,501	953,117	1,012,693	4,975	3,013,287	150,677	3,163,963	862,685	95,407
000 Total	1,192,446	1,159,347	1,064,239	5,382	3,421,414	170,943	3,592,357	1,055,232	109,496
001 Total	1,201,607	1,190,518	996,609	5,724	3,394,458	162,649	3,557,107	1,083,069	113,174
002 Total	1,265,180	1,204,531	990,238	5.517	3,465,466	166,184	3,631,650	1,104,497	105,552
003 Total	1,275,824	1,198,728	1,012,373	6,810	3,493,734	168,295	3,662,029		
004 Total	1,291,982	1,230,425	1,017,850	7,224	3,547,479	168,470	3,715,949		
005 Total	1,359,227	1,275,079	1,019,156	7,506	3,660,969	150,016	3,810,984		
006 Total	1,351,520	1,299,744	1,011,298	7,358	3,669,919	146,927	3,816,845		
007 Total	1,392,241	1,336,315	1,027,832	8,173	3,764,561	125,670	3,890,231		
008 Total	1,379,981	1,335,981	1,009,300	7,700	3,732,962	132,197	3,865,159		
009 Total	1,364,474	1,307,168	917,442	7.781	3.596.865	126,938	3,723,803		
2010 Total	1,445,708	1,330,199	970.873	7.712	3.754.493	131,910	3.886.403		
2011 Total	1,422,801	1,328,057	991,316	7,672	3,749,846	132,754	3,882,600		
012 January	125,881	105,239	79,205	650	310,975	E 11,668	322,643		
February	107,975	100,080	78,298	629	286,983	E 11,018	298,001		
March	99,362	102,474	81,298	597	283,731	E 11,013	294,744		
April	88,103	101,037	81,030	590	270,760	E 10,535	281,294		
May	100,895	110,800	84,678	595	296,968	E 11,297	308,266		
June	122,934	118,009	83,619	597	325,160	E 11,427	336,586		
July	154,579	128,535	87,219	629	370,963	E 12,528	383,490		
August	147,941	128,106	88,105	633	364,785	E 12,423	377,208		
September	118,831	116,585	82,060	613	318,090	E 11,368	329,457		
October	96,669	110,471	82,996	599	290,735	E 11,146	301,882		
November	97,155	101,641	78,847	569	278,212	E 11,306	289,518		
December	114,188	104,122	78,360	619	297,288	E 11,927	309,216		
Total	1,374,515	1,327,101	985,714	7,320	3,694,650	137,657	3,832,306		
013 January	131.354	107.400	78.141	656	317.551	E 12.046	329.597		
February	112,857	100,722	74,453	649	288,681	E 10.997	299,678		
March	111.784	103,839	78.097	633	294.352	E 11.844	306.196		
April	95,297	101,385	77,633	623	274,937	E 10,548	285,484		
May	94,978	108.883	82.086	619	286,566	E 11,414	297,980		
June	117,708	117,670	81,411	629	317,418	E 11,591	329,010		
July	143,438	127,735	83,703	637	355,513	E 12.406	367,919		
August	137,734	127,735	84.701	634	350,437	E 12,160	362,598		
September	121,114	118,977	80,298	631	321,020	E 11,347	332,367		
October	98.656	112,171	80,463	589	291.879	E 11,347	303.141		
November	98,656	103,449	77,536	589 562	291,879	E 11,262	290.863		
December	128.357	103,449	77,536 76.205	665	279,359 314.076	E 12,294	326.369		
Total	1,391,090	1,338,448	9 <b>54,725</b>	7,525	3,691,789	E 139,414	3,831,203		
<b>014</b> January	146,435	114,230	77,616	724	339,006	E 12,095	351,100		
February	130,478	104,662	73,135	723	308,997	E 10,589	319,586		
2-Month Total	276,913	218,892	150,751	1,448	648,003	E 22,684	670,687		
013 2-Month Total	244,211	208,122	152,595	1,305	606,232	E 23,043	629,275		
2012 2-Month Total	233,857	205,319	157,503	1,279	597,958	<sup>E</sup> 22,686	620,644		

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

Deginning in 1996, other energy service providers.

Deginning in 1996, other energy service providers.

Discontinuation includes a continuation including public authorities.

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

Discontinuation includes agriculture and irrigation.

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

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.

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

Tommercial (Old)" is a discontinued series—data are for the commercial

sector, excluding public street and highway lighting, interdepartmental sales, and other sales to public authorities.

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

lighting, interdepartmental sales, other sales to public authorities, agriculture and irrigation, and transportation including railroads and railways.

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

Notes: • See Note 1, "Coverage of Electricity Statistics," at end of section.

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

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

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

# **Electricity**

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

## Note 2. Classification of Power Plants Into Energy-

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

http://www.eia.gov/survey/form/eia\_860/instructions.doc.

## **Table 7.1 Sources**

## **Net Generation, Electric Power Sector**

1949 forward: Table 7.2b.

## **Net Generation, Commercial and Industrial Sectors**

1949 forward: Table 7.2c.

## **Trade**

1949–September 1977: Unpublished Federal Power Commission data.

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

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

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

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

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

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

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

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

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

## **T&D** Losses and Unaccounted for

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

### **End Use**

1949 forward: Table 7.6.

## **Table 7.2b Sources**

1949–September 1977: Federal Power Commission, Form FPC-4, "Monthly Power Plant Report."

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

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

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

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

2001–2003: EIA, Form EIA-906, "Power Plant Report." 2004–2007: EIA, Form EIA-906, "Power Plant Report," and Form EIA-920, "Combined Heat and Power Plant Report."

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

## **Table 7.2c Sources**

# Industrial Sector, Hydroelectric Power, 1949–1988

1949–September 1977: Federal Power Commission (FPC), Form FPC-4, "Monthly Power Plant Report," for plants with generating capacity exceeding 10 megawatts, and FPC, Form FPC-12C, "Industrial Electric Generating Capacity," for all other plants.

October 1977–1978: Federal Energy Regulatory Commission (FERC), Form FPC-4, "Monthly Power Plant

Report," for plants with generating capacity exceeding 10 megawatts, and FERC, Form FPC-12C, "Industrial Electric Generating Capacity," for all other plants.

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

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

## All Data, 1989 Forward

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

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

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

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

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

## **Table 7.3b Sources**

1949–September 1977: Federal Power Commission, Form FPC-4, "Monthly Power Plant Report."

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

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

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

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

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

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

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

## **Table 7.4b Sources**

1949–September 1977: Federal Power Commission, Form FPC-4, "Monthly Power Plant Report."

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

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

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

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

2001–2003: EIA, Form EIA-906, "Power Plant Report." 2004–2007: EIA, Form EIA-906, "Power Plant Report,"

and Form EIA-920, "Combined Heat and Power Plant Report."

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

## **Table 7.6 Sources**

## Retail Sales, Residential and Industrial

1949–September 1977: Federal Power Commission, Form FPC-5, "Monthly Statement of Electric Operating Revenue and Income."

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

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

1983: U.S. Energy Information Administration (EIA), Form EIA-826, "Electric Utility Company Monthly Statement." 1984–2003: EIA, Form EIA-861, "Annual Electric Utility Report."

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

## Retail Sales, Commercial

1949–2002: Estimated by EIA as the sum of "Commercial (Old)" and the non-transportation portion of "Other (Old)." See estimation methodology at

 $http://www.eia.gov/state/seds/sep\_use/notes/use\_elec.pdf.$ 

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

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

## **Retail Sales, Transportation**

1949–2002: Estimated by EIA as the transportation portion of "Other (Old)." See estimation methodology at http://www.eia.gov/state/seds/sep\_use/notes/use\_elec.pdf.

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

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

## **Direct Use, Annual**

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

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

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

2013: Sum of monthly estimates.

## **Direct Use, Monthly**

1989 forward: Annual shares are calculated as annual direct use divided by annual commercial and industrial net generation (on Table 7.1). Then monthly direct use estimates are calculated as the annual share multiplied by the monthly commercial and industrial net generation values. For 2013 and 2014, the 2012 annual share is used.

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

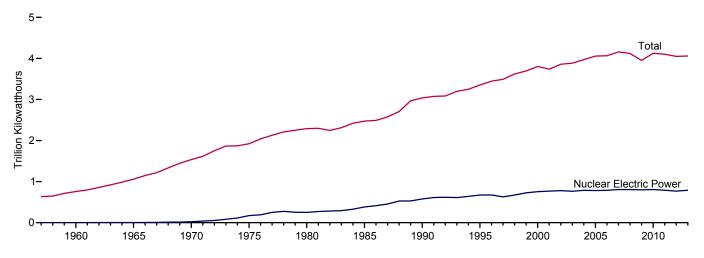
1949-2002: See sources for "Residential" and "Industrial."

THIS PAGE INTENTIONALLY LEFT BLANK

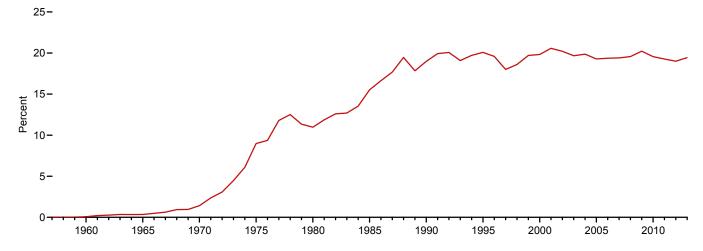
# 8. Nuclear Energy

Figure 8.1 Nuclear Energy Overview

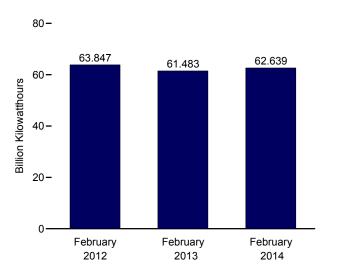
Electricity Net Generation, 1957-2013



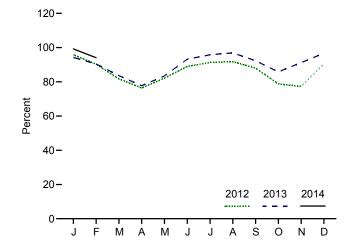
Nuclear Share of Electricity Net Generation, 1957–2013



**Nuclear Electricity Net Generation** 



Capacity Factor, Monthly



Web Page: http://www.eia.gov/totalenergy/data/monthly/#nuclear. Sources: Tables 7.2a and 8.1.

**Table 8.1 Nuclear Energy Overview** 

	Total Operable Units <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	Pe	rcent
1957 Total	1	0.055	10	(s)	NA
1960 Total	3	.411	518	`.1	NA
1965 Total	13	.793	3,657	.3	NA
1970 Total	20	7.004	21,804	1.4	NA
1975 Total	57	37.267	172,505	9.0	55.9
1980 Total	71	51.810	251,116	11.0	56.3
1985 Total	96	79.397	383,691	15.5	58.0
1990 Total	112	99.624	576,862	19.0	66.0
1995 Total	109	99.515	673,402	20.1	77.4
2000 Total	104	97.860	753,893	19.8	88.1
2001 Total	104	98.159	768,826	20.6	89.4
2002 Total	104	98.657	780,064	20.2	90.3
2003 Total	104	99.209	763,733	19.7	87.9
2004 Total	104	99.628	788,528	19.9	90.1
2005 Total	104	99.988	781,986	19.3	89.3
2006 Total	104	100.334	787,219	19.4	89.6
2007 Total	104	100.266	806,425	19.4	91.8
2008 Total	104	100.755	806,208	19.6	<sup>d</sup> 91.1
2009 Total	104	101.004	798,855	20.2	90.3
2010 Total	104	101.167	806,968	19.6	91.1
2011 Total	104	° 101.419	790,204	19.3	89.1
2012 January	104	101.602	72,381	21.3	95.8
February	104	101.602	63,847	20.6	90.3
March	104	101.602	61,729	20.0	81.7
April	104	101.602	55,871	18.9	76.4
May	104	101.625	62,081	18.4	82.1
June	104	101.625	65,140	18.1	89.0
July	104	101.747	69,129	16.7	91.3
August	104	101.856	69,602	17.6	91.8
September	104	101.856	64,511	19.3	88.0
October	104	101.856	59,743	19.2	78.8
November	104	101.885	56,713	18.5	77.3
December	104	101.885	68,584	20.5	90.5
Total	104	101.885	769,331	19.0	86.1
2013 January	104	E 101.923	71,406	20.5	E 94.2
February	103	E 101.063	61,483	19.9	E 90.5
March	103	E 101.172	62,947	19.4	E 83.6
April	103	E 101.468	56,767	19.0	E 77.7
May	102	E 101.147	62,848	19.5	E 83.4
June	100	E 98.997	66,430	18.6	E 93.2
July	100	E 98.997	70,539	17.9	€ 95.8
August	100	E 98.997	71,344	18.6	E 96.9
September	100	E 98.997	65,799	19.3	E 92.3
October	100	E 98.997	63,184	20.1	E 85.8
November	100	E 98.997	64,975	20.7	E 91.2
December	100	<sup>E</sup> 99.105	71,294	20.2	<sup>E</sup> 96.7
Total	100	E 99.105	789,017	19.4	E 90.1
2014 January	<sup>R</sup> 100	E 98.957	73,064	19.4	<sup>E</sup> 99.2
February	100	E 98.977	62,639	19.4	<sup>E</sup> 94.1
2-Month Total	100	<sup>E</sup> 98.977	135,703	19.4	<sup>E</sup> 96.8
2013 2-Month Total	103	E 101.063	132,889	20.2	<sup>E</sup> 92.4
2012 2-Month Total	104	101.602	136,228	21.0	93.1

<sup>&</sup>lt;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,"

Sources: See end of section.

at end of section.

b At end of per

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

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

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

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

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

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

Web Page: See http://www.eia.gov/totalenergy/data/monthly/#nuclear (Excel and CSV files) for all available annual data beginning in 1957 and monthly data beginning in 1973.

## **Nuclear Energy**

- **Note 1. Operable Nuclear Reactors.** A reactor is generally defined as operable while it possessed a full-power license from the Nuclear Regulatory Commission or its predecessor the Atomic Energy Commission, or equivalent permission to operate, at the end of the year or month shown. The definition is liberal in that it does not exclude units retaining full-power licenses during long, non-routine shutdowns that for a time rendered them unable to generate electricity. Examples are:
- (a) In 1985 the five then-active Tennessee Valley Authority (TVA) units (Browns Ferry 1, 2, and 3, and Sequoyah 1 and 2) were shut down under a regulatory forced outage. All five units were idle for several years, restarting in 2007, 1991, 1995, 1988, and 1988, respectively and were counted as operable during the shutdowns.
- (b) Shippingport was shut down from 1974 through 1976 for conversion to a light-water breeder reactor, but is counted as operable from 1957 until its retirement in 1982.
- (c) Calvert Cliffs 2 was shut down in 1989 and 1990 for replacement of pressurizer heater sleeves but is counted as operable during those years.

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

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

- **Note 2. Nuclear Capacity.** Nuclear generating units may have more than one type of net capacity rating, including the following:
- (a) Net Summer Capacity—The steady hourly output that generating equipment is expected to supply to system load, exclusive of auxiliary power, as demonstrated by test at the time of summer peak demand. Auxiliary power of a typical nuclear power plant is about 5 percent of gross generation.

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

Through 2007, the monthly capacity factors are calculated as the monthly nuclear electricity net generation divided by the maximum possible nuclear electricity net generation for that month. The maximum possible nuclear electricity net generation is the number of hours in the month (assuming 24-hour days, with no adjustment for changes to or from Daylight Savings Time) multiplied by the net summer capacity of operable nuclear generating units at the end of the month. That fraction is then multiplied by 100 to obtain a percentage. Annual capacity factors are calculated as the annual nuclear electricity net generation divided by the annual maximum possible nuclear electricity net generation (the sum of the monthly values for maximum possible nuclear electricity net generation). For the methodology used to calculate capacity factors beginning in 2008, see U.S. Energy Information Administration, *Electric* Power Monthly, Appendix C notes on "Average Capacity Factors."

### Table 8.1 Sources

# **Total Operable Units and Net Summer Capacity of Operable Units**

1957–1982: Compiled from various sources, primarily U.S. Department of Energy, Office of Nuclear Reactor Programs, "U.S. Central Station Nuclear Electric Generating Units: Significant Milestones."

1983 forward: U.S. Energy Information Administration (EIA), Form EIA-860, "Annual Electric Generator Report," and predecessor forms; Form EIA-860M, "Monthly Update to the Annual Electric Generator Report"; and monthly updates as appropriate. For a list of operable units as of November 2011, see http://www.eia.gov/nuclear/reactors/stats\_table1.html.

# **Nuclear Electricity Net Generation and Nuclear Share of Electricity Net Generation**

1957 forward: Table 7.2a.

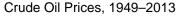
### **Capacity Factor**

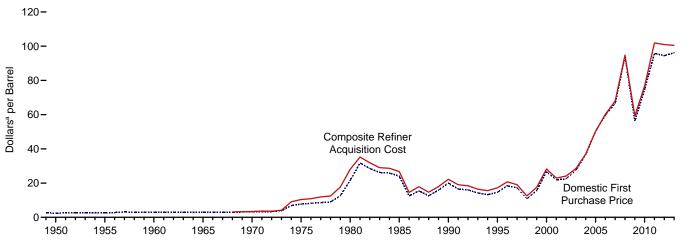
1973–2007: Calculated by EIA using the method described above in Note 2.

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

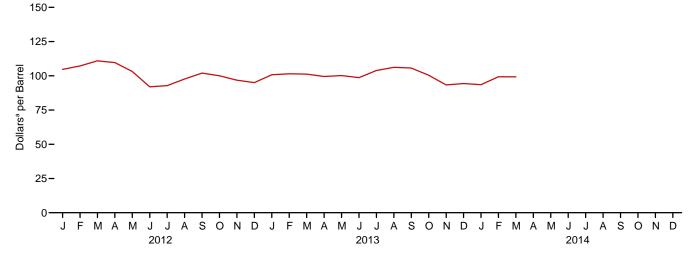
# 9. Energy Prices

Figure 9.1 Petroleum Prices

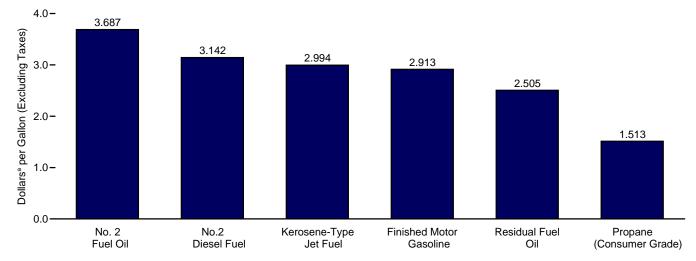




## Composite Refiner Acquisition Cost, Monthly



Refiner Prices to End Users: Selected Products, February 2014



<sup>&</sup>lt;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)

	Barrand's Floor	505000	1 1 1 1	R	efiner Acquisition Cos	st <sup>b</sup>
	Domestic First Purchase Price <sup>c</sup>	F.O.B. Cost of Imports <sup>d</sup>	Landed Cost of Imports <sup>e</sup>	Domestic	Imported	Composite
950 Average	2.51	NA	NA	NA	NA	NA
955 Average	2.77	NA	NA	NA	NA	NA
960 Average	2.88	NA	NA	NA	NA	NA
965 Average	2.86	NA	NA	NA	NA	NA
970 Average	3.18	NA	NA	E 3.46	<sup>E</sup> 2.96	<sup>E</sup> 3.40
75 Average	7.67	11.18	12.70	8.39	13.93	10.38
80 Average	21.59	32.37	33.67	24.23	33.89	28.07
85 Average	24.09	25.84	26.67	26.66	26.99	26.75
90 Average	20.03	20.37	21.13	22.59	21.76	22.22
95 Average	14.62	15.69	16.78	17.33	17.14	17.23
00 Average	26.72	26.27	27.53	29.11	27.70	28.26
01 Average	21.84	20.46	21.82	24.33	22.00	22.95
02 Average	22.51	22.63	23.91	24.65	23.71	24.10
003 Average	27.56	25.86	27.69	29.82	27.71	28.53
004 Average	36.77	33.75	36.07	38.97	35.90	36.98
005 Average	50.28	47.60	49.29	52.94	48.86	50.24
006 Average	59.69	57.03	59.11	62.62	59.02	60.24
007 Average	66.52	66.36	67.97	69.65	67.04	67.94
008 Average	94.04	90.32	93.33	98.47	92.77	94.74
009 Average	56.35	57.78	60.23	59.49	59.17	59.29
010 Average	74.71	74.19	76.50	78.01	75.86	76.69
11 Average	95.73	101.66	102.92	100.71	102.63	101.87
112 January	98.99	103.96	105.27	103.97	105.25	104.71
February	102.04	108.56	109.23	105.93	108.08	107.18
March	105.42	110.65	110.62	110.80	111.00	110.92
April	103.62	107.17	107.55	111.22	108.54	109.68
May	95.57	100.79	101.56	103.04	103.26	103.17
June	83.59	87.89	91.90	91.66	92.18	91.96
July	86.10	92.50	93.68	92.64	92.99	92.84
August	92.53	99.63	98.70	98.58	97.04	97.70
September	95.98	101.03	101.34	102.17	101.82	101.97
October	92.24	97.75	99.22	99.07	100.92	100.02
November	89.64	91.86	96.20	95.28	98.07	96.78
December	89.81	92.69	95.01	96.56	93.70	95.06
Average	94.52	99.78	101.00	100.72	101.09	100.93
13 January	94.89	95.23	95.19	103.78	97.91	100.78
February	95.04	100.94	99.09	103.75	99.23	101.45
March	95.85	100.21	98.51	103.45	99.11	101.23
April	94.72	95.56	95.72	102.53	96.45	99.50
May	95.00	96.20	97.41	101.98	98.50	100.17
June	94.05	96.22	96.90	100.26	97.17	98.67
July	101.61	101.37	101.19	106.19	101.56	103.85
August	103.14	101.89	103.11	108.30	104.16	106.20
September	102.45	100.85	101.60	107.96	103.49	105.70
October	96.18	92.81	94.87	103.00	97.84	100.41
November	88.70	88.30	89.45	96.09	90.36	93.32
December	91.85	R 89.90	R 90.04	97.87	90.57	94.32
Average	96.13	R 96.66	<sup>R</sup> <b>97.02</b>	102.91	98.11	100.49
14 January	89.59	R 91.00	R 90.25	R 97.17	R 89.63	R 93.52
February	R 96.77	R 93.36	R 94.58	R 102.35	R 96.04	R 99.33
March	NA	NA	NA	E 103.88	E 95.50	E 99.24

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

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

period of reporting; beginning in 1981, they reflect the period of loading. • Annual averages are the averages of the monthly prices, weighted by volume.

Geographic coverage is the 50 states, the District of Columbia, Puerto Rico, the

Virgin Islands, and all U.S. Territories and Possessions.

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

Sources: See end of section.

a Prices are not adjusted for inflation. See "Nominal Dollars" in Glossary.
 b See Note 1, "Crude Oil Refinery Acquisition Costs," at end of section.
 c See Note 2, "Crude Oil Domestic First Purchase Prices," at end of section.

d See Note 3, "Crude Oil F.O.B. Costs," at end of section.
See Note 4, "Crude Oil Landed Costs," at end of section.

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

(Dollarsa per Barrel)

			S	elected Count	ries					
	Angola	Colombia	Mexico	Nigeria	Saudi Arabia	United Kingdom	Venezuela	Persian Gulf Nations <sup>b</sup>	Total OPEC <sup>c</sup>	Total Non-OPEC <sup>c</sup>
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
2000 Average	27.90	29.04	25.39	28.70	24.62	27.21	24.45	24.72	25.56	26.77
2001 Average	23.25	24.25	18.89	24.85	18.98	23.30	18.01	18.89	19.73	21.04
2002 Average	24.09	24.64	21.60	25.38	23.92	24.50	20.13	23.38	22.18	22.93
2003 Average	28.22	28.89	24.83	29.40	25.03	28.76	23.81	25.17	25.36	26.21
2004 Average	37.26	37.73	31.55	38.71	34.08	37.30	31.78	33.08	33.95	33.58
2005 Average	52.48	51.89	43.00	55.95	47.96	54.48	46.39	47.21	49.60	45.79
2006 Average	62.23	59.77	52.91	65.69	56.09	66.03	55.80	56.02	59.18	55.35
2007 Average	67.80	67.93	61.35	76.64	W	69.96	64.10	69.93	69.58	62.69
2008 Average	95.66	91.17	84.61	102.06	93.03	96.33	88.06	91.44	93.15	87.15
2009 Average	57.07	57.90	56.47	64.61	57.87	65.63	55.58	59.53	58.53	57.16
2010 Average	78.18	72.56	72.46	80.83	76.44	W	70.30	75.65	75.23	73.24
2011 Average	111.82	100.21	100.90	115.35	107.08	_	97.23	106.47	105.34	98.49
2012 January	111.10	106.69	107.79	114.12	W	_	105.08	107.51	107.51	101.40
February	121.45	114.47	110.14	124.31	W	-	110.37	111.12	113.85	103.42
March	W	118.46	114.81	128.10	W	-	112.76	118.06	117.06	104.65
April	118.84	114.06	110.54	W	W	-	109.33	115.02	113.85	101.42
May	110.79	101.27	103.12	110.79	W	-	101.45	105.16	105.28	96.74
June	95.65	91.81	90.60	98.96	91.90	_	87.64	90.55	90.63	85.28
July	W	96.83	95.03	103.86	W	_	93.81	95.47	96.30	88.46
August	W	106.16	101.12	114.62	W	_	99.94	104.87	104.18	95.13
September	112.75	108.59	102.49	111.74	107.14	_	101.00	105.58	105.05	97.52
October	W	105.77	98.98	W	W	_	98.10	102.70	101.29	95.05
November	W	103.75	93.45		W	_	93.15	101.91	95.94	89.37
December	–	101.24	94.19	W	W	_	92.99	102.93	98.04	87.64
Average	111.23	106.43	101.84	114.51	106.65	-	100.15	105.45	104.39	95.71
2013 January	W	106.99	100.16	W	W	_	97.15	105.30	102.42	91.51
February	W	106.45	108.25	W	W	_	104.06	105.22	106.93	97.34
March	W	101.31	105.16	111.03	W	_	101.60	108.10	105.77	94.86
April	W	99.58	99.95	W	W	-	95.01	100.50	98.68	93.04
May	103.46	98.97	99.21	106.45	W	_	95.48	98.46	98.72	94.06
June	103.67	98.56	97.16	W	W	-	95.71	97.42	98.45	94.58
July	W	102.20	101.27	W	W	W	100.32	101.21	102.36	100.56
August	W	105.59	100.97	111.28	W	-	101.12	104.10	103.69	100.42
September	113.86	103.16	100.14	W	103.53	W	100.37	103.22	104.44	98.47
October	-	W	93.76		98.96	_	95.72	98.48	97.38	89.45
November	W	W	88.56	W	91.38	_	91.79	92.02	93.23	84.76
December Average	W 1 <b>07.71</b>	95.50 <b>101.24</b>	90.25 <b>98.40</b>	110.06	<sup>R</sup> 95.97 <b>101.16</b>	w	92.46 <b>97.52</b>	94.88 <b>100.62</b>	<sup>R</sup> 94.41 <b>100.57</b>	<sup>R</sup> 87.24 <sup>R</sup> <b>93.81</b>
2014 January	W	95.84	R 89.30	_	99.21	_	R 89.69	98.44	R 94.86	R 87.66
	W	96.04	91.81	_	102.29	_	93.08	100.76	97.79	89.89
February	vv	90.04	91.01	_	102.23	_	93.00	100.76	91.19	09.09

Notes: • The Free on Board (F.O.B.) cost at the country of origin excludes all costs related to insurance and transportation. See "F.O.B. (Free on Board)" in Glossary, and Note 3, "Crude Oil F.O.B. Costs," at end of section. • Values for the current two months are preliminary. • Through 1980, prices reflect the period of reporting; beginning in 1981, prices reflect the period of loading. • Annual averages are averages of the monthly prices, including prices not published, weighted by volume. • Cargoes that are purchased on a "netback" basis, or under similar contractual arrangements whereby the actual purchase price is not established at the time the crude oil is acquired for importation into the United is not established at the time the crude oil is acquired for importation into the United States, are not included in the published data until the actual prices have been determined and reported.

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

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

 <sup>&</sup>lt;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 Anoola. Data for all countries not included in

<sup>&</sup>quot;Total OPEC" are included in "Total Non-OPEC."

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

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

Table 9.3 Landed Costs of Crude Oil Imports From Selected Countries

(Dollarsa per Barrel)

				Selected 0	Countries						
	Angola	Canada	Colombia	Mexico	Nigeria	Saudi Arabia	United Kingdom	Venezuela	Persian Gulf Nations <sup>b</sup>	Total OPEC <sup>c</sup>	Total Non-OPEC <sup>c</sup>
1973 Averaged	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
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
2010 Average	80.61	72.80	74.25	72.86	83.14	79.29	80.29	72.43	78.60	78.28	74.68
2011 Average	114.05	89.92	102.57	101.21	116.43	108.83	118.45	100.14	108.01	107.84	98.64
2010	445.40	00.40	440.54	100.00	445.44	440.40	147	400.00	440.04	440.00	101.01
2012 January	115.13	93.43	110.54	108.38	115.41	110.49	W	106.23	110.61	110.32	101.31
February	121.30	92.09	115.19	111.24	126.42	114.75	W	111.72	114.24	115.76	102.99
March	128.35	88.71	119.93	115.20	130.46	117.55	_	114.29	116.71	117.99	103.94
April	120.60	85.55	113.78	111.55	124.06	115.33	W	110.58	115.77	116.10	99.94
May	114.94	82.78	105.04	103.79	113.89	108.39	W	103.02	108.52	108.26	95.21
June	103.10	78.11	93.85	90.89	103.24	99.38	W	89.41	99.24	97.29	87.15
July	106.95	75.65	97.70	95.24	106.95	99.00		94.91	99.05	99.49	88.11
August	113.27	80.68	105.94	101.98	114.51	104.66	-	101.38	104.35	105.27	92.29
September	116.51	85.42	109.19	103.16	114.95	107.06	_	102.97	106.29	107.02	95.79
October	114.90	86.35	106.48	99.09	117.03	106.12	W	99.31	105.76	105.81	93.77
November	111.01	82.89	104.74	94.32	112.41	106.05	-	94.67	104.94	102.26	91.17
December	116.37 <b>114.95</b>	76.68 <b>84.24</b>	102.86 <b>107.07</b>	94.98 <b>102.45</b>	114.52 <b>116.88</b>	106.87 <b>108.15</b>	W W	94.30 <b>101.58</b>	105.78 <b>107.74</b>	103.38 <b>107.56</b>	86.76 <b>95.05</b>
Average	114.95	04.24	107.07	102.45	110.00	106.15	VV	101.56	107.74	107.50	93.03
2013 January	115.79	75.45	106.36	101.04	120.99	108.57	_	99.04	107.02	106.85	86.43
February	115.77	76.67	109.28	108.95	117.89	108.75	W	105.54	107.96	108.83	90.85
March	110.56	79.59	105.37	106.36	114.08	107.71	W	103.35	108.02	107.57	90.36
April	105.56	83.02	101.42	100.63	106.03	102.30	W	96.19	102.31	101.76	90.79
May	106.32	86.83	100.70	100.07	108.12	101.54	W	97.44	101.35	101.62	93.50
June	106.73	88.26	99.47	97.56	108.38	101.41	W	97.44	101.26	101.21	93.49
July	110.43	94.16	102.47	101.87	W	104.13	W	101.65	103.15	103.96	98.66
August	111.88	98.63	106.04	101.52	114.47	104.62	W	102.95	104.15	104.91	101.55
September	113.92	95.05	105.76	100.70	115.21	101.16	W	102.09	101.94	104.10	99.38
October	W	85.36	102.29	94.35	_	98.71	_	97.60	99.35	99.55	91.23
November	110.50	77.34	97.30	89.19	W	96.12	_	94.42	96.57	96.32	83.89
December	113.16	R 75.23	97.41	R 91.11	W	R 99.25	W	R 94.83	R 98.27	R 98.00	84.14
Average	110.75	84.46	103.00	99.07	112.99	R 102.62	111.23	99.34	R 102.54	102.98	92.04
2014 January	W	<sup>R</sup> 78.16	R 97.87	R 90.85	_	R 101.21		R 92.51	R 99.85	R 97.77	R 84.92
2014 January	110.85	88.06	98.59	92.87	_	103.45	_	95.57	101.57	100.24	90.69
February	110.00	00.00	90.59	92.01	_	103.43	_	90.01	101.57	100.24	90.09

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

coverage is the 50 states and the District of Columbia.

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

Sources: • 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." • 1978–2007: EIA, Petroleum Marketing Annual 2008, Table 22. • 2008 forward: EIA, Petroleum Marketing Monthly, May 2014, Table 22.

<sup>&</sup>lt;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 and beginning in 2007, also includes Angola. Data for all countries not included in "Total OPEC" are included in "Total Non-OPEC."

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

R=Revised. — =No data reported. W=Value withheld to avoid disclosure of

individual company data.

Notes: • See "Landed Costs" in Glossary, and Note 4, "Crude Oil Landed Costs," at end of section. • Values for the current two months are preliminary.

Through 1980, prices reflect the period of reporting; beginning in 1981, prices reflect the period of loading.
 Annual averages are averages of the monthly prices, including prices not published, weighted by volume.
 Cargoes that are purchased on a "netback" basis, or under similar contractual arrangements whereby the actual purchase price is not established at the time the crude oil is acquired for importation into the United States, are not included in the published data until the actual prices have been determined and reported. • U.S. geographic coverage is the 50 states and the District of Columbia.

## Table 9.4 Retail Motor Gasoline and On-Highway Diesel Fuel Prices

(Dollarsa per Gallon, Including Taxes)

	Pla	att's / Bureau of L	abor Statistics I	Data	U.S. Energy Information Administration Data					
		Motor Gasol	ine by Grade		Regular M	otor Gasoline by Are	а Туре			
	Leaded Regular	Unleaded Regular	Unleaded Premium <sup>b</sup>	All Grades <sup>c</sup>	Conventional Gasoline Areas <sup>d</sup>	Reformulated Gasoline Areas <sup>e</sup>	All Areas	On-Highway Diesel Fuel		
1950 Average	0.268	NA	NA	NA						
1955 Average	.291	NA	NA	NA						
1960 Average	.311	NA	NA	NA						
1965 Average	.312	NA	NA	NA						
1970 Average	.357	NA	NA	NA						
1975 Average	.567	NA 1 245	NA NA	NA 4 224						
1980 Average	1.191	1.245	NA 1 240	1.221 1.196			==			
1985 Average	1.115 1.149	1.202 1.164	1.340 1.349	1.196	NA	NA	NA	NA		
1990 Average	1.149	1.164	1.336	1.205	1.103	1.163	1.111	1.109		
1995 Average		1.510	1.693	1.563	1.462	1.543	1.484	1.491		
2000 Average 2001 Average		1.461	1.657	1.531	1.384	1.498	1.420	1.401		
2001 Average		1.358	1.556	1.441	1.313	1.408	1.345	1.319		
2002 Average		1.591	1.777	1.638	1.516	1.655	1.561	1.509		
2004 Average		1.880	2.068	1.923	1.812	1.937	1.852	1.810		
2005 Average		2.295	2.491	2.338	2.240	2.335	2.270	2.402		
2006 Average		2.589	2.805	2.635	2.533	2.654	2.572	2.705		
2007 Average		2.801	3.033	2.849	2.767	2.857	2.796	2.885		
2008 Average		3.266	3.519	3.317	3.213	3.314	3.246	3.803		
2009 Average		2.350	2.607	2.401	2.315	2.433	2.353	2.467		
2010 Average		2.788	3.047	2.836	2.742	2.864	2.782	2.992		
2011 Average		3.527	3.792	3.577	3.476	3.616	3.521	3.840		
<b>2012</b> January		3.399	3.663	3.447	3.330	3.486	3.380	3.833		
February		3.572	3.840	3.622	3.517	3.711	3.579	3.953		
March		3.868	4.138	3.918	3.774	4.017	3.852	4.127		
April		3.927	4.194	3.976	3.837	4.032	3.900	4.115		
May		3.792	4.062	3.839	3.643	3.919	3.732	3.979		
June		3.552	3.825	3.602	3.465	3.695	3.539	3.759		
July		3.451 3.707	3.726 3.991	3.502 3.759	3.379 3.668	3.565 3.834	3.439 3.722	3.721 3.983		
August September		3.856	4.140	3.759	3.801	3.949	3.849	4.120		
October		3.786	4.079	3.839	3.653	3.939	3.746	4.094		
November		3.488	3.782	3.542	3.380	3.603	3.452	4.000		
December		3.331	3.626	3.386	3.256	3.424	3.310	3.961		
Average		3.644	3.922	3.695	3.552	3.757	3.618	3.968		
2013 January		3.351	3.646	3.407	3.255	3.452	3.319	3.909		
February		3.693	3.990	3.748	3.605	3.807	3.670	4.111		
March		3.735	4.038	3.792	3.648	3.845	3.711	4.068		
April		3.590	3.901	3.647	3.501	3.714	3.570	3.930		
May		3.623	3.936	3.682	3.565	3.720	3.615	3.870		
June		3.633	3.957	3.693	3.576	3.731	3.626	3.849		
July		3.628	3.951	3.687	3.515	3.751	3.591	3.866		
August		3.600	3.919	3.658	3.515	3.697	3.574	3.905		
September		3.556	3.881	3.616	3.474	3.656	3.532	3.961		
October		3.375 3.251	3.702 3.585	3.434 3.310	3.285 3.186	3.468 3.362	3.344 3.243	3.885		
November December		3.251 3.277	3.585 3.604	3.310	3.186	3.362 3.418	3.243 3.276	3.839 3.882		
Average		3.526	3.843	3.584	3.443	3.635	3.505	3.922		
2014 January		3.320	3.651	3.378	3.252	3.438	3.313	3.893		
February		3.364	3.694	3.422	3.305	3.464	3.356	3.984		
March		3.532	3.858	3.590	3.474	3.658	3.533	4.001		
April		3.659	3.986	3.717	3.590	3.809	3.661	3.964		

gasoline (RFG). Areas are reclassified each time a shift in or out of an RFG program occurs due to federal or state regulations.

NA=Not available. — — =Not applicable.

Notes: • See Note 5, "Motor Gasoline Prices," at end of section. • See "Motor Gasoline Grades," "Motor Gasoline, Conventional," "Motor Gasoline, Oxygenated," and "Motor Gasoline, Reformulated" in Glossary. • Geographic coverage: for columns 1–4, current coverage is 85 urban areas; for columns 5–7, coverage is the 50 states and the District of Columbia; for column 8, coverage is the 48 contiguous

states and the District of Columbia.

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

CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.

Sources: • Motor Gasoline by Grade, Monthly Data: October 1973 forward—U.S. Department of Labor, Bureau of Labor Statistics (BLS), U.S. City Average Gasoline Prices. • Motor Gasoline by Grade, Annual Data: 1949–1973—Platt's Oil Price Handbook and Oilmanac, 1974, 51st Edition. 1974 forward—calculated by the U.S. Energy Information Administration (EIA) as simple averages of the BLS monthly data. • Regular Motor Gasoline by Area Type: EIA, calculated as simple averages of weighted weekly estimates from "Weekly U.S. Retail Gasoline Prices, Regular Grade." • On-Highway Diesel Fuel: EIA, calculated as simple averages of weighted weekly estimates from "Weekly Retail Calculated as simple averages of weighted weekly estimates from "Weekly Retail On-Highway Diesel Prices."

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

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

C Also includes grades of the control of the

December data only.

C Also includes grades of motor gasoline not shown separately.

d Any area that does not require the sale of reformulated gasoline.

"Reformulated Gasoline Areas" are ozone nonattainment areas designated by the U.S. Environmental Protection Agency that require the use of reformulated gasoline (RFG). Areas are reclassified each time a shift in or out of an RFG

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		Sulfur	al Fuel Oil Content an 1 Percent	Average		
	Sales for Resale	Sales to End Users	Sales for Resale	Sales to End Users	Sales for Resale	Sales to End Users	
978 Average	0.293	0.314	0.245	0.275	0.263	0.298	
980 Average	.608	.675	.479	.523	.528	.607	
985 Average	.610	.644	.560	.582	.577	.610	
990 Average	.472	.505	.372	.400	.413	.444	
995 Average	.383	.436	.338	.377	.363	.392	
000 Average	.627	.708	.512	.566	.566	.602	
001 Average	.523	.642	.428	.492	.476	.531	
002 Average	.546	.640	.508	.544	.530	.569	
003 Average	.728	.804	.588	.651	.661	.698	
004 Average	.764	.835	.601	.692	.681	.739	
005 Average	1.115	1.168	.842	.974	.971	1.048	
006 Average	1.202	1.342	1.085	1.173	1.136	1,218	
007 Average	1.406	1.436	1.314	1.350	1.350	1.374	
008 Average	1.918	2.144	1.843	1.889	1.866	1.964	
009 Average	1.337	1.413	1.344	1.306	1.342	1.341	
010 Average	1.756	1.920	1.679	1.619	1.697	1.713	
011 Average	2.389	2.736	2.316	2.257	2.336	2.401	
012 January	2.591	2.965	2.480	2.452	2.512	2.620	
February	2.739	3.070	2.632	2.556	2.654	2.705	
March	2.921	3.159	2.717	2.601	2.772	2.784	
April	2.805	3.201	2.624	2.596	2.670	2.731	
May	2.589	3.170	2.501	2.652	2.527	2.784	
June	2.275	3.083	2.186	2.179	2.211	2.476	
July	2.271	2.926	2.224	2.221	2.234	2.406	
August	2.586	3.041	2.457	2.442	2.483	2.579	
September	2.558	2.970	2.491	2.473	2.501	2.582	
October	2.464	2.969	2.393	2.382	2.409	2.496	
November	2.385	2.895	2.283	2.346	2.300	2.492	
December	2.341	2.814	2.248	2.275	2.268	2.431	
Average	2.548	3.025	2.429	2.433	2.457	2.592	
013 January	2.530	2.874	2.328	2.333	2.388	2.475	
February	2.571	3.017	2.388	2.402	2.415	2.578	
March	2.479	2.949	2.294	2.320	2.346	2.517	
April	2.354	2.875	2.214	2.238	2.246	2.354	
May	2.316	2.839	2.213	2.421	2.240	2.507	
June	2.285	2.785	2.214	2.385	2.234	2.454	
July	2.282	2.768	2.225	2.280	2.242	2.384	
August	2.331	2.759	2.258	2.411	2.277	2.500	
September	2.359	2.839	2.265	2.412	2.286	2.513	
October	2.338	NA	2.232	2.364	2.255	2.532	
November	2.296	NA	2.190	2.328	2.224	2.492	
December	2.315	NA	2.177	2.353	2.209	2.458	
Average	2.363	2.883	2.249	2.353	2.278	2.482	
<b>)14</b> January	2.337	NA	2.117	R 2.400	2.173	<sup>R</sup> 2.481	
February	2.459	NA	2.139	2.416	2.207	2.505	

<sup>&</sup>lt;sup>a</sup> Prices are not adjusted for inflation. See "Nominal Dollars" in Glossary. R=Revised. 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.

• Through 1982, prices are U.S. Energy Information Administration (EIA)

See Note 6, "Historical Petroleum Prices," at end of section. estimates.

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

Web Page: See http://www.eia.gov/totalenergy/data/monthly/#prices (Excel and CSV files) for all available annual data beginning in 1978 and monthly data beginning in 1982. Sources: • 1978–2007: EIA, Petroleum Marketing Annual 2007, Table 17.

<sup>• 2008</sup> forward: EIA, Petroleum Marketing Monthly, May 2014, 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		1.128	.868	.864	.803	.801	.415
1985 Average		1.130	.794	.874	.776	.772	.398
990 Average		1.063	.773	.839	.697	.694	.386
995 Average		.975	.539	.580	.511	.538	.344
000 Average		1.330	.880	.969	.886	.898	.595
001 Average		1.256	.763	.821	.756	.784	.540
002 Average		1.146	.716	.752	.694	.724	.431
003 Average		1.288	.871	.955	.881	.883	.607
004 Average		1.627	1.208	1,271	1.125	1.187	.751
•		2.076	1.723	1.757	1.623	1.737	.933
005 Average		2.490	1.961	2.007	1.834	2.012	1.031
006 Average		2.490	2.171	2.007	2.072	2.012	1.031
007 Average		3.342	3.020	2.249	2.072 2.745	2.203	1.194
008 Average			3.020 1.719			1.713	.921
009 Average		2.480		1.844	1.657		
010 Average		2.874	2.185	2.299	2.147	2.214	1.212
011 Average	2.867	3.739	3.014	3.065	2.907	3.034	1.467
012 January	2.747	3.576	3.059	3.197	3.027	3.018	1.341
February		3.788	3.186	3.293	3.166	3.163	1.282
March	3.203	4.052	3.296	3.306	3.211	3.308	1.293
April	3.189	4.157	3.255	3.243	3.153	3.252	1.163
May	3.016	4.004	3.076	3.008	2.976	3.039	.950
June	2.757	3.883	2.747	2.697	2.635	2.741	.762
July	2.806	3.877	2.850	2.936	2.774	2.907	.809
August	3.087	4.124	3.129	3.195	2.988	3.206	.875
September	3.163	4.269	3.245	3.236	3.128	3.278	.910
October		4.002	3.182	3.250	3.155	3.265	.979
November		3.508	3.015	3.221	3.049	3.117	.955
December	2.590	3.518	2.982	3.145	3.003	3.022	.894
Average		3.919	3.080	3.163	3.031	3.109	1.033
013 January	2.676	3.685	3.093	3.334	3.069	3.046	.928
February		4.058	3.250	3.474	3.168	3.259	.953
March		4.085	3.036	3.137	2.977	3.082	.952
April		3.962	2.884	2.889	2.793	2.969	.949
May		4.068	2.763	2.793	2.793	2.958	.932
June		3.950	2.784	2.806	2.741	2.923	.861
		3.950 4.017	2.764	2.996	2.741	3.015	.903
July		4.017	2.995	3.055	2.094	3.084	1.059
August						3.084	
September		3.854	3.017	3.057	2.973		1.114
October		3.656	2.928	3.029	2.955	3.006	1.154
November		3.467	2.868	2.995	2.910	2.949	1.219
December		3.508	2.978	3.164	3.011	2.998	1.342
Average	2.812	3.869	2.953	3.084	2.966	3.028	1.048
014 January	2.604	R 3.538	R 2.964	3.237	3.059	R 2.981	<sup>R</sup> 1.641
February		3.712	2.981	3.353	3.051	3.092	1.654

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

Notes: • Sales for resale are those made to purchasers other than ultimate consumers. Sales to end users are shown in Table 9.7; they are sales made directly to ultimate consumers, including bulk consumers (such as agriculture, industry, and electric utilities) and residential and commercial consumers. • Values for the current month are preliminary. • Through 1982, prices are U.S. Energy

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

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

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

b See Note 5, "Motor Gasoline Prices," at end of section. R=Revised.

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	.868	.902	.788	.818	.482
985 Average	.912	1.201	.796	1.030	.849	.789	.717
990 Average	.883	1.120	.766	.923	.734	.725	.745
	.765	1.005	.540	.589	.562	.560	.492
995 Average	1.106	1.306	.899	1.123	.927	.935	.603
000 Average	1.032	1.323	.775	1.045	.829	.842	.506
001 Average						.642 .762	
002 Average	.947	1.288	.721	.990	.737		.419
003 Average	1.156	1.493	.872	1.224	.933	.944	.577
004 Average	1.435	1.819	1.207	1.160	1.173	1.243	.839
005 Average	1.829	2.231	1.735	1.957	1.705	1.786	1.089
006 Average	2.128	2.682	1.998	2.244	1.982	2.096	1.358
007 Average	2.345	2.849	2.165	2.263	2.241	2.267	1.489
008 Average	2.775	3.273	3.052	3.283	2.986	3.150	1.892
009 Average	1.888	2.442	1.704	2.675	1.962	1.834	1.220
010 Average	2.301	3.028	2.201	3.063	2.462	2.314	1.481
011 Average	3.050	3.803	3.054	3.616	3.193	3.117	1.709
012 January	2.914	3.732	3.087	3.848	3.345	3.093	1.655
February	3.087	W	3.206	3.874	3.495	3.224	1.518
March	3.389	4.133	3.337	3.919	3.522	3.378	1.470
April	3.405	4.313	3.283	3.916	3.509	3.342	1.352
May	3.289	W	3.100	3.741	3.258	3.163	1.080
June	3.061	W	2.768	3.753	2.982	2.912	.902
July	2.981	W	2.856	3.612	3.041	2.989	.972
August	3.248	4.091	3.123	3.575	3.256	3.265	.916
September	3.357	4.262	3.283	3.771	3.361	3.367	.932
October	3.261	4.064	3.211	3.864	3.486	3.364	.980
November	2.994	3.561	3.045	3.854	3.403	3.206	.926
December	2.828	3.599	3.008	3.789	3.321	3.115	.840
Average	3.154	3.971	3.104	3.843	3.358	3.202	1.139
013 January	2.850	W	3.117	3.790	3.341	3.129	.891
February	3.221	4.060	3.294	3.887	3.498	3.339	.925
March	3.233	4.022	3.070	3.869	3.314	3.204	.943
April	3.102	3.860	2.922	3.836	3.217	3.090	.971
May	3.188	3.900	2.787	3.786	3.222	3.058	.953
June	3.184	4.191	2.813	3.634	3.172	3.028	.876
July	3.146	4.224	2.908	3.840	3.244	3.099	.935
August	3.097	4.298	3.002	3.707	3.314	3.169	1.074
September	3.059	3.982	3.040	3.849	3.327	3.184	1.115
	2.893	3.653	2.931	3.852	3.327 NA	3.085	1.115
October			2.931	3.852 3.847	NA NA		1.169
November	2.759	3.674				3.030	
December	2.759	3.678	3.008	W	3.578	3.055	1.322
Average	3.049	3.932	2.979	3.842	3.335	3.122	1.028
014 January	2.816	W	2.987	W	3.591	R 3.024	R 1.457
February	2.913	3.931	2.994	W	3.687	3.142	1.513

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

including bulk consumers (such as agriculture, industry, and electric utilities) and residential and commercial consumers. Sales for resale are shown in Table 9.6; they are sales made to purchasers other than ultimate consumers. • Values for the current month are preliminary. • Through 1982, prices are U.S. Energy

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

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

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

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

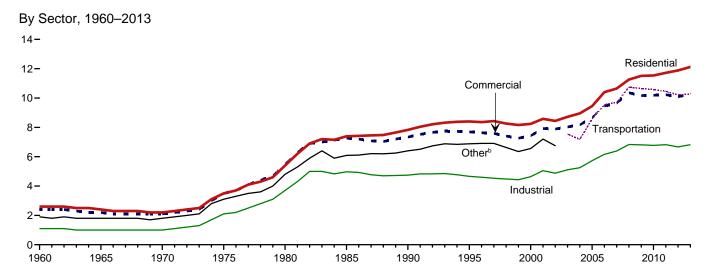
R=Revised. NA=Not available. W=Value withheld to avoid disclosure of individual company data.

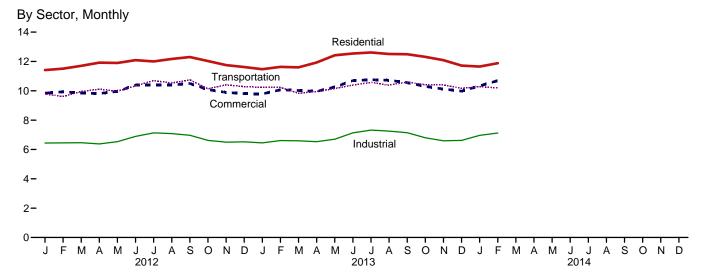
Notes: 

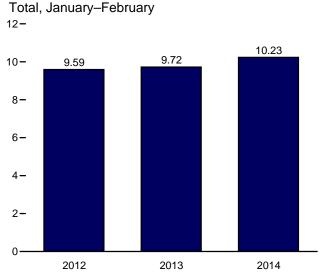
Sales to end users are those made directly to ultimate consumers,

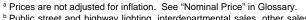
Figure 9.2 Average Retail Prices of Electricity

(Centsa per Kilowatthour)

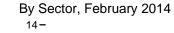


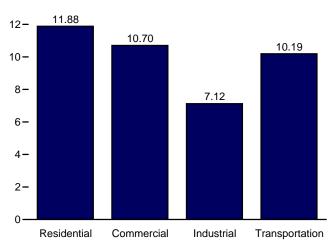






<sup>&</sup>lt;sup>b</sup> Public street and highway lighting, interdepartmental sales, other sales to public authorities, agricultural and irrigation, and transportation including rail-roads and railways.





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

(Centsa per Kilowatthour, Including Taxes)

	Residential	Commercial <sup>b</sup>	Industrial <sup>c</sup>	Transportationd	Othere	Total	
1960 Average	2.60	2.40	1.10	NA	1.90	1.80	
965 Average	2.40	2.20	1.00	NA NA	1.80	1.70	
970 Average	2.20	2.10	1.00	NA NA	1.80	1.70	
	3.50	3.50	2.10	NA NA	3.10	2.90	
975 Average							
980 Average			NA NA	4.80	4.70		
985 Average	7.39	7.27	4.97	NA	6.09	6.44	
990 Average	7.83	7.34	4.74	NA	6.40	6.57	
995 Average	8.40	7.69	4.66	NA	6.88	6.89	
000 Average	8.24	7.43	4.64	NA	6.56	6.81	
001 Average	8.58	7.92	5.05	NA	7.20	7.29	
002 Average	8.44	7.89	4.88	NA	6.75	7.20	
003 Average	8.72	8.03	5.11	7.54		7.44	
004 Average	8.95	8.17	5.25	7.18		7.61	
005 Average	9.45	8.67	5.73	8.57		8.14	
006 Average	10.40	9.46	6.16	9.54		8.90	
007 Average	10.65	9.65	6.39	9.70		9.13	
008 Average	11.26	10.36	6.83	10.74		9.74	
				10.74		9.82	
009 Average	11.51	10.17	6.81				
010 Average	11.54	10.19	6.77	10.57		9.83	
011 Average	11.72	10.23	6.82	10.46		9.90	
012 January	11.41	9.84	6.44	9.78		9.61	
February	11.51	9.94	6.45	9.61		9.58	
March	11.70	9.84	6.46	9.95		9.52	
April	11.92	9.82	6.38	10.11		9.47	
May	11.90	9.96	6.53	9.97		9.64	
June	12.09	10.39	6.89	10.33		10.13	
July	12.00	10.39	7.13	10.70		10.30	
August	12.17	10.39	7.08	10.53		10.32	
September	12.30	10.50	6.97	10.74		10.26	
October	12.03	10.08	6.62	10.13		9.74	
November	11.75	9.89	6.50	10.13		9.58	
	11.62	9.81	6.52	10.28		9.64	
December							
Average	11.88	10.09	6.67	10.21		9.84	
013 January	11.47	9.79	6.45	10.24		9.66	
February	11.63	10.07	6.61	10.23		9.79	
March	11.60	10.02	6.59	9.83		9.71	
April	11.93	9.96	6.53	9.95		9.67	
May	12.42	10.26	6.70	10.16		9.95	
June	12.54	10.70	7.13	10.39		10.47	
July	12.61	10.76	7.32	10.57		10.70	
August	12.51	10.72	7.25	10.38		10.59	
September	12.49	10.56	7.14	10.60		10.43	
October	12.31	10.30	6.80	10.41		10.01	
November	12.09	10.12	6.59	10.40		9.83	
	11.72	9.98	6.62	10.40		9.88	
December					==		
Average	12.12	10.29	6.82	10.28		10.08	
<b>014</b> January	11.65	10.34	6.96	10.29		10.13	
February	11.88	10.70	7.12	10.19		10.35	
2-Month Average	11.76	10.51	7.04	10.24		10.23	
013 2-Month Average	11.54	9.93	6.53	10.23		9.72	
012 2-Month Average	11.45	9.89	6.45	9.70		9.59	

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

and railways.

NA=Not available. ——=Not applicable.

Notes: • Beginning in 2003, the category "Other" has been replaced by "Transportation," and the categories "Commercial" and "Industrial" have been redefined. • Prices are calculated by dividing revenue by sales. Revenue may not correspond to sales for a particular month because of energy service provider billing and accounting procedures. That lack of correspondence could result in uncharacteristic increases or decreases in the monthly prices. • Prices include state and local taxes, energy or demand charges, customer service charges, environmental surcharges, franchise fees, fuel adjustments, and other miscellaneous charges applied to end-use customers during normal billing operations. Prices do not include deferred charges, credits, or other adjustments, such as fuel or revenue from purchased power, from previous reporting periods.

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

(Class A utilities are those with operating revenues of \$2.5 million or more; Class B utilities are those with operating revenues between \$1 million and \$2.5 million.) For 1980–1982, data are for selected Class A utilities whose electric operating revenues were \$100 million or more during the previous year. For 1983, data are for a selected sample of electric utilities. Beginning in 1984, data are for a census of electric utilities. Beginning in 1996, data also include energy service providers selling to retail customers. • See Note 7, "Electricity Retail Prices," at end of section for plant coverage, and for information on preliminary and final values.

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

Web Page: See http://www.eia.gov/totalenergy/data/monthly/#prices (Excel and

Web Page: See http://www.eia.gov/totalenergy/data/monthly/#prices (Excel and CSV files) for all available annual data beginning in 1960 and monthly data beginning in 1976.

Sources: • 1960–September 1977: Federal Power Commission, Form FPC-5, "Monthly Statement of Electric Operating Revenues and Income." • October 1977–February 1980: Federal Energy Regulatory Commission (FERC), Form FPC-5, "Monthly Statement of Electric Operating Revenues and Income." • March 1980–1982: FERC, Form FERC-5, "Electric Utility Company Monthly Statement." • 1983: U.S. Energy Information Administration (EIA), Form EIA-826, "Electric Utility Company Monthly Statement." • 1984–2010: EIA, Form EIA-861, "Annual Electric Power Industry Report." • 2011 forward: EIA, Electric Power Monthly, April 2014, Table 5.3.

b Commercial sector. For 1960–2002, prices exclude public street and highway lighting, interdepartmental sales, and other sales to public authorities.

c Industrial sector. For 1960–2002, prices exclude agriculture and irrigation.

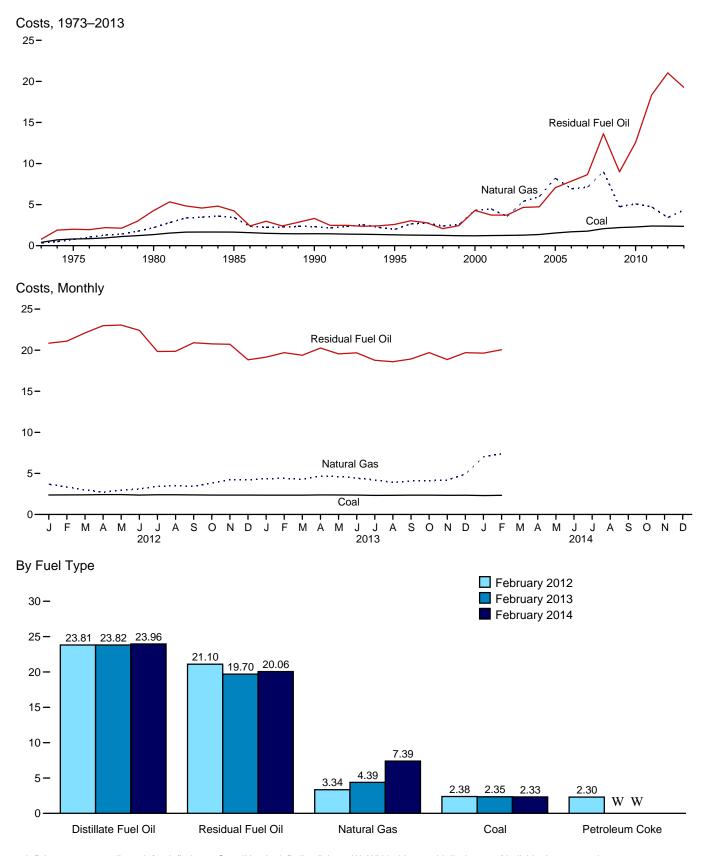
minusarian securi. For Isou-zuuz, prices exclude agriculture and irrigation.

d Transportation sector, including railroads and railways.

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

Figure 9.3 Cost of Fossil-Fuel Receipts at Electric Generating Plants

(Dollars<sup>a</sup> per Million Btu, Including Taxes)



 $<sup>\</sup>ensuremath{^{\mathrm{a}}}$  Prices are not adjusted for inflation. See "Nominal Dollars" in Glossary.

W=Withheld to avoid disclosure of individual company data. 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)

			Petrole	um				
	Coal	Residual Fuel Oil <sup>b</sup>	Distillate Fuel Oil <sup>c</sup>	Petroleum Coke	Total <sup>d</sup>	Natural Gas <sup>e</sup>	All Fossil Fuels	
1973 Average	0.41	0.79	NA	NA	0.80	0.34	0.48	
1975 Average	.81	2.01	NA NA	NA	2.02	.75	1.04	
1980 Average	1.35	4.27	NA NA	NA NA	4.35	2.20	1.93	
1985 Average	1.65	4.24	NA NA	NA NA	4.32	3.44	2.09	
1990 Average	1.45	3.32	5.38	.80	3.35	2.32	1.69	
1995 Average	1.32	2.59	3.99	.65	2.57	1.98	1.45	
	1.32	4.29	6.65	.58	4.18	4.30	1.74	
2000 Average								
2001 Average	1.23	3.73	6.30	.78	3.69	4.49	1.73	
2002 Average <sup>9</sup>	1.25	3.73	5.34	.78	3.34	3.56	1.86	
2003 Average	1.28	4.66	6.82	.72	4.33	5.39	2.28	
2004 Average	1.36	4.73	8.02	.83	4.29	5.96	2.48	
2005 Average	1.54	7.06	11.72	1.11	6.44	8.21	3.25	
2006 Average	1.69	7.85	13.28	1.33	6.23	6.94	3.02	
2007 Average	1.77	8.64	14.85	1.51	7.17	7.11	3.23	
2008 Average	2.07	13.62	21.46	2.11	10.87	9.01	4.12	
2009 Average	2.21	8.98	13.22	1.61	7.02	4.74	3.04	
2010 Average	2.27	12.57	16.61	2.28	9.54	5.09	3.26	
2011 Average	2.39	18.35	22.46	3.03	12.48	4.72	3.29	
2012 January	2.37	20.86	22.94	2.43	12.79	3.69	2.86	
February	2.38	21.10	23.81	2.30	12.66	3.34	2.77	
March	2.39	22.10	24.96	1.90	12.88	2.99	2.69	
April	2.42	22.99	24.61	2.11	12.92	2.71	2.61	
May	2.42	23.06	23.24	2.57	13.66	2.94	2.70	
June	2.36	22.41	21.63	2.32	13.73	3.11	2.76	
July	2.40	19.84	21.92	2.41	14.50	3.43	2.92	
August	2.40	19.86	23.38	2.45	12.61	3.50	2.89	
September	2.38	20.90	24.42	2.39	10.35	3.41	2.81	
October	2.36	20.77	24.93	2.00	11.50	3.84	2.91	
November	2.36	20.72	24.28	2.05	11.71	4.25	2.99	
	2.36	18.83	23.44	2.06	10.98	4.21	3.01	
December Average	2.38	21.03	23.44 23.49	2.24	12.48	3.42	2.83	
_	0.05	40.45	00.00	0.00	40.50	4.00	2.00	
2013 January	2.35 2.35	19.15	22.93	2.02 W	12.50 W	4.38 4.39	3.09 W	
February		19.70	23.82	• • •				
March	2.35	19.39	23.85	W	W	4.29	W	
April	2.38	20.26	22.92	2.26	9.73	4.67	3.16	
May	2.37	19.55	22.59	2.32	10.81	4.62	3.16	
June	2.36	19.68	22.37	2.39	10.11	4.42	3.15	
July	2.32	18.77	23.11	2.27	11.44	4.20	3.12	
August	2.33	18.60	23.16	2.23	11.81	3.91	3.00	
September	2.35	18.93	23.50	2.15	10.14	4.08	3.02	
October	2.35	19.71	22.84	2.11	11.28	4.11	3.00	
November	2.33	18.86	22.74	1.98	12.24	4.19	3.01	
December	2.34	19.70	23.21	1.99	10.96	4.91	3.28	
Average	2.35	19.27	23.05	2.16	11.56	4.33	3.10	
2014 January	2.30	19.64	23.12	1.73	16.65	7.03	4.09	
February	2.33	20.06	23.96	W	W	7.39	W	
2-Month Average	2.31	19.90	23.44	W	w	7.20	W	
2013 2-Month Average	2.35	19.47	23.28	w	w	4.39	w	
2012 2-Month Average	2.38	20.95	23.31	2.37	12.73	3.52	2.82	

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

commercial and industrial sectors.

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

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

Web Page: See http://www.eia.gov/totalenergy/data/monthly/#prices (Excel and

CSV files) for all available annual and monthly data beginning in 1973.

Sources: See end of section.

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

<sup>&</sup>lt;sup>d</sup> For 1973–2001, electric utility data are for light oil (tuel oil rios. I and 2).

<sup>d</sup> For all years, includes residual fuel oil and distillate fuel oil. For 1990 forward,

Est 1973–2012 also includes jet fuel, kerosene, and also includes petroleum coke. For 1973-2012, also includes jet fuel, kerosene, and waste oil. For 1983-2012, also includes other petroleum, such as propane and refined motor oil.

e Natural gas, plus a small amount of supplemental gaseous fuels. For 1973-2000, data also include a small amount of blast furnace gas and other gases derived from fossil fuels.

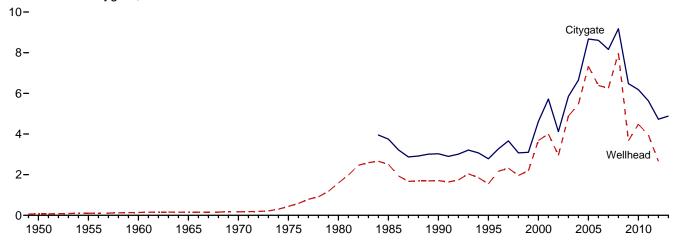
Weighted average of costs shown under "Coal," "Petroleum," and "Natural Gas.'

g Through 2001, data are for electric utilities only. Beginning in 2002, data also include independent power producers, and electric generating plants in the

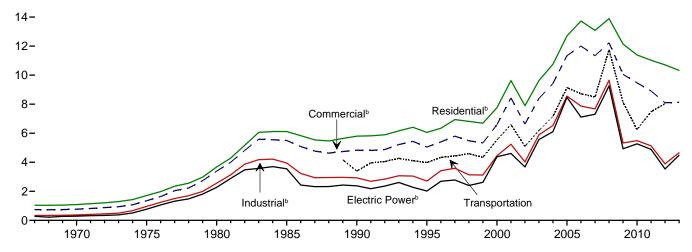
Figure 9.4 Natural Gas Prices

(Dollars<sup>a</sup> per Thousand Cubic Feet)

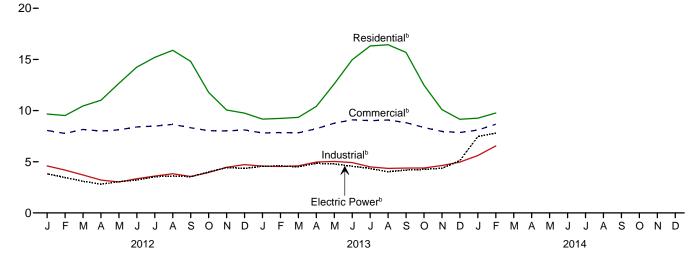
Wellhead and Citygate, 1949-2013



## Consuming Sectors, 1967-2013



## Consuming Sectors, Monthly



<sup>&</sup>lt;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** 

(Dollarsa per Thousand Cubic Feet)

						Co	onsuming	Sectorsb			
		<b>C</b> :	Res	idential	Com	mercial <sup>c</sup>	Ind	ustrial <sup>d</sup>	Transportation	Electi	ric Power <sup>e</sup>
	Wellhead Price <sup>f</sup>	City- ellhead gate rice <sup>f</sup> Price <sup>g</sup>	Priceh	Percentage of Sector <sup>i</sup>	<b>Price</b> <sup>h</sup>	Percentage of Sector <sup>i</sup>	Price <sup>h</sup>	Percentage of Sector <sup>i</sup>	Vehicle Fuel <sup>j</sup> Price <sup>h</sup>	<b>Price</b> <sup>h</sup>	Percentage of Sector <sup>i,k</sup>
1950 Average	0.07	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1955 Average		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1960 Average		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1965 Average		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1970 Average		NA	1.09	NA	.77	NA	.37	NA	NA	.29	NA
1975 Average		NA	1.71	NA	1.35	NA	.96	NA	NA	.77	96.1
1980 Average		NA_	3.68	NA	3.39	NA	2.56	NA	NA	2.27	96.9
1985 Average		3.75	6.12	NA	5.50	NA	3.95	68.8	NA	3.55	94.0
1990 Average		3.03	5.80	99.2	4.83	86.6	2.93	35.2	3.39	2.38	76.8
1995 Average		2.78 4.62	6.06 7.76	99.0 92.6	5.05 6.59	76.7 63.9	2.71 4.45	24.5 19.8	3.98 5.54	2.02 4.38	71.4 50.5
2000 Average		4.62 5.72		92.6 92.4	8.43	66.0	5.24	20.8		4.30 4.61	40.2
2001 Average 2002 Average	4.00 2.95	5.72 4.12	9.63 7.89	92.4 97.9	6.63	77.4	5.24 4.02	20.8 22.7	6.60 5.10	e 3.68	40.2 83.9
		5.85	9.63	97.5 97.5	8.40	77.4 78.2	5.89	22.7 22.1	6.19	5.57	91.2
2003 Average 2004 Average		6.65	10.75	97.5 97.7	9.43	78.2 78.0	6.53	23.6	7.16	6.11	89.8
2005 Average		8.67	12.70	98.1	11.34	82.1	8.56	24.0	9.14	8.47	91.3
2006 Average		8.61	13.73	98.1	12.00	80.8	7.87	23.4	8.72	7.11	93.4
2007 Average		8.16	13.08	98.0	11.34	80.4	7.68	22.2	8.50	7.31	92.2
2008 Average		9.18	13.89	97.5	12.23	79.7	9.65	20.4	11.75	9.26	101.1
2009 Average		6.48	12.14	97.4	10.06	77.8	5.33	18.8	8.13	4.93	101.1
2010 Average		6.18	11.39	97.4	9.47	77.5	5.49	18.0	6.25	5.27	100.8
2011 Average	3.95	5.63	11.03	96.3	8.91	67.3	5.13	16.3	7.48	4.89	101.2
2012 January		4.85	9.67	95.8	8.06	71.5	4.59	16.0	NA	3.82	95.0
February		4.73	9.52	95.8	7.77	70.1	4.19	16.2	NA	3.46	95.3
March		4.84	10.45	95.8	8.16	68.2	3.71	15.9	NA	3.09	95.2
April		4.19	11.01	94.8	8.00	62.9	3.21	15.5	NA	2.81	96.4
May		4.30	12.66	95.0	8.12	59.2	3.02	15.5	NA	3.05	96.0
June		4.63	14.25	95.1	8.40	59.2	3.34	15.5	NA	3.21	95.8
July	. E 2.59	4.88	15.20	95.1	8.49	58.0	3.60	16.0	NA	3.54	95.8
August	. <sup>E</sup> 2.86 . <sup>E</sup> 2.71	5.13 4.76	15.89	94.5 94.4	8.65 8.32	56.0	3.83 3.56	16.5 16.4	NA NA	3.61	95.2 96.0
September		4.76	14.81 11.78	94.4	8.03	56.5 59.8	3.95	16.3	NA NA	3.54 4.00	95.9
October		4.00	10.06	94.4	8.03	65.1	3.95 4.46	16.8	NA NA	4.43	95.9
November December		4.79	9.75	95.8	8.11	68.6	4.72	17.3	NA NA	4.43	94.3
Average		4.73	10.71	95.3	8.10	65.2	3.89	16.2	8.04	3.54	95.5
2013 January		4.52	9.17	96.0	7.81	70.8	4.58	17.3	NA	4.56	95.2
February		4.56	9.24	95.6	7.85	70.2	4.54	17.2	NA	4.59	94.5
March	. NA	4.75	9.34	95.5	7.82	69.3	4.60	17.0	NA	4.50	94.9
April		5.16	10.41	95.1 95.2	8.23	66.6 63.1	4.97 5.03	16.9	NA NA	4.84 4.79	95.3 95.4
May		5.54 5.74	12.61 14.97	95.2 94.9	8.77 9.10	63.1 59.1	5.03 4.92	16.4 16.3	NA NA	4.79 4.56	95.4 95.1
June		5.74 5.51	16.31	94.9 94.8	9.10	59.1 57.6	4.92 4.50	16.3	NA NA	4.34	95.1 94.6
July August		5.23	16.44	94.8 94.8	9.02	56.9	4.35	16.1	NA NA	4.03	94.6
September		5.20	15.69	94.9	8.82	57.3	4.38	16.6	NA NA	4.03	94.0 95.1
October		4.87	12.48	95.2	8.35	61.2	4.39	16.9	NA NA	4.19	94.9
November		4.77	10.10	95.5	7.96	66.1	4.63	17.2	NA	4.36	93.9
December		4.91	9.15	95.7	7.86	69.8	4.03	17.4	NA NA	5.11	94.9
Average	. NA	4.88	10.33	95.5	8.13	66.4	4.66	16.8	NA	4.49	94.9
2014 January	. NA	5.58	R 9.26	95.7	R 8.10	71.1	5.61	16.5	NA	7.46	95.1
February	. NA	6.31	9.76	95.0	8.67	70.9	6.55	17.0	NA	7.78	93.2
2-Month Average	. NA	5.91	9.49	95.4	8.37	71.0	6.07	16.8	NA	7.61	94.2
2013 2-Month Average 2012 2-Month Average		4.54 4.79	9.21 9.60	95.8 95.8	7.83 7.93	70.5 70.8	4.56 4.39	17.2 16.1	NA NA	4.58 3.64	94.9 95.2

a Prices are not adjusted for inflation. See "Nominal Dollars" in Glossary.
b See Note 8, "Natural Gas Prices," at end of section.
c Commercial sector, including commercial combined-heat-and-power (CHP) and commercial electricity-only plants. See Note 2, "Classification of Power Plants Into Energy-Use Sectors," at end of Section 7.
d Industrial sector, including industrial combined-heat-and-power (CHP) and industrial electricity-only plants. See Note 2, "Classification of Power Plants Into Energy-Use Sectors," at end of Section 7.
e The electric power sector comprises electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public. Through 2001, data are for electric utilities only; beginning in 2002, data also include independent power producers.
f See "Natural Gas Wellhead Price" in Glossary.
See "Citygate" in Glossary.
I Includes taxes.
The percentage of the sector's consumption in Table 4.3 for which price data

<sup>&</sup>lt;sup>1</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.

j Much of the natural gas delivered for vehicle fuel represents deliveries to fueling stations that are used primarily or exclusively by fleet vehicles. Thus, the prices are often those associated with the cost of gas in the operation of fleet vehicles.

K Percentages exceed 100 percent when reported natural gas receipts are

K Percentages exceed 100 percent when reported natural gas receipts are greater than reported natural gas consumption—this can occur when combined-heat-and-power plants report fuel receipts related to non-electric

combined-heat-and-power plants report fuel receipts related to non-electric generating activities.

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

Notes: • Prices are for natural gas, plus a small amount of supplemental gaseous fuels. • Prices are intended to include all taxes. See Note 8, "Natural Gas Prices," at end of section. • Wellhead annual and year-to-date prices are simple averages of the monthly prices; all other annual and year-to-date prices are volume-weighted averages of the monthly prices. • Geographic coverage is the 50 states and the District of Columbia.

Web Page: See http://www.eia.gov/totalenergy/data/monthly/#prices (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1976.

Sources: See end of section.

## **Energy Prices**

Note 1. Crude Oil Refinery Acquisition Costs. Beginning with January 1981, refiner acquisition costs of crude oil are from data collected on U.S. Energy Information Administration (EIA) Form EIA-14, "Refiners' Monthly Cost Report." Those costs were previously published from data collected on Economic Regulatory Administration (ERA) Form ERA-49, "Domestic Crude Oil Entitlements Program Refiners Monthly Report." Form ERA-49 was discontinued with the decontrol of crude oil on January 28, 1981. Crude oil purchases and costs are defined for Form EIA-14 in accordance with conventions used for Form ERA-49. The respondents for the two forms are also essentially the same. However, due to possible different interpretations of the filing requirements and a different method for handling prior period adjustments, care must be taken when comparing the data collected on the two forms.

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

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

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

**Note 3. Crude Oil F.O.B. Costs.** F.O.B. literally means "Free on Board." It denotes a transaction whereby the seller makes the product available with an agreement on a given port at a given price; it is the responsibility of the buyer to arrange for the transportation and insurance.

**Note 4.** Crude Oil Landed Costs. The landed cost of imported crude oil from selected countries does not represent the total cost of all imported crude. Prior to April 1975, imported crude costs to U.S. company-owned refineries in the Caribbean were not included in the landed cost, and costs of crude oil from countries that export only small amounts to the United States were also excluded. Beginning in April 1975, however, coverage was expanded to include U.S. company-owned refineries in the Caribbean. Landed costs do not include supplemental fees.

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

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

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

**Note 6. Historical Petroleum Prices.** Starting in January 1983, Form EIA-782, "Monthly Petroleum Product Sales Report," replaced 10 previous surveys. Every attempt was made to continue the most important price series. However, prices published through December 1982 and those

published since January 1983 do not necessarily form continuous data series due to changes in survey forms, definitions, instructions, populations, samples, processing systems, and statistical procedures. To provide historical data, continuous series were generated for annual data 1978-1982 and for monthly data 1981 and 1982 by estimating the prices that would have been published had Form EIA-782 survey and system been in operation at that time. This form of estimation was performed after detailed adjustment was made for product and sales type matching and for discontinuity due to other factors. An important difference between the previous and present prices is the distinction between wholesale and resale and between retail and end user. The resale category continues to include sales among resellers. However, sales to bulk consumers, such as utility. industrial, and commercial accounts previously included in the wholesale category, are now counted as made to end users. The end-user category continues to include retail sales through company-owned and operated outlets but also includes sales to the bulk consumers such as agriculture, industry, and electric utilities. Additional information may be found in "Estimated Historic Time Series for the EIA-782," a feature article by Paula Weir, printed in the December 1983 [3] Petroleum Marketing Monthly, published by EIA.

Note 7. Electricity Retail Prices. Average annual retail prices of electricity have the following plant coverage: Through 1979, annual data are for Classes A and B privately owned electric utilities only. For 1980–1982, annual data are for selected Class A utilities whose electric operating revenues were \$100 million or more during the previous year. For 1983, annual data are for a selected sample of electric utilities. Beginning in 1984, data are for a census of electric utilities. Beginning in 1996, annual data also include energy service providers selling to retail customers.

Average monthly retail prices of electricity have the following plant coverage: Through 1985, monthly data are derived from selected privately owned electric utilities and, therefore, are not national averages. Beginning in 1986, monthly data are based on a sample of publicly and privately owned electric utilities. Beginning in 1996, monthly data also include energy service providers selling to retail customers.

Preliminary monthly data are from Form EIA-826, "Monthly Electric Sales and Revenue Report With State Distributions Report," which is a monthly collection of data from approximately 450 of the largest publicly and privately owned electric utilities as well as a census of energy service providers with retail sales in deregulated states; a model is then applied to the collected data to estimate for the entire universe of U.S. electric utilities. Preliminary annual data are the sum of the monthly revenues divided by the sum of the monthly sales. When final annual data become available each year from Form EIA-861, "Annual Electric Power Industry Report," their ratios

to the preliminary Form EIA-826 values are used to derive adjusted final monthly values.

Note 8. Natural Gas Prices. Natural gas prices are intended to include all taxes. Instructions on the data collection forms specifically direct that all federal, state, and local taxes, surcharges, and/or adjustments billed to consumers are to be included. However, sales and other taxes itemized on more than 3,000 consumers' bills are sometimes excluded by the reporting utilities. Deliveredto-consumers prices for 1987 forward represent natural gas delivered and sold to residential, commercial, industrial, vehicle fuel, and electric power consumers. They do not include the price of natural gas delivered on behalf of third parties to residential, commercial, industrial, and vehicle fuel customers except for certain states in the residential and commercial sectors for 2002 forward. Volumes of natural gas delivered on behalf of third parties are included in the consumption data shown in Table 4.3. Additional information is available in EIA, Natural Gas Monthly, Appendix C.

## **Table 9.1 Sources**

## **Domestic First Purchase Price**

1949–1976: U.S. Department of the Interior (DOI), Bureau of Mines (BOM), *Minerals Yearbook*, "Crude Petroleum and Petroleum Products" chapter.

1977: Federal Energy Administration, based on Form FEA-P124, "Domestic Crude Oil Purchaser's Monthly Report." 1978–2009: U.S. Energy Information Administration (EIA), *Petroleum Marketing Annual 2009*, Table 1.

2010 forward: EIA, *Petroleum Marketing Monthly*, May 2014, Table 1.

## F.O.B. and Landed Cost of Imports

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

October–December 1977: EIA, Form FEA-F701-M-0, "Transfer Pricing Report."

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

2010 forward: EIA, *Petroleum Marketing Monthly*, May 2014. Table 1.

### **Refiner Acquisition Cost**

1968–1973: EIA estimates. The cost of domestic crude oil was derived by adding estimated transportation costs to the reported average domestic first purchase price. The cost of imported crude oil was derived by adding an estimated ocean transport cost based on the published "Average Freight Rate Assessment" to the average "Free Alongside Ship" value published by the U.S. Bureau of the Census.

1974–1976: DOI, BOM, *Minerals Yearbook*, "Crude Petroleum and Petroleum Products" chapter.

1977: January–September, FEA, based on Form FEA-P110-M-1, "Refiners' Monthly Cost Allocation Report." October–December, EIA, based on Form FEA-P110-M-1, "Refiners' Monthly Cost Allocation Report."

1978–2009: EIA, Petroleum Marketing Annual 2009, Table

2010 forward: EIA, *Petroleum Marketing Monthly*, May 2014, Table 1.

## **Table 9.2 Sources**

October 1973–September 1977: Federal Energy Administration, Form FEA-F701-M-0, "Transfer Pricing Report." October 1977–December 1977: U.S. Energy Information Administration (EIA), Form FEA-F701-M-0, "Transfer Pricing Report."

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

2008 forward: EIA, *Petroleum Marketing Monthly*, May 2014, Table 21.

## **Table 9.9 Sources**

1973–September 1977: Federal Power Commission, Form FPC-423, "Monthly Report of Cost and Quality of Fuels for Electric Utility Plants."

October 1977–December 1977: Federal Energy Regulatory Commission, Form FERC-423, "Monthly Report of Cost and Quality of Fuels for Electric Utility Plants."

1978 and 1979: U.S. Energy Information Administration (EIA), Form FERC-423, "Monthly Report of Cost and Quality of Fuels for Electric Utility Plants."

1980–1989: EIA, Electric Power Monthly, May issues.

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

2001–2007: EIA, *Electric Power Monthly*, October 2008, Table 4.1; Federal Energy Regulatory Commission, Form FERC-423, "Monthly Report of Cost and Quality of Fuels for Electric Utility Plants"; and EIA, Form EIA-423, "Monthly Cost and Quality of Fuels for Electric Plants Report."

2008 forward: EIA, *Electric Power Monthly*, April 2014, Table 4.1; and Form EIA-923, "Power Plant Operations Report."

## **Table 9.10 Sources**

## All Prices Except Vehicle Fuel and Electric Power

1949–2007: U.S. Energy Information Administration (EIA), *Natural Gas Annual (NGA)*, annual reports and unpublished revisions.

2008 forward: EIA, *Natural Gas Monthly (NGM)*, April 2014, Table 3.

## **Vehicle Fuel Price**

1989 forward: EIA, NGA, annual reports.

#### **Electric Power Sector Price**

1967-1972: EIA, NGA, annual reports.

1973-1998: EIA, NGA 2000, Table 96.

1999-2002: EIA, NGM, October 2004, Table 4.

2003–2007: Federal Energy Regulatory Commission, Form FERC-423, "Monthly Report of Cost and Quality of Fuels for Electric Utility Plants," and EIA, Form EIA-423 "Monthly Cost and Quality of Fuels for Electric Plants Report."

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

## Percentage of Residential Sector

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

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

## **Percentage of Commercial Sector**

1987–2007: 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.

2008 forward: EIA, NGM, April 2014, Table 3.

## **Percentage of Industrial Sector**

1982–2007: 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. 2008 forward: EIA, NGM, April 2014, Table 3.

## **Percentage of Electric Power Sector**

1973–2001: Calculated by EIA as the quantity of natural gas receipts by electric utilities reported on Form FERC-423, "Monthly Report of Cost and Quality of Fuels for Electric Utility Plants" (and predecessor forms) divided by the quantity of natural gas consumed by the electric power sector (for 1973–1988, see *Monthly Energy Review (MER)*, Table 7.3b; for 1989–2001, see MER, Table 7.4b).

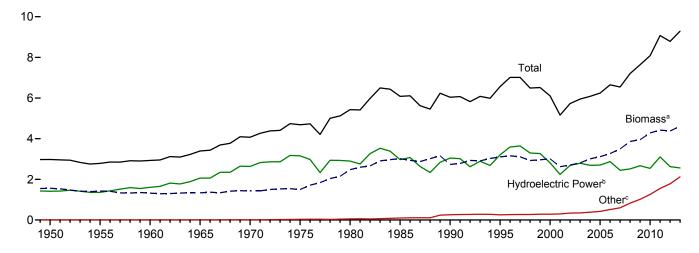
2002–2007: Calculated by EIA as the quantity of natural gas receipts by electric utilities and independent power producers reported on Form FERC-423, "Monthly Report of Cost and Quality of Fuels for Electric Utility Plants," and EIA-423, "Monthly Cost and Quality of Fuels for Electric Plants Report,"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

2008 forward: Calculated by EIA as the quantity of natural gas receipts by electric utilities and independent power producers reported on Form EIA-923, "Power Plant Operations Report," divided by the quantity of natural gas consumed by the electric power sector (see MER, Table 7.4b).

# 10. Renewable Energy

Figure 10.1 Renewable Energy Consumption (Quadrillion Btu)

Total and Major Sources, 1949-2013

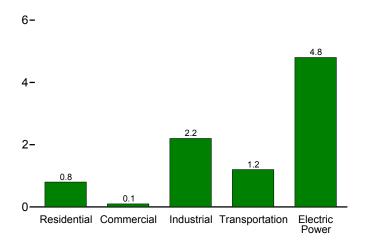


By Source, 2013

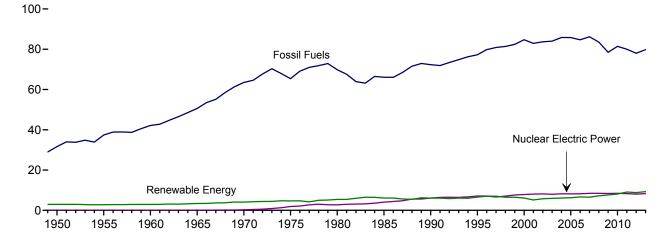
2
2.6

2
1
Hydro- Wood a Bio- fuelsa Wind Waste Solar/ Geo- pya thermala

By Sector, 2013



#### Compared With Other Resources, 1949–2013



<sup>&</sup>lt;sup>a</sup> See Table 10.1 for definition.

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

<sup>&</sup>lt;sup>b</sup> Conventional hydroelectric power.

<sup>°</sup> Geothermal, solar/PV, and wind.

Table 10.1 Renewable Energy Production and Consumption by Source

(Trillion Btu)

		Production	a					Consumpti	on			
	Bion	nass	Total	Under					Bion	nass		Total
	Bio- fuels <sup>b</sup>	Total <sup>c</sup>	Renew- able Energy <sup>d</sup>	Hydro- electric Power <sup>e</sup>	Geo- thermal <sup>f</sup>	Solar/ PV <sup>g</sup>	Wind <sup>h</sup>	Wood <sup>i</sup>	Waste <sup>j</sup>	Bio- fuels <sup>k</sup>	Total	Renew- able Energy
1950 Total	NA	1,562	2,978	1,415	NA	NA	NA	1,562	NA	NA	1,562	2,978
1955 Total	NA	1,424	2,784	1,360	NA	NA	NA	1,424	NA	NA	1,424	2,784
1960 Total	NA	1,320	2,928	1,608	(s)	NA	NA	1,320	NA	NA	1,320	2,928
1965 Total	NA	1,335	3,396	2,059	2	NA	NA	1,335	NA	NA	1,335	3,396
1970 Total	NA	1,431	4,070	2,634	6	NA	NA	1,429	2	NA	1,431	4,070
1975 Total	NA	1,499 2.475	4,687	3,155	34 53	NA NA	NA	1,497	2 2	NA	1,499	4,687
1980 Total 1985 Total	NA 93	2,475 3,016	5,428 6,084	2,900 2,970	97	NA (s)	NA (s)	2,474 2,687	236	NA 93	2,475 3,016	5,428 6,084
1990 Total	111	2,735	6,041	3,046	171	59	29	2,216	408	111	2,735	6,041
1995 Total	198	3,099	6,558	3,205	152	69	33	2,370	531	200	3,101	6,560
2000 Total	233	3,006	6,104	2,811	164	66	57	2,262	511	236	3.008	6,106
2001 Total	254	2,624	5,164	2,242	164	64	70	2,006	364	253	2,622	5,163
2002 Total	308	2,705	5,734	2,689	171	63	105	1,995	402	303	2,701	5,729
2003 Total	402	2,805	5,947	2,793	173	62	113	2,002	401	404	2,807	5,948
2004 Total	487	2,998	6,069	2,688	178	63	142	2,121	389	499	3,010	6,081
2005 Total	564 720	3,104 3,216	6,229 6,599	2,703 2,869	181 181	63 68	178 264	2,137 2,099	403 397	577 771	3,117 3,267	6,242 6.649
2006 Total	978	3,480	6.528	2,446	186	76	341	2,099	413	990	3,492	6.541
2008 Total	1,387	3,881	7,219	2,511	192	89	546	2,059	435	1,370	3,865	7,202
2009 Total	1.584	3,967	7,655	2,669	200	98	721	1.931	452	1,568	3,950	7,638
2010 Total	1,884	4,332	8,128	2,539	208	126	923	1,981	468	1,837	4,285	8,081
2011 Total	2,044	4,516	9,170	3,103	212	171	1,168	2,010	462	1,948	4,420	9,074
2012 January	177	388	772	220	17	17	130	173	38	156	367	751
February	164	363	693	193	16	16	105	162	36	152	351	681
March	171	377	792	247	18	18	133	166	40	164	370	785
April	164	358	765	250	17	18	121	157	37	160	354	761
May	173	376	806	273	18	20	119	165	38	170	373	803
June	165	367	772	254	17	20	114	165	37	165	367	772
July	157 162	368 375	743 712	252 219	18 18	21 20	84 81	172 173	39 39	158 168	369 380	744 718
August September	151	356	644	168	18	20	84	168	37	150	355	643
October	153	363	678	157	18	20	120	168	41	159	368	683
November	150	358	683	178	18	19	111	167	41	150	358	684
December	155	372	766	219	19	19	138	174	42	152	369	763
Total	1,942	4,419	8,826	2,629	212	227	1,340	2,010	467	1,902	4,379	8,786
2013 January	152	376	795	239	19	22	139	183	41	151	375	794
February	139	340	706	195	17	21	132	164	36	140	340	707
March	161	381	770	197	19	25	149	180	40	161	382	771
April	162	366	809	236	18	25	165	166	38	163	367	810
May	171	386	857	272	18	26	155	175	40	171	386	857
June	169 172	385 402	821 813	260 259	18 19	27 27	131 106	176 190	40 41	170 169	386 399	822 810
July August	168	392	737	207	19	28	91	184	40	166	399	734
September	164	377	695	161	18	27	111	175	38	167	380	698
October	178	397	739	165	19	28	131	178	40	180	398	740
November	178	396	758	169	18	25	151	179	39	172	390	752
December	187	417	799	203	19	26	134	187	43	184	414	795
Total	2,001	4,614	9,298	2,561	221	307	1,595	2,138	476	1,993	4,607	9,291
2014 January	172	395	819	206	19	29	171	183	40	165	388	812
February	158	359	702	166	17	27	133	166	35	155	356	699
2-Month Total	331	754	1,521	372	36	56	304	349	74	320	743	1,511
2013 2-Month Total 2012 2-Month Total	291 341	715 751	1,501 1,465	434 413	36 34	43 33	272 235	347 335	77 75	291 308	715 718	1,500 1,432

<sup>&</sup>lt;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

Wood and wood-derived fuels.

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

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

Sources: Tables 10.2a–10.4.

production of fuel ethanol and biodiesel.

d Hydroelectric power, geothermal, solar thermal/photovoltaic, wind, and

d Hydroelectric power, geurierinar, some transfer 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 direct use energy.

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.

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

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

k Fuel ethanol (minus denaturant) and biodiesel consumption, plus losses and co-products from the production of fuel ethanol and biodiesel.

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

Notes: • Most data for the residential, commercial, industrial, and transportation sources are sources for Tables 10.2a and 10.2b. • See

Table 10.2a Renewable Energy Consumption: Residential and Commercial Sectors

(Trillion Btu)

		Reside	ntial Sector					Co	mmercial	Sectora			
			Biomass							Bio	mass		
	Geo- thermal <sup>b</sup>	Solar/ PV <sup>C</sup>	Wood <sup>d</sup>	Total	Hydro- electric Power <sup>e</sup>	Geo- thermal <sup>b</sup>	Solar/ PV <sup>f</sup>	Windg	Woodd	Wasteh	Fuel Ethanol <sup>i</sup>	Total	Total
1950 Total 1955 Total 1965 Total 1965 Total 1965 Total 1970 Total 1970 Total 1970 Total 1980 Total 1980 Total 1980 Total 1980 Total 1990 Total 2000 Total 2001 Total 2002 Total 2003 Total 2004 Total 2005 Total 2006 Total 2007 Total 2008 Total 2008 Total 2009 Total 2009 Total 2007 Total 2008 Total 2009 Total 2010 Total 2010 Total	NA NA NA NA NA NA 10 13 14 16 18 22 26 33 37 40	NAA NAA NAA NAA NAA NAA S64 61 57 57 58 670 80 114 153	1,006 775 627 468 401 425 850 1,010 580 520 420 370 380 400 410 430 380 420 470 500 440 440	1,006 775 627 468 401 425 850 1,010 641 591 489 438 448 470 481 504 462 512 577 622 591 643	NA NA NA NA NA NA 1 1 1 (s) 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	NA NA NA NA NA NA NA NA NA 112 144 114 117 119 20	NAAA NAA NAA NAA NAA NAA NAA NAA NAA NA	NA A A A A A A A A A A A A A A A A A A	19 15 12 9 8 8 21 24 66 72 71 67 69 70 65 70 73 73 72 69	NA NA NA NA NA NA 240 47 25 26 29 34 34 36 36 43	NA A A A NA A NA A NA A NA A NA A NA A	19 15 12 9 8 8 8 21 24 94 113 119 95 101 105 105 103 103 109 112 111	19 15 12 9 8 8 21 24 98 118 128 101 104 113 118 120 118 125 129 130
Potential September October November December Total	3 3 3 3 3 3 3 3 3 3 3 3 3	16 15 16 15 16 16 15 16 16 186	36 33 36 34 36 34 36 34 36 34 36 420	55 51 55 55 55 55 55 55 55 55 55 55 55 5	(S) (S) (S) (S) (S) (S) (S) (S) (S) (S)	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	(s) (s) (s) (s) (s) (s) (s) (s) (s) (s)	(s) (s) (s) (s) (s) (s) (s) (s) (s) (s)	5555555555555 <b>61</b>	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 5	(s) (s) (s) (s) (s) (s) (s) (s) (s) (s)	9999999999999 <b>109</b>	11 10 11 11 11 11 11 11 11 11 11
2013 January February March April May June July August September October November December Total	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	19 17 19 18 19 18 19 18 19 18 19 219	49 44 49 48 49 48 49 48 49 48 49 580	71 64 71 69 71 69 71 71 69 71 89	(S) (S) (S) (S) (S) (S) (S) (S) (S) (S)	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	(s) (s) (s) (s) (s) (s) (s) (s) (s) (s)	(S) (S) (S) (S) (S) (S) (S) (S) (S) (S)	656666666666 <b>70</b>	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	(S) (S) (S) (S) (S) (S) (S) (S) (S) (S)	10 9 10 10 10 10 10 10 10 10 10 10	12 11 12 12 12 12 12 12 12 12 12 12 143
2014 January February 2-Month Total	3 3 <b>6</b>	21 19 <b>41</b>	49 44 <b>94</b>	74 67 <b>141</b>	(s) (s) <b>(s)</b>	2 2 <b>3</b>	(s) (s) <b>(s)</b>	(s) (s) <b>(s)</b>	6 5 <b>11</b>	4 3 <b>8</b>	(s) (s) <b>(s)</b>	10 9 <b>19</b>	12 11 <b>23</b>
2013 2-Month Total 2012 2-Month Total	6 6	35 31	94 69	136 106	(s) (s)	3 3	(s) (s)	(s) (s)	11 10	8 7	(s) (s)	20 18	23 21

megawatt or greater.

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

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

i The fuel ethanol (minus denaturant) portion of motor fuels, such as E10,

consumed by the commercial sector.

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

Notes: • Data are estimates, except for commercial sector solar/PV, hydroelectric power, wind, and waste. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia.

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

beginning in 1973.
Sources: See end of section.

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

<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.

Includes distributed solar internal and it is energy used in the commercial, independent and electric power sectors.

d Wood and wood-derived fuels.
e Conventional hydroelectricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6).
f Photovoltaic (PV) electricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6) at commercial plants with capacity of 1

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

					Industri	al Sectora					Trans	portation S	Sector
							Biomass					Biomass	
	Hydro- electric Power <sup>b</sup>	Geo- thermal <sup>C</sup>	Solar/ PV <sup>d</sup>	Wind <sup>e</sup>	Wood <sup>f</sup>	Waste <sup>g</sup>	Fuel Ethanol <sup>h</sup>	Losses and Co- products <sup>i</sup>	Total	Total	Fuel Ethanol <sup>j</sup>	Bio- diesel	Total
1950 Total 1955 Total 1960 Total 1960 Total 1965 Total 1970 Total 1970 Total 1975 Total 1985 Total 1985 Total 1995 Total 1995 Total 2000 Total 2001 Total 2002 Total 2003 Total 2004 Total 2004 Total	69 38 39 33 34 32 33 31 55 42 33 39 43 33	NAAAAAAA 23455344	NA NA NA NA NA 	NA NA NA NA NA NA - - -	532 631 680 855 1,019 1,063 1,645 1,442 1,652 1,636 1,443 1,363 1,476 1,465	NA NA NA NA NA 230 192 195 145 129 146 142 132	NA NA NA NA NA 1 1 2 1 3 3 4 6 7	NA NA NA NA NA NA 49 86 99 108 169 203 230	532 631 680 855 1,019 1,063 1,600 1,918 1,684 1,934 1,881 1,676 1,679 1,817	602 669 719 888 1,053 1,096 1,633 1,951 1,717 1,992 1,928 1,719 1,720 1,725 1,853 1,873	NA NA NA NA NA NA 112 135 141 168 228 228 2327	NA A A A A A A A A A A A A A A A A A A	NA NA NA NA NA NA 50 60 112 135 142 230 230 239
2005 Total 2006 Total 2007 Total 2008 Total 2009 Total 2010 Total 2011 Total	29 16 17 18 16 17	4 5 5 4 4 4	- - - (s) (s)	- - - - - (s)	1,452 1,472 1,413 1,339 1,178 1,273 1,309	146 130 145 143 154 168 165	10 10 12 13 17	285 377 532 617 742 771	1,837 1,897 1,944 2,026 1,963 2,201 2,261	1,973 1,930 1,965 2,047 1,985 2,221 2,283	327 442 557 786 894 1,041 1,045	33 45 39 41 33 113	475 602 825 935 1,075 1,158
Petron July September October November Total	3 2 2 2 2 2 1 1 2 2 2 2 2 2 2 2 2 2 2 2	(s) (s) (s) (s) (s) (s) (s) (s) (s) (s)	(s) (s) (s) (s) (s) (s) (s) (s) (s) (s)	(S) (S) (S) (S) (S) (S) (S) (S) (S) (S)	115 108 109 105 111 109 113 115 112 113 113 117 <b>1,339</b>	13 13 14 13 13 12 13 13 12 14 14 15	1 1 1 1 1 1 1 1 1 1 1 1 1	67 61 63 61 64 61 58 60 56 57 57 59	196 184 188 180 188 183 186 189 181 186 185 192 2,238	199 186 191 182 191 185 187 191 183 188 188 194 <b>2,265</b>	82 88 86 92 90 88 95 83 91 83 86	6 8 11 12 12 12 10 11 9 6 114	87 89 99 98 104 102 98 106 92 100 92 92 <b>1,159</b>
Pebruary February March April May June July August September October November December Total	3 3 3 2 3 3 3 2 2 2 2 2 2 3 3 3	(s) (s) (s) (s) (s) (s) (s) (s) (s) (s)	(s) (s) (s) (s) (s) (s) (s) (s) (s) (s)	(S) (S) (S) (S) (S) (S) (S) (S) (S) (S)	111 99 108 100 104 106 116 110 103 105 107 111 <b>1,281</b>	15 13 14 14 14 15 15 14 15 14 15	1 1 1 1 1 1 1 1 1 1 1 1 1	57 52 59 59 63 62 62 61 59 65 64 68 <b>730</b>	184 166 182 175 182 183 193 186 178 186 187 196 <b>2,198</b>	188 169 186 177 186 186 197 189 180 189 189 199 <b>2,235</b>	83 78 89 90 94 92 91 90 88 93 89 92 <b>1,069</b>	9 12 12 13 15 15 13 18 21 16 22 <b>175</b>	92 87 101 102 107 106 105 103 106 114 106 114 <b>1,244</b>
2014 January February 2-Month Total	3 2 <b>6</b>	(s) (s) 1	(s) (s) <b>(s)</b>	(s) (s) <b>(s)</b>	105 96 <b>201</b>	15 13 <b>27</b>	1 1 3	65 58 <b>124</b>	186 168 <b>354</b>	190 171 <b>361</b>	87 82 <b>170</b>	11 13 <b>24</b>	98 95 <b>194</b>
2013 2-Month Total 2012 2-Month Total	6 5	1 1	(s) (s)	(s) (s)	210 224	28 26	2 2	109 128	350 380	357 385	161 163	17 13	179 177

beginning in 1973.
Sources: See end of section.

a Industrial sector, including industrial combined-heat-and-power (CHP) and industrial electricity-only plants. See Note 2, "Classification of Power Plants Into Energy-Use Sectors," at end of Section 7.
b Conventional hydroelectricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6).
c Geothermal heat pump and direct use energy.
d Photovoltaic (PV) electricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6) at industrial plants with capacity of 1 menawati to greater. megawatt or greater.

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

Wood and wood-derived fuels.

<sup>9</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 h The fuel ethanol (minus denaturant) portion of motor fuels, such as E10,

consumed by the industrial sector.

I Losses and co-products from the production of fuel ethanol and biodiesel. Does not include natural gas, electricity, and other non-biomass energy used in the production of fuel ethanol and biodiesel—these are included in the industrial sector consumption statistics for the appropriate energy source.

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

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

Notes: • Data are estimates, except for industrial sector hydroelectric power in 1949–1978 and 1989 forward, solar/PV, and wind. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia.

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

Table 10.2c Renewable Energy Consumption: Electric Power Sector

(Trillion Btu)

	Hydro-	0				Biomass		
	electric Power <sup>a</sup>	Geo- thermal <sup>b</sup>	Solar/PV <sup>c</sup>	Windd	Woode	Waste <sup>f</sup>	Total	Total
950 Total	1.346	NA	NA	NA	5	NA	5	1.351
955 Total	1,322	NA	NA	NA	3	NA	3	1,325
960 Total	1,569	(s)	NA	NA	2	NA	2	1,571
965 Total	2.026	2	NA.	NA	3	NA	3	2,031
970 Total	2,600	<u>-</u>	NA	NA	ĭ	2	4	2,609
975 Total	3,122	34	NA NA	NA NA	(s)	2	2	3,158
980 Total	2.867	53	NA NA	NA NA	3	2	4	2,925
985 Total	2,937	97	(s)	(s)	8	7	14	3,049
990 Total <sup>g</sup>	3.014	161	4	29	129	188	317	3,524
995 Total	3,149	138	5	33	125	296	422	3,747
000 Total	2,768	144	5	57	134	318	453	3,427
001 Total	2,209	142	6	70	126	211	337	2,763
	2,209	147	6	105		230	380	
002 Total			5		150 167			3,288
003 Total	2,749 2,655	146 148	5 6	113 142	167 165	230 223	397 388	3,411 3,339
004 Total								
005 Total	2,670	147	6	178	185	221	406	3,406
006 Total	2,839	145	5	264	182	231	412	3,665
007 Total	2,430	145	6	341	186	237	423	3,345
008 Total	2,494	146	9	546	177	258	435	3,630
009 Total	2,650	146	.9	721	180	261	441	3,967
010 Total	2,521	148	12	923	196	264	459	4,064
011 Total	3,085	149	17	1,167	182	255	437	4,855
012 January	217	12	1	130	17	22	39	398
February	191	11	1	105	16	20	36	344
March	244	12	2	133	16	22	37	429
April	248	12	3	121	13	21	33	417
May	271	12	4	119	14	22	36	442
June	252	12	5	114	16	22	38	421
July	251	13	5	84	18	23	40	392
August	218	12	4	81	18	23	40	355
September	166	12	4	84	16	21	38	304
October	155	13	4	120	15	22	38	330
November	176	13	3	111	15	23	38	341
December	217	13	3	138	16	24	40	412
Total	2,606	148	40	1,339	190	262	453	4,586
013 January	236	14	3	139	17	22	38	430
February	192	12	4	132	15	19	34	375
March	194	14	6	149	17	22	39	401
April	233	13	7	164	12	21	33	450
May	269	13	8	155	16	22	38	481
June	257	13	9	131	17	22	39	449
July	256	13	8	106	19	22	41	425
August	204	13	9	91	20	21	41	359
September	159	13	9	111	18	21	39	331
October	163	14	9	130	18	22	39	355
November	167	12	7	151	19	21	40	377
December	200	14	7	134	20	24	44	398
Total	2,529	157	85	1,595	207	258	465	4,831
014 January	202	13	7	171	22	21	43	437
February	163	12	8	133	20	18	39	355
2-Month Total	366	25	15	304	43	39	82	793
013 2-Month Total	428	26	7	271	32	40	73	805

<sup>&</sup>lt;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

b Geothermal electricity net generation (converted to bitu using the lossil-rucis) heat rate—see Table A6).

<sup>c</sup> Solar thermal and photovoltaic (PV) electricity net generation (converted to Bitu using the fossil-fuels heat rate—see Table A6).

<sup>d</sup> Wind electricity net generation (converted to Bitu 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). tire-derived fuels).

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

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

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

Web Page: See http://www.eia.gov/totalenergy/data/monthly/#renewable (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.
Sources: Tables 7.2b, 7.4b, and A6.

Table 10.3 Fuel Ethanol Overview

	Feed- stock <sup>a</sup>	Losses and Co- products <sup>b</sup>	Dena- turant <sup>c</sup>	P	roductiond		Trade <sup>d</sup> Net Imports <sup>e</sup>	Stocks <sup>d,f</sup>	Stock Change <sup>d,g</sup>	Cor	nsumption	d	Consump- tion Minus Denaturant <sup>h</sup>
	TBtu	TBtu	Mbbl	Mbbl	MMgal	TBtu	Mbbl	Mbbl	Mbbl	Mbbl	MMgal	TBtu	TBtu
1981 Total	13	6	40	1,978	83	7	NA.	NA.	NA	1,978	83	7	7
1985 Total	93	42	294	14,693	617	52	NA	NA	NA	14,693	617	52	51
1990 Total	111	49	356	17,802	748	63	NA	NA	NA	17,802	748	63	62
1995 Total	198	86	647	32,325	1.358	115	387	2.186	-207	32,919	1,383	117	114
2000 Total	233	99	773	38,627	1.622	138	116	3,400	-624	39,367	1,653	140	137
2001 Total	253	108	841	42,028	1,765	150	315	4,298	898	41,445	1,741	148	144
2002 Total	307	130	1,019	50,956	2,140	182	306	6,200	1,902	49,360	2,073	176	171
2003 Total	400	169	1,335	66,772	2.804	238	292	5,978	-222	67,286	2.826	240	233
2004 Total	484	203	1,621	81,058	3,404	289	3,542	6,002	24	84,576	3,552	301	293
2005 Total	552	230	1.859	92,961	3,904	331	3,234	5,563	-439	96,634	4.059	344	335
2006 Total	688	285	2,326	116,294	4,884	414	17,408	8,760	3,197	130,505	5,481	465	453
2007 Total	914	376	3,105	155,263	6,521	553	10,457	10,535	1,775	163,945	6,886	584	569
2008 Total	1,300	531	4,433	221,637	9,309	790	12,610	14,226	3,691	230,556	9,683	821	800
2009 Total	1,517	616	5,688	260,424	10,938	928	4,720	16,594	2,368	262,776	11,037	936	910
2010 Total	1,839	742	6,506	316,617	13,298	1,127	-9,115	17,941	1,347	306,155	12,858	1,090	1,061
2011 Total	1,919	769	6,649	331,646	13,929	1,181	-24,365	18,238	297	306,984	12,893	1,093	1,065
2012 January	167	67	584	29,038	1,220	103	-1,773	21,475	3,237	24,028	1,009	86	83
February	154	61	531	26,647	1,119	95	-1,778	22,393	918	23,951	1,006	85	83
March	159	63	518	27,548	1,157	98	-1,591	22,583	190	25,767	1,082	92	89
April	152	61	495	26,346	1,107	94	-1,549	22,050	-533	25,330	1,064	90	88
May	159	63	520	27,616	1,160	98	-1,013	21,635	-415	27,018	1,135	96	94
June	153	61	502	26,513	1,114	94	-597	21,239	-396	26,312	1,105	94	91
July	145	58	503	25,236	1,060	90	-489	20,224	-1,015	25,762	1,082	92	89
August	150	60	526	26,092	1,096	93	654	19,180	-1,044	27,790	1,167	99	96
September	140	56	496	24,376	1,024	87	699	19,921	741	24,334	1,022	87	84
October	144	57	528	24,976	1,049	89	614	18,626	-1,295	26,885	1,129	96	93
November	142	57	527	24,744	1,039	88	1,011	19,992	1,366	24,389	1,024	87	84
December	147	59	534	25,582	1,074	91	-79	20,350	358	25,145	1,056	90	87
Total	1,814	722	6,264	314,714	13,218	1,120	-5,891	20,350	2,112	306,711	12,882	1,092	1,064
2013 January	144	57	504	24,935	1,047	89	-546	20,558	i-119	24,508	1,029	87	85
February	130	52	462	22,645	951	81	-727	19,580	-978	22,896	962	81	79
March	148	59	511	25,681	1,079	91	-264	18,941	-639	26,056	1,094	93	90
April	148	59	515	25,662	1,078	91	-559	17,645	-1,296	26,399	1,109	94	92
May	157	62	537	27,197	1,142	97	-535	16,810	-835	27,497	1,155	98 96	95 94
June	154	61	509	26,722	1,122	95	-170	16,395	-415 -722	26,967	1,133		
July	155	62	519	26,923	1,131	96	428	17,127	732	26,619	1,118	95 94	92 92
August	152	60	495	26,320	1,105	94	-52	16,971	-156	26,424	1,110		
September	147	59	499	25,564	1,074	91	-584	16,040	-931	25,911	1,088	92 97	90
October	161	64 64	538	27,995	1,176	100	-1,042	15,771	-269 100	27,222	1,143		94
November	161		532	27,915	1,172	99	-1,922	15,572	-199	26,192	1,100	93	91
December	170	68	563	29,405	1,235	105	-1,535	16,419	847	27,023	1,135	96	94
Total	1,827	728	6,184	316,964	13,312	1,128	-7,508	16,419	-4,258	313,714	13,176	1,117	1,089
2014 January	163	65	551	28,344	1,190	101	-2,044	17,086	667	25,633	1,077	91	89
February	146	58	491	25,401	1,067	90	-1,561	16,834	-252	24,092	1,012	86	84
2-Month Total	310	123	1,042	53,745	2,257	191	-3,604	16,834	415	49,726	2,088	177	173
2013 2-Month Total 2012 2-Month Total	274 321	109 128	966 1,115	47,580 55,685	1,998 2,339	169 198	-1,273 -3,551	19,580 22,393	-1,097 4,155	47,404 47,979	1,991 2,015	169 171	164 166

<sup>&</sup>lt;sup>a</sup> Total corn and other biomass inputs to the production of undenatured ethanol used for fuel ethanol.

b Losses and co-products from the production of fuel ethanol. Does not include

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 rededstock, losses and co-products, and denaturant are estimates. Beginning in 2009, only data for feedstock, and losses and co-products, and losses and co-products, and bases and co-products, and losses and co-products, and "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. Columbia.

Web Page: See http://www.eia.gov/totalenergy/data/monthly/#renewable (Excel and CSV files) for all available annual and monthly data beginning in 1981. Sources: See end of section.

natural gas, electricity, and other non-biomass energy used in the production of fuel ethanol—these are included in the industrial sector consumption statistics for the appropriate energy source.

C The amount of denaturant in fuel ethanol produced.

Includes denaturant.

e 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 (including industrial alcohol) exports.

f Stocks are at end of period.

<sup>&</sup>lt;sup>9</sup> A negative value indicates a decrease in stocks and a positive value indicates

an increase.  $^{\rm h}$  Consumption of fuel ethanol minus denaturant. Data for fuel ethanol minus denaturant are used to develop data for "Renewable Energy/Biomass" in Tables 10.1–10.2b, as well as in Sections 1 and 2.

Derived from the preliminary 2012 stocks value (20,677 thousand barrels), not the final 2012 value (20,350 thousand barrels) that is shown under "Stocks." NA=Not available.

**Table 10.4 Biodiesel Overview** 

							Trade							
	Feed- stock <sup>a</sup>	Losses and Co- products <sup>b</sup>	Pı	roduction		Imports	Exports	Net Imports <sup>c</sup>	Stocksd	Stock Change <sup>e</sup>	Bal- ancing Item <sup>f</sup>	Coi	nsumptio	n
	TBtu	TBtu	Mbbl	MMgal	TBtu	Mbbl	Mbbl	Mbbl	Mbbl	Mbbl	Mbbl	Mbbl	MMgal	TBtu
2001 Total	1 1 2 4 12 32 63 88 67 44 125	(s) (s) (s) (s) (s) 1 1 1 2	204 250 338 666 2,162 5,963 11,662 16,145 12,281 8,177 23,035	9 10 14 28 91 250 490 678 516 343 967	1 1 2 4 12 32 62 87 66 44 123	81 197 97 101 214 1,105 3,455 7,755 1,906 564 890	41 57 113 128 213 856 6,696 16,673 6,546 2,588 1,799	40 140 -17 -27 1 250 -3,241 -8,918 -4,640 -2,024 -908	NA NA NA NA NA NA NA OA 711 672 2,012	NA NA NA NA NA NA 711 -39 91,035	NA NA NA NA NA NA 733 0	244 390 322 639 2,163 6,213 8,422 7,228 7,663 6,192 21,092	10 16 14 27 91 261 354 304 322 260 886	1 2 2 3 12 33 45 39 41 33 113
Potal January February February March April May June July August September October November December Total	10 10 12 12 13 13 12 12 12 11 10 7 8 128	(s) (s) (s) (s) (s) (s) (s) (s) (s) (s)	1,751 1,887 2,251 2,237 2,428 2,223 2,127 2,176 1,949 1,792 1,363 1,406 23,588	74 79 95 94 102 93 89 91 82 75 57 59	9 10 12 12 13 12 11 12 10 10 7 8 126	48 72 25 32 75 132 166 55 108 60 9 71 <b>853</b>	258 125 189 230 320 392 426 403 295 209 65 143 <b>3,056</b>	-210 -53 -164 -198 -245 -260 -260 -348 -187 -149 -56 -72 -2,203	2,510 2,895 2,893 2,783 2,7710 2,348 2,262 2,011 2,059 2,183 1,865 2,083 <b>2,083</b>	499 384 -1 -1111 -73 -362 -86 -250 47 124 -318 219	0 0 0 0 0 0 0 0 0	1,042 1,450 2,088 2,149 2,256 2,325 1,953 2,079 1,715 1,519 1,624 1,114 <b>21,314</b>	44 61 88 90 95 98 82 87 72 64 68 47 <b>895</b>	6 8 11 12 12 10 11 9 8 9 6 <b>114</b>
2013 January	9 9 13 14 14 15 17 17 16 17 17 17 17 173	(s) (s) (s) (s) (s) (s) (s) (s) (s) (s)	1,578 1,611 2,332 2,532 2,635 2,685 3,045 3,055 3,021 3,136 3,041 3,217 31,887	66 68 98 106 111 113 128 127 132 128 135 <b>1,339</b>	8 9 12 14 14 16 16 16 17 17 171	30 52 406 304 385 682 338 364 683 1,101 1,387 1,765 <b>7,497</b>	16 59 185 371 554 587 426 687 380 536 303 375 <b>4,477</b>	14 -7 221 -67 -169 -95 -88 -323 303 565 1,084 1,390 3,020	2,110 2,109 2,434 2,625 2,635 2,709 2,956 3,210 3,166 2,994 4,058 4,509 4,509	h -58 -2 325 191 9 74 247 254 -44 -172 1,064 451 <b>2,340</b>	0 0 0 0 0 0 0 0 0	1,651 1,606 2,228 2,274 2,457 2,706 2,710 2,478 3,368 3,873 3,060 4,156 <b>32,567</b> 2,048	69 67 94 95 103 114 114 104 141 163 129 175 <b>1,368</b>	9 9 12 12 13 15 15 13 18 21 16 22 <b>175</b>
February 2-Month Total	12 <b>21</b>	(s) (s)	2,183 <b>3,795</b>	92 <b>159</b>	12 <b>20</b>	175 <b>408</b>	141 <b>276</b>	34 <b>132</b>	3,928 <b>3,928</b>	-243 <b>-581</b>	0 <b>0</b>	2,461 <b>4,508</b>	103 <b>189</b>	13 <b>24</b>
2013 2-Month Total 2012 2-Month Total	17 20	(s) (s)	3,189 3,638	134 153	17 19	82 120	75 383	7 -263	2,109 2,895	-60 883	0 0	3,256 2,492	137 105	17 13

<sup>&</sup>lt;sup>a</sup> Total vegetable oil and other biomass inputs to the production of biodiesel.

h Derived from the preliminary 2012 stocks value (2,169 thousand barrels), not the final 2012 value (2,083 thousand barrels) that is shown under "Stocks."

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

Notes: ● Mbbl = thousand barrels. MMgal = million U.S. gallons. TBtu = trillion Btu.

■ Biodiesel data in thousand barrels are converted to million gallons by multiplying by 0.042, and are converted to Btu by multiplying by 5.359 million Btu per barrel (the approximate heat content of biodiesel—see Table A3). ■ Through 2000, data are not available. Beginning in 2001, data not from U.S. Energy Information Administration (EIA) surveys are estimates. Beginning in 2014, biodiesel production data are estimated by EIA, and are only partially based on survey data. ■ Totals may not equal sum of components due to independent rounding. ■ Geographic coverage is the 50 states and the District of Columbia.

Web Page: See http://www.eia.gov/totalenergy/data/monthly/#renewable (Excel and CSV files) for all available annual and monthly data beginning in 2001.

<sup>&</sup>lt;sup>a</sup> Total vegetable oil and other biomass inputs to the production of biodiesel. b Losses and co-products from the production of biodiesel. Does not include natural gas, electricity, and other non-biomass energy used in the production of biodiesel—these are included in the industrial sector consumption statistics for the appropriate energy source.
<sup>c</sup> Net imports equal imports minus exports

appropriate energy source.

On Net imports equal imports minus exports.

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.

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

A negative value incloses a decrease in an increase.
 Beginning in 2009, because of incomplete data coverage and different data sources, "Balancing Item" is used to balance biodiesel supply and disposition.
 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."

#### **Renewable Energy**

#### Note. Renewable Energy Production and Consump-

tion. 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 fossilfuels heat rate—see Table A6); wood and wood-derived fuels consumption; biomass waste (municipal solid waste from biogenic sources, landfill gas, sludge waste, agricultural byproducts, and other biomass) consumption; fuel ethanol (minus denaturant) and biodiesel consumption; and losses and co-products from the production of fuel ethanol and biodiesel. In Tables 1.1, 1.2, and 10.1, renewable energy production is assumed to equal consumption for all renewable energy sources except biofuels (biofuels production comprises biomass inputs to the production of fuel ethanol and biodiesel).

#### **Table 10.2a Sources**

#### Residential Sector, Geothermal

1989 forward: Oregon Institute of Technology, Geo-Heat Center. Monthly estimates are created by dividing the annual estimates by the number of days in the year and then multiplying by the number of days in the month. (The annual estimates for 2012–2014 are set equal to that of 2011.)

#### Residential Sector, Solar/PV

1989–2009: U.S. Energy Information Administration (EIA) estimates based on Form EIA-63A, "Annual Solar Thermal Collector Manufacturers Survey," and Form EIA-63B, "Annual Photovoltaic Module/Cell Manufacturers Survey." Monthly estimates are created by dividing the annual estimates by the number of days in the year and then multiplying by the number of days in the month.

2010 forward: EIA estimates based on Form EIA-63B, "Annual Photovoltaic Cell/Module Shipments Report"; Form EIA-63A, "Annual Solar Thermal Collector Manufacturers Survey" (pre-2010 data); and SEIA/GTM Research, *U.S. Solar Market Insight: 2010 Year in Review.* Monthly estimates are created by dividing the annual estimates by the number of days in the year and then multiplying by the number of days in the month. (The annual estimate for 2014 is 15.0% higher than that of 2013, based on the growth rate for residential/commercial solar/PV in EIA's *Annual Energy Outlook*, Table 17.)

#### Residential Sector, Wood

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

1980 forward: EIA, Form EIA-457, "Residential Energy Consumption Survey"; and EIA estimates based on Form EIA-457 and regional heating degree-day data. Monthly estimates are created by dividing the annual estimates by the number of days in the year and then multiplying by the number of days in the month. (The annual estimate for 2014 is set equal to that of 2013.)

#### Commercial Sector, Hydroelectric Power

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

#### Commercial Sector, Geothermal

1989 forward: Oregon Institute of Technology, Geo-Heat Center. Monthly estimates are created by dividing the annual estimates by the number of days in the year and then multiplying by the number of days in the month. (The annual estimates for 2012–2014 are set equal to that of 2011.)

#### Commercial Sector, Solar/PV

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

#### Commercial Sector, Wind

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

#### Commercial Sector, Wood

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

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

1984: EIA estimate based on the 1983 value.

1985–1988: Values interpolated.

1989 forward: EIA, *Monthly Energy Review (MER)*, Tables 7.4a–7.4c; and EIA estimates based on Form EIA-871, "Commercial Buildings Energy Consumption Survey." Data for wood consumption at commercial combined-heat-and-power (CHP) plants are calculated as total wood consumption at electricity-only and CHP plants (MER, Table 7.4a) minus wood consumption in the electric power sector (MER, Table 7.4b) and at industrial CHP plants

(MER, Table 7.4c). Annual estimates for wood consumption at other commercial plants are based on Form EIA-871 (the annual estimate for 2014 is set equal to that of 2013); monthly estimates are created by dividing the annual estimates by the number of days in the year and then multiplying by the number of days in the month.

#### **Commercial Sector, Biomass Waste**

1989 forward: EIA, MER, Table 7.4c.

**Commercial Sector, Fuel Ethanol (Minus Denaturant)** 

1981 forward: EIA, MER, Tables 3.5, 3.7a, and 10.3. Calculated as commercial sector motor gasoline consumption (Table 3.7a) divided by total motor gasoline product supplied (Table 3.5), and then multiplied by fuel ethanol (minus denaturant) consumption (Table 10.3).

#### **Table 10.2b Sources**

#### **Industrial Sector, Hydroelectric Power**

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

#### **Industrial Sector, Geothermal**

1989 forward: Oregon Institute of Technology, Geo-Heat Center. Monthly estimates are created by dividing the annual estimates by the number of days in the year and then multiplying by the number of days in the month. (The annual estimates for 2012–2014 are set equal to that of 2011.)

#### Industrial Sector, Solar/PV

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

#### **Industrial Sector, Wind**

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

#### **Industrial Sector, Wood**

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

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

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

1985 and 1986: Values interpolated.

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

1988: Value interpolated.

1989 forward: EIA, *Monthly Energy Review (MER)*, Table 7.4c; and EIA estimates based on Form EIA-846, "Manufacturing Energy Consumption Survey." Data for wood consumption at industrial combined-heat-and-power (CHP) plants are from MER, Table 7.4c. Annual estimates for wood consumption at other industrial plants are based on Form EIA-846 (the annual estimate for 2014 is set equal to that of 2013); monthly estimates are created by dividing the annual estimates by the number of days in the year and then multiplying by the number of days in the month.

#### **Industrial Sector, Biomass Waste**

1981: EIA, *Estimates of U.S. Biofuels Consumption 1990*, Table 8; and EIA, MER, Table 10.2c. Estimates are calculated as total waste consumption minus electric power sector waste consumption.

1982 and 1983: EIA estimates for total waste consumption based on *Estimates of U.S. Biofuels Consumption 1990*, Table 8; and EIA, MER, Table 10.2c. Estimates are calculated as total waste consumption minus electric power sector waste consumption.

1984: EIA, *Estimates of U.S. Biofuels Consumption 1990*, Table 8; and EIA, MER, Table 10.2c. Estimates are calculated as total waste consumption minus electric power sector waste consumption.

1985 and 1986: Values interpolated.

1987: EIA, *Estimates of U.S. Biofuels Consumption 1990*, Table 8; and EIA, MER, Table 10.2c. Estimates are calculated as total waste consumption minus electric power sector waste consumption.

1988: Value interpolated.

1989 forward: EIA, MER, Table 7.4c; and EIA estimates based on information presented in Government Advisory Associates, *Resource Recovery Yearbook* and *Methane Recovery Yearbook*, and information provided by the U.S. Environmental Protection Agency, Landfill Methane Outreach Program. Data for waste consumption at industrial CHP plants are from MER, Table 7.4c. Annual estimates for waste consumption at other industrial plants are based on the non-EIA sources listed above (the annual estimate for 2014 is set equal to that of 2013); monthly estimates are created by dividing the annual estimates by the number of days in the year and then multiplying by the number of days in the month.

#### **Industrial Sector, Fuel Ethanol (Minus Denaturant)**

1981 forward: EIA, MER, Tables 3.5, 3.7b, and 10.3. Calculated as industrial sector motor gasoline consumption

(Table 3.7b) divided by total motor gasoline product supplied (Table 3.5), and then multiplied by fuel ethanol (minus denaturant) consumption (Table 10.3).

#### **Industrial Sector, Losses and Co-products**

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

### Transportation Sector, Fuel Ethanol (Minus Denaturant)

1981 forward: EIA, MER, Tables 3.5, 3.7c, and 10.3. Calculated as transportation sector motor gasoline consumption (Table 3.7c) divided by total motor gasoline product supplied (Table 3.5), and then multiplied by fuel ethanol (minus denaturant) consumption (Table 10.3).

#### **Transportation Sector, Biodiesel**

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

#### **Table 10.3 Sources**

#### **Feedstock**

1981 forward: Calculated as fuel ethanol production (in thousand barrels) minus denaturant, and then multiplied by the fuel ethanol feedstock factor—see Table A3.

#### **Losses and Co-products**

1981 forward: Calculated as fuel ethanol feedstock plus denaturant minus fuel ethanol production.

#### **Denaturant**

1981–2008: Data in thousand barrels for petroleum denaturant in fuel ethanol produced are estimated as 2 percent of fuel ethanol production; these data are converted to Btu by multiplying by 4.645 million Btu per barrel (the estimated quantity-weighted factor of pentanes plus and conventional motor gasoline used as denaturant).

2009–2012: 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.

2013 and 2014: EIA, *Petroleum Supply Monthly (PSM)*, monthly reports, Table 1. Data in thousand barrels for net

production of pentanes plus at renewable fuels and oxygenate plants are multiplied by -1; these data are converted to Btu by multiplying by 4.620 million Btu per barrel (the approximate heat content of pentanes plus). Data in thousand barrels for net production of conventional motor gasoline and motor gasoline blending components at renewable fuels and oxygenate plants are multiplied by -1; these data are converted to Btu by multiplying by 5.253 million Btu per barrel (the approximate heat content of conventional motor gasoline). Total denaturant is the sum of the values for pentanes plus, conventional motor gasoline, and motor gasoline blending components.

#### **Production**

1981–1992: Fuel ethanol production is assumed to equal fuel ethanol consumption—see sources for "Consumption."

1993–2004: Calculated as fuel ethanol consumption plus fuel ethanol stock change minus fuel ethanol net imports. These data differ slightly from the original production data from EIA, Form EIA-819, "Monthly Oxygenate Report," and predecessor form, which were not reconciled and updated to be consistent with the final balance.

2005–2008: EIA, Form EIA-819, "Monthly Oxygenate Report."

2009–2012: EIA, PSA, annual reports, Table 1, data for net production of fuel ethanol at renewable fuels and oxygenate plants.

2013 and 2014: EIA, PSM, monthly reports, Table 1, data for net production of fuel ethanol at renewable fuels and oxygenate plants.

#### Trade, Stocks, and Stock Change

1992–2012: EIA, PSA, annual reports, Table 1.

2013 and 2014: EIA, PSM, monthly reports, Table 1.

#### Consumption

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

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

1993–2004: EIA, PSA, annual reports, Tables 2 and 16. Calculated as 10 percent of oxygenated finished motor gasoline field production (Table 2), plus fuel ethanol refinery input (Table 16).

2005–2008: EIA, PSA, annual reports, Tables 1 and 15. Calculated as motor gasoline blending components adjustments (Table 1), plus finished motor gasoline adjustments (Table 1), plus fuel ethanol refinery and blender net inputs (Table 15).

2009–2012: EIA, PSA, annual reports, Table 1. Calculated as fuel ethanol refinery and blender net inputs minus fuel ethanol adjustments.

2013 and 2014: EIA, PSM, monthly reports, Table 1. Calculated as fuel ethanol refinery and blender net inputs minus fuel ethanol adjustments.

#### **Consumption Minus Denaturant**

1981 forward: Calculated as fuel ethanol consumption minus the amount of denaturant in fuel ethanol consumed. Denaturant in fuel ethanol consumed is estimated by multiplying denaturant in fuel ethanol produced by the fuel ethanol consumption-to-production ratio.

#### **Table 10.4 Sources**

#### **Feedstock**

2001 forward: Calculated as biodiesel production in thousand barrels multiplied by 5.433 million Btu per barrel (the biodiesel feedstock factor—see Table A3).

#### **Losses and Co-products**

2001 forward: Calculated as biodiesel feedstock minus biodiesel production.

#### **Production**

2001–2005: U.S. Department of Agriculture, Commodity Credit Corporation, Bioenergy Program records. Annual data are derived from quarterly data. Monthly data are estimated by dividing the annual data by the number of days in the year and then multiplying by the number of days in the month.

2006: U.S. Department of Commerce, Bureau of the Census, "M311K—Fats and Oils: Production, Consumption, and Stocks," data for soybean oil consumed in methyl esters (biodiesel). In addition, the U.S. Energy Information Administration (EIA) estimates that 14.4 million gallons of yellow grease were consumed in methyl esters (biodiesel).

2007: U.S. Department of Commerce, Bureau of the Census, "M311K—Fats and Oils: Production, Consumption, and Stocks," data for all fats and oils consumed in methyl esters (biodiesel).

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

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

2011 and 2012: EIA, *Petroleum Supply Annual (PSA)*, annual reports, Table 1, data for renewable fuels except fuel ethanol.

2013 and 2014: EIA, *Petroleum Supply Monthly (PSM)*, monthly reports, Table 1, data for renewable fuels except fuel ethanol.

#### Trade

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

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

2013 and 2014: EIA, PSM, monthly reports, Tables 37 and 49, data for biomass-based diesel fuel.

#### **Stocks and Stock Change**

2009–2012: EIA, PSA, annual reports, Table 1, data for renewable fuels except fuel ethanol.

2013 and 2014: EIA, PSM, monthly reports, Table 1, data for renewable fuels except fuel ethanol.

#### **Balancing Item**

2009 forward: Calculated as biodiesel consumption and biodiesel stock change minus biodiesel production and biodiesel net imports.

#### Consumption

2001–2008: Calculated as biodiesel production plus biodiesel net imports.

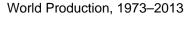
January and February 2009: EIA, PSA, Table 1, data for refinery and blender net inputs of renewable fuels except fuel ethanol.

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

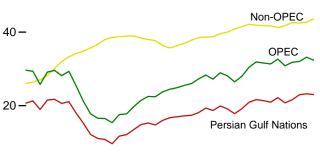
# 11. International Petroleum

Figure 11.1a World Crude Oil Production Overview

(Million Barrels per Day)







1995

2000 2005 2010

#### World Production, Monthly





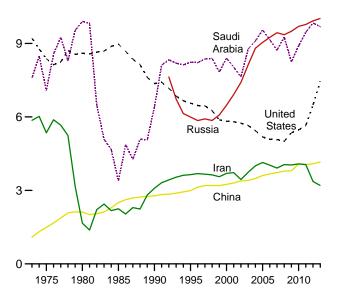




#### Selected Producers, 1973–2013

1975 1980 1985 1990

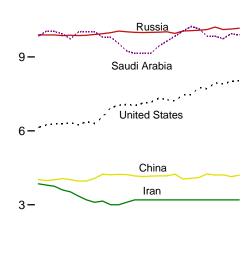
12-



#### Selected Producers, Monthly



60 <del>-</del>



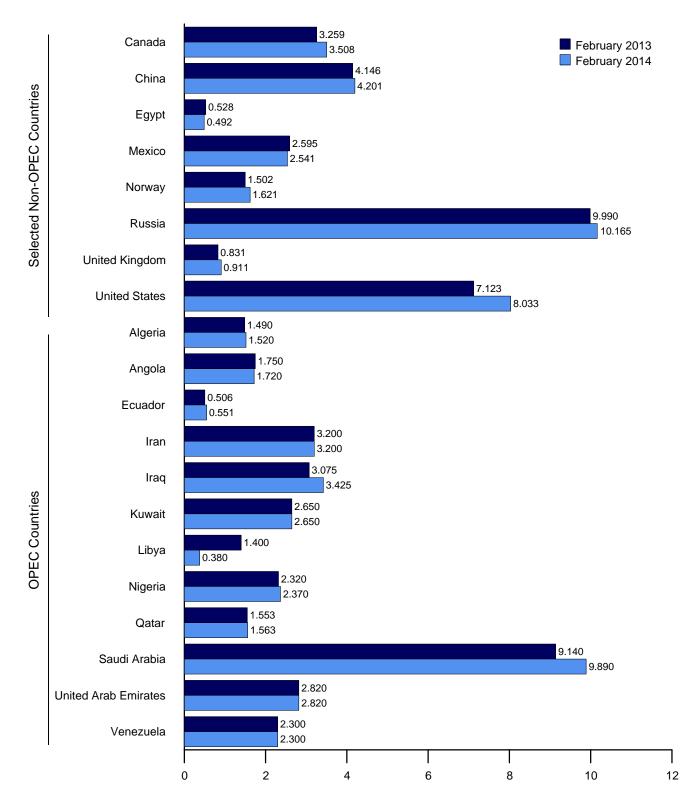


Notes: • OPEC is the Organization of the Petroleum Exporting Countries. • The Persian Gulf Nations are Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, and the United Arab Emirates. Production from the Neutral Zone between Kuwait and Saudi Arabia is included in "Per-

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	Vene- zuela	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	646 709	392	3,643	560 579	2,057	1,390	1,993	442 510	8,231	2,233 2,278	2,750	25,500
1996 Average	1,227 1,259	709 714	396 388	3,686 3,664	1,155	2,062 2,007	1,401 1,446	2,001 2,132	550	8,218 8,362	2,276	2,938 3,280	26,003 27,274
1997 Average1998 Average	1,239	735	375	3,634	2.150	2,007	1,390	2,152	696	8.389	2,345	3,260	28.346
1999 Average	1,177	745	373 373	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	742	8,404	2,368	3,155	28,944
2001 Average	1,265	742	412	3,724	2,390	1.998	1,367	2,256	730	8.031	2,205	3,010	28,129
2002 Average	1,349	896	393	3,444	2,023	1,894	1,319	2,118	709	7,634	2,082	2,604	26,465
2003 Average	1,516	903	411	3,743	1,308	2,136	1,421	2,275	807	8,775	2,348	2,335	27,977
2004 Average	1,582	1,052	528	4,001	2,011	2,376	1,515	2,329	901	9,101	2,478	2,557	30,432
2005 Average	1,692	1,239	532	4.139	1.878	2,529	1,633	2,627	978	9,550	2,535	2,565	31.897
2006 Average	1,699	1,398	536	4,028	1,996	2,535	1,681	2,440	996	9,152	2,636	2,511	31,607
2007 Average	1,708	1,724	511	3,912	2,086	2,464	1,702	2,350	1,083	8,722	2,603	2,490	31,354
2008 Average	1,705	1,946	505	4,050	2,375	2,586	1,736	2,165	1,198	9,261	2,681	2,464	32,672
2009 Average	1,585	1,867	486	4,037	2,391	2,350	1,650	2,208	1,279	8,250	2,413	2,319	30,834
2010 Average	1,540	1,899	486	4,080	2,399	2,300	1,650	2,455	1,459	8,900	2,415	2,216	31,799
2011 Average	1,540	1,746	500	4,054	2,626	2,530	465	2,550	1,571	9,458	2,679	2,300	32,019
2012 January	1,550	1,850	504	3,850	2,675	2,650	1,000	2,520	1,660	9,840	2,720	2,300	33,119
February	1,550	1,900	503	3,800	2,575	2,650	1,200	2,580	1,660	10,040	2,720	2,300	33,478
March	1,550	1,750	499	3,750	2,725	2,640	1,350	2,520	1,560	10,030	2,820	2,300	33,494
April	1,550	1,850	500	3,600	2,965	2,640	1,400	2,640	1,550	9,930	2,820	2,300	33,745
May	1,550	1,800	498	3,525	2,925	2,640	1,400	2,580	1,520	9,730	2,820	2,300	33,288
June	1,544	1,750	502	3,350	2,975	2,630	1,400	2,580	1,515	10,020	2,820	2,300	33,386
July	1,546 1,548	1,700 1,800	508 512	3,200 3,100	3,075 3,175	2,625 2,625	1,400 1,450	2,580 2,640	1,526 1,526	10,015 10,015	2,820 2,820	2,300 2,300	33,295 33,511
August September	1,550	1,700	506	3,150	3,175	2,623	1,500	2,460	1,526	9,800	2,820	2,300	33,197
October	1,330	1,750	503	3,000	3,275	2,610	1,500	2,460	1,526	9,800	2,820	2,300	32,706
November	1,483	1,730	504	3,000	3,225	2,650	1,450	2,340	1,526	9,540	2,820	2,300	32,508
December	1,485	1,750	503	3,100	3,125	2,650	1,350	2,520	1,526	9,240	2,820	2,300	32,369
Average	1,532	1,777	504	3,367	2,983	2,635	1,367	2,520	1,551	9,832	2,804	2,300	33,173
2013 January	1,490	1,800	505	3,200	3,075	2,650	1,350	2,410	1,553	9,140	2,820	2,300	32,293
February	1,490	1,750	506	3,200	3,075	2,650	1,400	2,320	1,553	9,140	2,820	2,300	32,204
March	1,490	1,850	504	3,200	3,075	2,650	1,350	2,420	1,553	9,140	2,820	2,300	32,352
April	1,510	1,815	516	3,200	3,175	2,650	1,450	2,400	1,553	9,440	2,820	2,300	32,829
May	1,510	1,850	522	3,200	3,075	2,650	1,420	2,420	1,553	9,640	2,820	2,300	32,960
June	1,510	1,830	524	3,200	3,100	2,650	1,130	2,270	1,553	9,840	2,820	2,300	32,727
July	1,520	1,750	530	3,200	3,100	2,650	1,000	2,400	1,553	10,040	2,820	2,300	32,863
August	1,520	1,730	537	3,200	3,275	2,650	590	2,370	1,553	10,240	2,820	2,300	32,785
September	1,412	1,770	535	3,200	2,825	2,650	360	2,420	1,553	10,140	2,820	2,300	31,985
October	1,412	1,760	540	3,200	2,975	2,650	550	2,370	1,553	9,840	2,820	2,300	31,970
November	1,420	1,780	545	3,200	2,975	2,650	220	2,270	1,553	9,840	2,820	2,300	31,573
Average	1,520 <b>1,484</b>	1,800 <b>1,791</b>	548 <b>526</b>	3,200 <b>3,200</b>	2,925 <b>3,054</b>	2,650 <b>2,650</b>	230 <b>918</b>	2,350 <b>2,369</b>	1,553 <b>1,553</b>	9,740 <b>9,685</b>	2,820 <b>2,820</b>	2,300 <b>2,300</b>	31,636 <b>32,350</b>
2014 January	1,470	1,650	550	3,200	3,125	2,650	510	2,340	1,563	9,940	2,820	2,300	32,118
February	1,520	1,720	551	3,200	3,425	2,650	380	2,370	1,563	9,890	2,820	2,300	32,389
2-Month Average	1,494	1,683	550	3,200	3,267	2,650	448	2,354	1,563	9,916	2,820	2,300	32,247
2013 2-Month Average 2012 2-Month Average	1,490 1,550	1,776 1,874	506 503	3,200 3,826	3,075 2,627	2,650 2,650	1,374 1,097	2,367 2,549	1,553 1,660	9,140 9,937	2,820 2,720	2,300 2,300	32,251 33,292

<sup>&</sup>lt;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 February 2014, 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. \_

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/#internation (Excel and CSV files) for all available annual and monthly data beginning in 1973. Sources: See end of section. See http://www.eia.gov/totalenergy/data/monthly/#international

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

(Thousand Barrels per Day)

					Selected	l Non-OPE	Ca Produce	rs				
	Persian Gulf Nations <sup>b</sup>	Canada	China	Egypt	Mexico	Norway	Former U.S.S.R.	Russia	United Kingdom	United States	Total Non- OPEC <sup>a</sup>	World
1973 Average	20.668	1,798	1,090	165	465	32	8,324	NA	2	9,208	26,018	55,679
1975 Average		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	,	1,471	2,505	887	2.745	773	11,585	NA	2,530	8,971	38,598	53,965
1990 Average		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		1,837	3,131	922	2,944	3,091		5,850	2,568	6,465	37,815	63,818
1997 Average		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		1,977	3,249	768	3,104	3,222		6,479	2,275	5,822	39,583	68,527
		2,029	3,300	720	3,218	3,226		6,917	2,282	5,801	40,003	68,132
2001 Average	17,824	2,023	3,390	715	3,263	3,131		7,408	2,292	5,744	40,825	
2002 Average		2,171	3,390	713	3,459	3,131		8,132	2,292	5,744	41,483	67,290 69,460
2003 Average		2,306	3,409 3,485	673	3,459 3,476	3,042 2,954		8,132 8,805	2,093 1,845	5,649 5,441	41,483	72,587
2004 Average				623								
2005 Average		2,369	3,609		3,423	2,698		9,043	1,649	5,181	41,873	73,771
2006 Average		2,525	3,673	535	3,345	2,491		9,247	1,490	5,088	41,792	73,398
2007 Average		2,628	3,729	530	3,143	2,270		9,437	1,498	5,077	41,730	73,084
2008 Average	22,186	2,579	3,790	566	2,839	2,182		9,357	1,391	5,000	41,263	73,935
2009 Average		2,579	3,796	587	2,646	2,067		9,495	1,328	5,353	41,775	72,609
2010 Average		2,741	4,078	568	2,621	1,869		9,694	1,233	5,471	42,579	74,378
2011 Average	22,953	2,901	4,059	551	2,600	1,752		9,774	1,026	5,652	42,470	74,489
2012 January		3,108	4,022	544	2,566	1,761		9,894	1,021	R 6,136	R 42,922	R 76,041
February		3,249	3,986	544	2,591	1,745		9,889	1,034	R 6,239	R 42,878	<sup>R</sup> 76,356
March	23,566	3,037	4,015	544	2,600	1,715		9,891	977	R 6,290	R 42,566	<sup>R</sup> 76,060
April	23,546	3,155	4,060	541	2,590	1,720		9,861	975	<sup>R</sup> 6,286	R 42,603	<sup>R</sup> 76,348
May	23,201	3,035	4,021	541	2,591	1,699		9,882	899	R 6,329	R 42,355	<sup>R</sup> 75,643
June	23,351	3,014	3,963	541	2,588	1,583		9,861	950	6,242	42,094	75,480
July	23,302	3,114	3,968	538	2,571	1,553		9,882	946	R 6,378	R 42,350	R 75,645
August	23,302	3,064	4,071	538	2,600	1,570		9,907	792	R 6,296	<sup>R</sup> 42,151	R 75,662
September		3,011	4,242	538	2,602	1,309		9,941	601	R 6,562	R 41,978	<sup>R</sup> 75,176
October		3,173	4,217	535	2,584	1,549		9,984	682	R 6,934	R 42,963	R 75,669
November	22,802	3,271	4,232	535	2,622	1,517		10,048	864	R 7,038	R 43,583	R 76,091
December		3,427	4,224	535	2,606	1.558		10,018	923	R 7,075	R 43,891	R 76,260
Average		3,138	4,085	539	2,593	1,607		9,922	888	R 6,484	42,695	75,868
2013 January	22,486	3.329	4.168	531	2.602	1.545		9.995	923	RE 7,024	R 43.400	R 75.693
February		3,259	4,146	528	2,595	1,502		9,990	831	RE 7,123	R 43,319	R 75,523
March		3,429	4.164	525	2,555	1,498		9,995	812	RE 7.163	R 43.309	R 75,661
April	,	3,237	4,174	522	2,557	1,567		10,002	830	RE 7,324	R 43,274	R 76,102
May		3,026	4,174	519	2,548	1,563		10,018	861	E 7,263	43,126	76,085
June	'	3,146	4,244	516	2,559	1,386		9,955	781	RE 7.217	R 43,277	R 76.004
July		3,306	4,043	513	2,522	1,648		10,052	792	RE 7,455	R 43,664	R 76,527
	- /	3,471	4,043	510	2,554	1,546		10,052	630	RE 7,455	R 43,454	R 76,239
August September		3,352	4,075	507	2,563	1,346		10,084	744	RE 7,755	R 43,734	R 75,719
		3,335	4,107	504	2,580	1,393		10,082	732	RE 7.712	R 44,015	R 75,985
October		3,468	4,255	504 501	2,553	1,477		R 10,109	833	RE 7,712	R 44.848	R 76,421
November December		3,524	4,205	498	2,553	1,611		R 10,209	955	RE 7,946	R 44,822	R 76,458
Average	,	3,324 3,324	4,215 <b>4,164</b>	514	2,562	1,530		R <b>10,110</b>	810	RE <b>7,447</b>	R <b>43,689</b>	R <b>76,436</b>
2014 January	23,346	R 3,477	<sup>R</sup> 4,141	495	2,545	1,633		R 10,131	<sup>R</sup> 831	RE 8.005	R 44,575	R 76,693
2014 January			4,201	495 492	2,545 2,541	1,633			911	E 8,005	44,910	77,299
February		3,508 <b>3,492</b>	4,201 <b>4,169</b>	492 <b>494</b>	2,541 <b>2,543</b>	1,621 <b>1,627</b>		10,165 <b>10,147</b>	869	E <b>8,033</b>	44,910 <b>44,734</b>	77,299 <b>76,981</b>
2-Month Average	23,403	3,432	4,109	434	2,343	1,027		10,147	009	0,010	44,134	•
2013 2-Month Average 2012 2-Month Average		3,296 3,176	4,158 4,004	530 544	2,599 2,578	1,525 1,753	==	9,993 9,892	879 1,027	E 7,071 6,186	43,361 42,901	75,612 76,193

<sup>&</sup>lt;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"

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 Dictrict of Columbia.

District of Columbia.

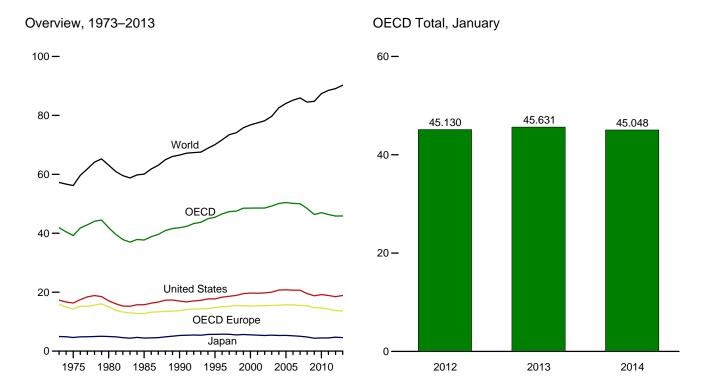
Web Page: See http://www.eia.gov/totalenergy/data/monthly/#international (Excel and CSV files) for all available annual and monthly data beginning in 1973. Sources: See end of section.

Indonesia leit OFEC at the end of 2000, and is that industrial and the for all years.

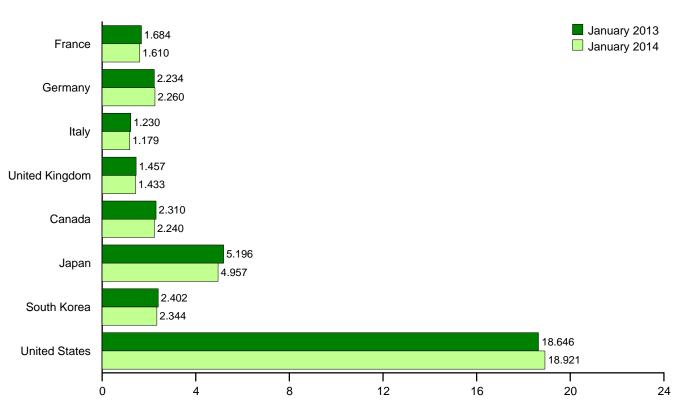
<sup>b</sup> Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, United Arab Emirates, and the Neutral Zone (between Kuwait and Saudi Arabia).

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

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



#### 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)

		Janoio poi			1							
	France	Germany <sup>a</sup>	Italy	United Kingdom	OECD Europe <sup>b</sup>	Canada	Japan	South Korea	United States	Other OECD <sup>c</sup>	<b>OECD</b> d	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	15,272	2,014	5,515	2,135	19,701	3,902	48,539	76,784
2001 Average	2,054	2,807	1,832	1,747	15,442	2,043	5,412	2,132	19,649	3,892	48,570	77,476
2002 Average	1,985	2,710	1,870	1,739	15,379	2,065	5,319	2,149	19,761	3,877	48,551	78,173
2003 Average	2,001	2,662	1,860	1,759	15,486	2,191	5,428	2,175	20,034	3,920	49,234	79,714
2004 Average	2,009	2,649	1,829	1,785	15,589	2,282	5,319	2,155	20,731	4,021	50,096	82,579
2005 Average	1,991	2,621	1,781	1,820	15,704	2,315	5,328	2,191	20,802	4,100	50,441	84,085
2006 Average	1,991	2,639	1,777	1,806	15,708	2,229	5,197	2,180	20,687	4,135	50,137	85,148
2007 Average	1,979	2,416	1,729	1,753	15,528	2,283	5,037	2,241	20,680	4,256	50,025	85,932
2008 Average	1,945	2,542	1,667	1,726	15,436	2,225	4,798	2,142	19,498	4,294	48,393	84,513
2009 Average	1,868	2,453	1,544	1,637	14,692	2,163	4,390	2,188	18,771	4,169	46,374	84,784
2010 Average	1,833	2,470	1,544	1,621	14,664	2,265	4,455	2,269	19,180	4,154	46,986	87,378
2011 Average	1,792	2,397	1,494	1,584	14,252	2,266	4,471	2,258	18,882	4,224	46,353	88,503
<b>2012</b> January	1,746	2,135	1,305	1,424	12,978	2,116	5,161	2,398	18,304	4,174	45,130	NA
February	1,951	2,567	1,351	1,548	14,459	2,190	5,547	2,444	18,643	4,352	47,635	NA
March	1,726	2,263	1,358	1,598	13,684	2,244	5,149	2,186	18,164	4,388	45,814	NA
April	1,688	2,291	1,337	1,584	13,616	2,171	4,378	2,132	18,211	4,197	44,704	NA
May	1,673	2,351	1,346	1,502	13,632	2,313	4,371	2,214	18,589	4,288	45,406	NA
June	1,782	2,521	1,411	1,510	14,141	2,170	4,114	2,337	18,857	4,311	45,930	NA
July	1,801	2,496	1,422	1,491	14,024	2,300	4,373	2,228	18,515	4,277	45,717	NA
August	1,665	2,333	1,370	1,460	13,686	2,429	4,631	2,267	19,156	4,380	46,549	NA
September	1,727	2,388	1,358	1,509	13,755	2,279	4,445	2,298	18,092	4,160	45,028	NA
October	1,809	2,573	1,399	1,406	14,185	2,314	4,424	2,232	18,705	4,415	46,274	NA
November	1,710	2,549	1,299	1,490	13,814	2,457	4,641	2,456	18,528	4,441	46,336	NA
December  Average	1,613 <b>1,740</b>	2,212 <b>2,388</b>	1,277 <b>1,353</b>	1,516 <b>1,503</b>	12,982 <b>13,742</b>	2,346 <b>2,278</b>	5,494 <b>4,726</b>	2,432 <b>2,301</b>	18,120 <b>18,490</b>	4,378 <b>4,314</b>	45,753 <b>45,851</b>	NA <b>89,094</b>
2012 January	1.604	2.224	1 220	1 457	10.007	2.240	E 106	2.402	10.646	4.100	45 624	NΙΔ
2013 January	1,684	2,234	1,230	1,457	12,887 <sup>R</sup> 13,453	2,310	5,196	2,402	18,646	4,189	45,631 R 46,363	NA
February	1,813 1,746	2,321 2,342	1,325 1,284	1,533 1,504	R 13,453	2,287 2,256	5,315	2,387 2,159	18,659	4,261	<sup>R</sup> 46,362 <sup>R</sup> 45,067	NA NA
March	1,746	2,5 <del>4</del> 2 2,581	1,204	1,504	R 14,011	R 2,270	4,760 4,319	2,159	18,476 18,553	4,144 4,293	R 45,714	NA NA
April May	1,737	2,457	1,302	R 1,488	R 13,702	R 2,347	4,116	2,256	18,551	4,293	R 45,185	NA
	1,737	2,491	1,272	R 1,591	R 13,736	R 2.311	3.892	2,301	18,724	4,250	R 45,214	NA
June July	1,710	2,453	1,410	R 1,495	R 14,156	2,269	4,390	2,301	19,046	4,203	R 46.309	NA
August	1,694	2,422	1,267	1,522	R 13,830	R 2,330	4,406	2,306	19,040	4,203	R 46,263	NA
September	1,715	2,445	1,322	R 1,547	R 13,876	R 2,337	4,145	2,306	19,091	4,003	R 45,693	NA
October	1,713	2,538	1,381	R 1,460	R 14,031	R 2.253	4,197	2,230	19,273	R 4,236	R 46,221	NA
November	1,767	2,420	1,260	R 1,545	R 13,575	R 2,321	4,197	2,436	19,413	R 4,159	R 46,740	NA
December	1,639	2,155	1,200	1,459	R 13,031	R 2.221	5,223	2,466	19,081	R 4,208	R 46,229	NA
Average	1,733	2,105 2,405	1,301	R 1,512	R <b>13,630</b>	R <b>2,292</b>	4,563	2,400 2,305	18,887	4,205	R <b>45,882</b>	90,228
2014 January	1,610	2,260	1,179	1,433	12,604	2,240	4,957	2,344	18,921	3,981	45,048	NA

<sup>&</sup>lt;sup>a</sup> Data are for unified Germany, i.e., the former East Germany and West

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 (Excel and CSV files) for all available annual and monthly data beginning in 1973. (Excel and CSV files) for all available annual and monthly 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, May 2014, Table 3a. • All Other Data:—International Energy Agency (IEA), Quarterly Oil Statistics and Energy Balances in OFCO Countries various issues Balances in OECD Countries, various issues.

b "DECD Europe" consists of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, and the United Kingdom; for 1984 forward, Czech Republic, Hungary, Poland, and Slovakia; and, for 2000 forward,

Slovenia.

C "Other OECD" consists of Australia, New Zealand, and the U.S. Territories; for

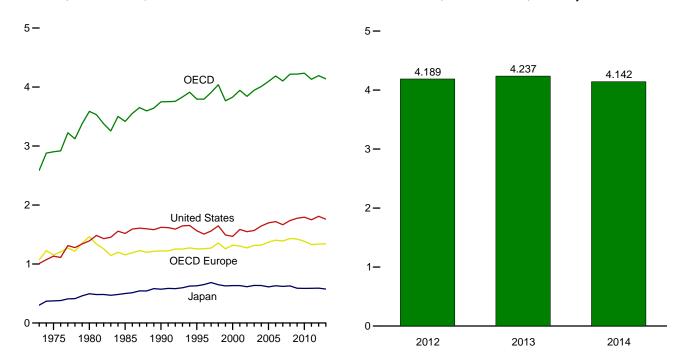
<sup>1984</sup> forward, Mexico; and, for 2000 forward, Chile, Estonia, and Israel.

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

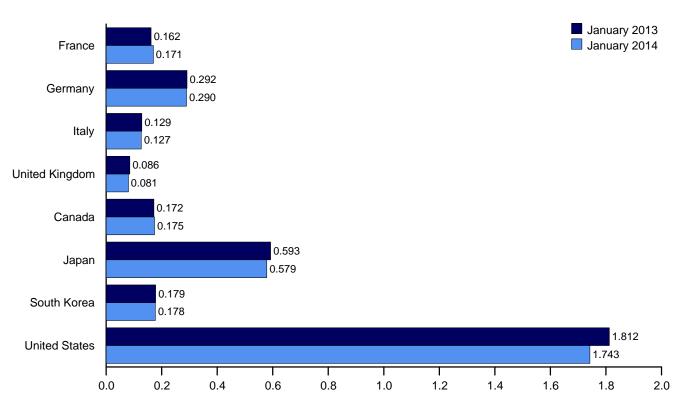
Figure 11.3 Petroleum Stocks in OECD Countries (Billion Barrels)

Overview, End of Year, 1973-2013

OECD Stocks, End of Month, January



By Selected OECD Country, End of Month



Note: OECD is the Organization for Economic Cooperation and Development. Web Page: http://www.eia.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>	<b>OECD</b> <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 NA	1,392	72	3,587
1985 Year	139	277	156	131	1,154	112	500	13	1,519	119	3,417
1990 Year	143	280	171	103	1,222	143	572	64	1,621	126	3,749
1995 Year	155	302	162	101	1,256	132	631	92	1,563	122	3,795
1996 Year	154	303	152	103	1,259	127	651	123	1,507	127	3,794
1997 Year	161	299	147	100	1,271	144	685	124	1,560	123	3,907
1998 Year	169	323	153	104	1,355	139	649	129	1,647	120	4,039
1999 Year	160	290	148	101	1,258	141	629	132	1,493	114	3,766
2000 Year	170	272	157	100	1,318	143	634	140	1,468	126	3,829
2001 Year	165	273	151	113	1,306	154	634	143	1,586	120	3,944
2002 Year	170	253	156	104	1,273	155	615	140	1,548	112	3,843
2003 Year	179	273	153	100	1,316	165	636	155	1,568	105	3,945
2004 Year	177	267	154	101	1,319	154	635	149	1,645	108	4,010
2005 Year	185	283	151	95	1,371	168	612	135	1,698	112	4,095
2006 Year	182	283	153	103	1,404	169	631	152	1,720	113	4,187
2007 Year	180	275	152	92	1,389	163	621	143	1,665	121	4,103
2008 Year	179	279	148	93	1,431	162	629	135	1,737	124	4,218
2009 Year	175	284	146	89	1,424	157	589	155	1,776	118	4,219
2010 Year	168	287	143	83	1,385	184	587	165	1,770	120	4,234
2011 Year	165	281	135	80	1,330	178	589	167	1,750	118	4,131
<b>2012</b> January	166	288	138	84	1.359	178	594	164	1.773	121	4,189
February	165	286	138	84	1,356	180	583	171	1,767	113	4,172
March	165	284	139	82	1,367	171	580	164	1,783	113	4,178
April	163	284	137	85	1,359	170	592	174	1,784	115	4,195
May	162	281	137	82	1,338	172	597	183	1,796	117	4,202
June	164	280	134	82	1,340	170	601	177	1,810	112	4,210
July	163	285	132	80	1,350	173	608	181	1,813	116	4,241
August	168	284	138	82	1,367	177	603	179	1.801	114	4.241
September	164	283	143	75	1,349	180	606	184	1,819	117	4,254
October	160	282	141	75	1,330	175	614	180	1,810	110	4,219
November	160	287	138	85	1,345	174	604	177	1,810	106	4,217
December	162	287	126	81	1,337	174	591	175	1,808	108	4,193
<b>2013</b> January	162	292	129	86	<sup>R</sup> 1,375	172	593	179	1,812	105	R 4,237
February	162	289	130	81	R 1,377	175	583	176	1,791	110	R 4,213
March	161	291	131	80	1,374	171	591	188	1,793	114	4,232
April	159	289	132	85	1,370	173	598	176	1,807	114	4,237
May	163	291	121	80	R 1.343	170	594	177	1,817	111	R 4,212
June	166	288	126	84	1,343	174	588	182	1,818	116	4,221
July	166	289	126	83	1,358	177	579	189	1,818	114	R 4,234
August	167	288	127	84	R 1.350	185	579	188	1,821	114	R 4,237
September	166	287	131	82	1,355	183	591	191	1,832	113	4,264
October	167	288	130	81	1,352	178	587	190	1,812	114	R 4,234
November	167	287	131	81	1,340	174	587	181	1,792	114	4,188
December	167	289	R <b>125</b>	R <b>83</b>	R <b>1,343</b>	170	<b>575</b>	178	1,760	112	R <b>4,138</b>
<b>2014</b> January	171	290	127	81	1,355	175	579	178	1.743	113	4.142

<sup>&</sup>lt;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.

b "OECD Europe" consists of Austria, Belgium, Denmark, Finland, France,

R=Revised. NA=Not available.

Notes: • Stocks are at end of period. • Petroleum stocks include crude oil

(including strategic reserves), unfinished oils, natural gas plant liquids, and refined products. • In the United States in January 1975, 1981, and 1983, numerous respondents were added to bulk terminal and pipeline surveys, thereby affecting subsequent stocks reported. New-basis end-of-year U.S. stocks, in million barrels, would have been 1,121 in 1974, 1,425 in 1980, and 1,461 in 1982. • Totals may not equal sum of components due to independent rounding. • U.S. geographic

coverage is the 50 states and the District of Columbia.

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

Sources: • United States: Table 3.4. • U.S. Territories: 1983 forward—U.S. Energy Information Administration, International Energy Database.

• All Other Data: 1973—1982—International Energy Agency (IEA), Quarterly Oil Statistics and Energy Balances, various issues. 1983—IEA, Monthly Oil and Gas Statistics Database. 1984 forward—IEA, Monthly Oil Data Service, May 15, 2014.

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>&</sup>lt;sup>c</sup> "Other OECD" consists of Australia, New Zealand, and the U.S. Territories; for

<sup>1984</sup> 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."

#### **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, May 2014.

#### All Other Countries and World, Monthly Data

1973-1980: Petroleum Intelligence Weekly (PIW), Oil &

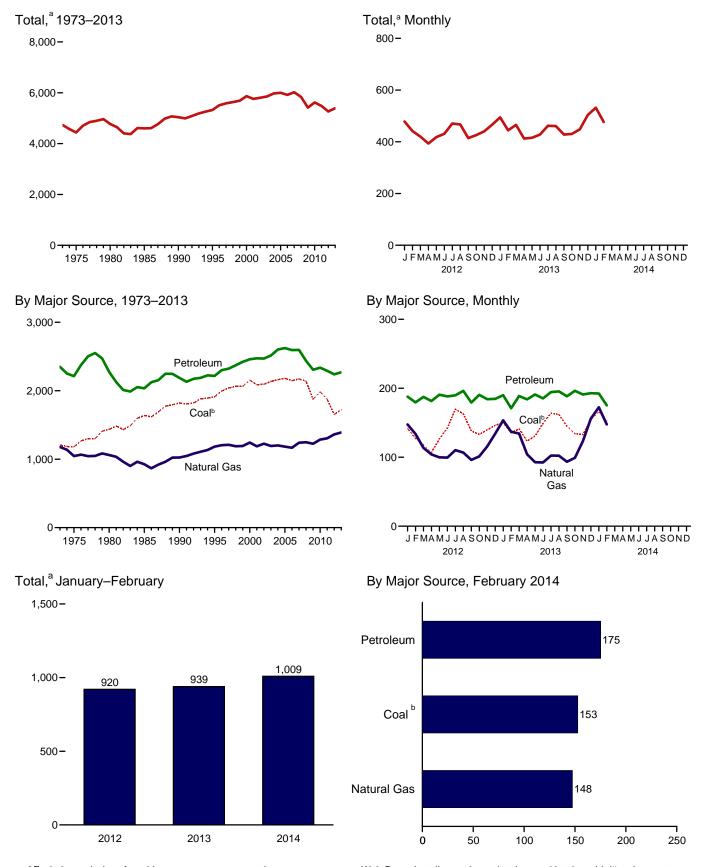
Gas Journal (OGJ), and EIA adjustments.

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

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

## 12. Environment

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



<sup>&</sup>lt;sup>a</sup> Excludes emissions from biomass energy consumption.

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

<sup>&</sup>lt;sup>b</sup> Includes coal coke net imports.

**Carbon Dioxide Emissions From Energy Consumption by Source** 

								Petrole	um					
	Coalb	Natural Gas <sup>c</sup>	Aviation Gasoline	Distillate Fuel Oild	Jet Fuel	Kero- sene	LPGe	Lubri- cants	Motor Gasoline <sup>f</sup>	Petroleum Coke	Residual Fuel Oil	Other <sup>g</sup>	Total	Total <sup>h,i</sup>
1973 Total 1975 Total 1985 Total 1985 Total 1990 Total 1990 Total 1995 Total 1996 Total 1997 Total 1998 Total 1998 Total 1998 Total 2000 Total 2001 Total 2002 Total 2003 Total 2004 Total 2005 Total 2006 Total 2007 Total 2008 Total 2008 Total 2008 Total 2008 Total 2009 Total 2009 Total 2009 Total 2009 Total 2001 Total 2001 Total 2001 Total 2001 Total 2011 Total	1,207 1,181 1,436 1,638 1,821 1,913 1,995 2,040 2,062 2,155 2,085 2,136 2,136 2,140 2,147 2,177 2,172 2,140 1,876	1,178 1,046 1,061 926 1,024 1,183 1,204 1,193 1,243 1,183 1,277 1,193 1,183 1,183 1,168 1,241 1,248 1,245 1,246 1,246 1,286 1,305	65433333233222222222222	480 443 446 445 470 498 525 534 538 555 580 598 587 610 632 640 648 652 615 564 590 604	155 146 156 178 223 222 234 235 245 254 243 240 246 240 238 226 201 209	32 24 24 177 6 8 9 10 11 11 10 8 8 10 10 15 2 3 3 3	92 82 87 67 80 86 87 82 90 97 88 89 87 87 87 87 87 87 87 87 87 87 87	13 11 13 12 13 13 13 14 14 14 11 12 11 12 11 11 10	911 910 930 988 1,044 1,063 1,075 1,107 1,127 1,135 1,183 1,188 1,214 1,214 1,224 1,227 R 1,165 R 1,145 R 1,156	54 51 49 54 70 76 80 93 96 86 96 96 107 106 100 93 87	508 443 453 216 220 152 152 142 158 148 163 144 125 138 155 122 128 110 90 93 79	100 97 142 93 127 121 139 145 123 133 118 135 130 142 144 143 152 150 132 112 122	2,350 2,212 2,275 2,036 2,3187 2,320 2,323 2,372 2,452 2,459 2,459 2,459 2,459 2,459 2,596 8,2,336 R 2,336 R 2,336	4,735 4,439 4,771 5,039 5,323 5,584 5,688 5,868 5,761 5,894 5,855 5,975 5,919 6,021 R 5,835 R 5,619 R 5,483
Policy January	142 127 118 107 127 142 170 163 138 133 140 146 <b>1,653</b>	148 134 114 100 100 110 110 107 96 101 116 134 <b>1,362</b>	(S) (S) (S) (S) (S) (S) (S) (S) (S) (S)	51 48 49 47 49 47 47 49 47 51 49 46 <b>580</b>	16 16 17 16 18 19 18 17 17 17 17	(s) (s) (s) (s) (s) (s) (s) (s) (s) (s)	8 7 7 6 6 6 6 6 6 7 7 8 81	1 1 1 1 1 1 1 1 1 1 1	R 88 87 93 91 97 94 95 99 90 94 89 91 R <b>1,106</b>	7 5 6 7 7 6 8 7 7 <b>7</b>	756655765553 <b>65</b>	9 10 9 8 8 10 10 7 11 11 11 12 <b>113</b>	188 180 188 R 181 191 188 190 196 179 R 190 184 185	R 478 442 420 393 418 431 471 467 R 414 426 440 466 R 5,267
Petron January	150 135 141 123 131 149 164 162 145 134 133 154	154 137 134 104 93 92 102 102 94 123 156 1,391	(s) (s) (s) (s) (s) (s) (s) (s) (s) (s)	53 47 49 49 46 46 48 47 53 49 51 <b>588</b>	16 15 17 17 18 17 19 19 17 18 17 18	(s) (s) (s) (s) (s) (s) (s) (s) (s) (s)	9 8 8 7 6 6 6 6 6 8 8 9	1 1 1 1 1 1 1 1 1 1 1	89 82 93 91 97 93 98 98 93 95 91 93 R 1,114	7 5 6 5 7 7 8 7 6 8 6	5 4 6 4 3 4 5 6 5 5 5 5 3 <b>56</b>	9 8 10 11 10 12 9 12 11 13 12 <b>126</b>	190 171 189 184 191 185 R 194 R 195 188 196 191 193 R 2,269	495 444 R 465 R 412 416 428 462 461 428 431 448 504 R 5,393
2014 January February 2-Month Total	166 153 <b>319</b>	R 172 148 <b>320</b>	(s) (s) <b>(s)</b>	56 49 <b>105</b>	17 15 <b>33</b>	(s) (s) <b>(s)</b>	10 7 <b>17</b>	1 1 <b>1</b>	88 85 <b>173</b>	8 5 <b>13</b>	4 3 <b>7</b>	9 10 <b>19</b>	192 175 <b>368</b>	532 477 <b>1,009</b>
2013 2-Month Total 2012 2-Month Total	285 269	291 281	(s) (s)	100 99	31 32	(s) (s)	17 15	2 2	171 175	11 13	9 12	19 19	361 367	939 920

R=Revised. (s)=Less than 0.5 million metric tons.

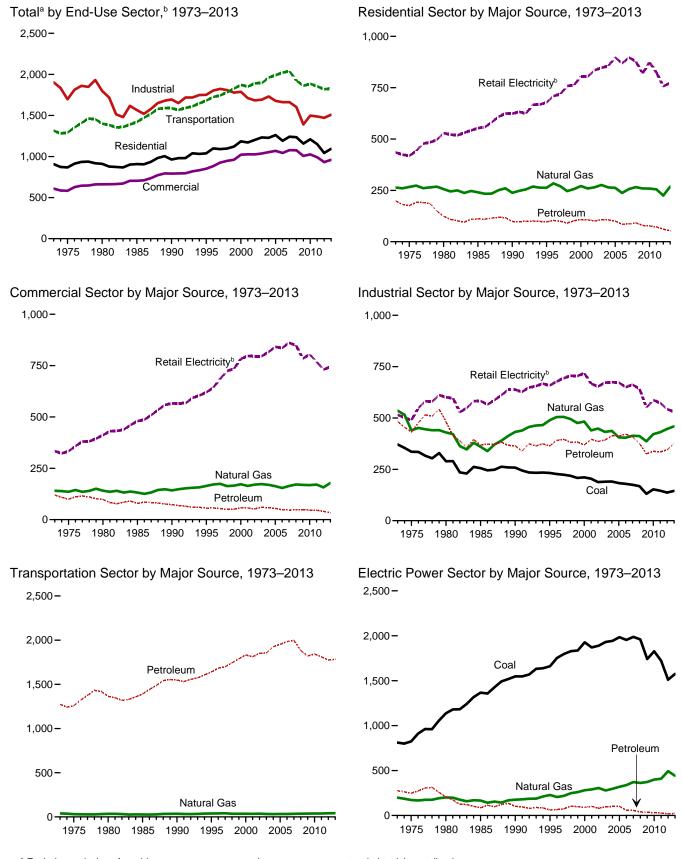
Notes: • Data are estimates for carbon dioxide emissions from energy consumption, including the nonfuel use of fossil fuels. See "Section 12 Methodology and Sources" at end of section. • See "Carbon Dioxide" in Glossary.

See Note 1, "Emissions of Carbon Dioxide and Other Greenhouse Gases," at end of section. • Data exclude emissions from biomass energy consumption. See Table 12.7 and Note 2, "Accounting for Carbon Dioxide Emissions From Biomass Energy Combustion," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia.

Web Page: See http://www.eia.gov/totalenergy/data/monthly/#environment (Excel and CSV files) for all available annual and monthly data beginning in 1973. Sources: See end of section.

<sup>a Metric tons of carbon dioxide can be converted to metric tons of carbon equivalent by multiplying by 12/44.
b Includes coal coke net imports.
c Natural gas, excluding supplemental gaseous fuels.
d Distillate fuel oil, excluding biodiesel.
e Liquefied petroleum gases.
f Finished motor gasoline, excluding fuel ethanol.
9 Aviation gasoline blending components, crude oil, motor gasoline blending components, pentanes plus, petrochemical feedstocks, special naphthas, still gas, unfinished oils, waxes, and miscellaneous petroleum products.
h Includes electric power sector use of geothermal energy and non-biomass waste. See Table 12.6.
i Excludes emissions from biomass energy consumption. See Table 12.7.</sup> 

Figure 12.2 Carbon Dioxide Emissions From Energy Consumption by Sector (Million Metric Tons of Carbon Dioxide)



<sup>&</sup>lt;sup>a</sup> Excludes emissions from biomass energy consumption.

total electricity retail sales.

Web Page: http://www.eia.gov/totalenergy/data/monthly/#environment. Sources: Tables 12.2–12.6.

<sup>&</sup>lt;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

Table 12.2 Carbon Dioxide Emissions From Energy Consumption: Residential Sector

				Petrole	eum			
	Coal	Natural Gas <sup>b</sup>	Distillate Fuel Oil <sup>c</sup>	Kerosene	<b>LPG</b> d	Total	Retail Electricity <sup>e</sup>	Total <sup>f</sup>
1973 Total	9	264	147	16	36	199	435	907
1975 Total	6	266	132	12	32	176	419	867
1980 Total	3	256	96		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	ž	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	ī	247	56	8	27	91	759	1.097
1999 Total	1	257	61	8	33	102	762	1,122
2000 Total	1	271	66	7	35	108	805	1.185
2001 Total	1	259	66	7	33	106	805	1,172
2002 Total	1	265	63	4	34	101	835	1,203
2003 Total	1	276	68	5	34	108	847	1,232
2004 Total	1	264	68	6	32	106	856	1,228
2005 Total	1	262	62	6	32	101	897	1,261
2006 Total	1	237	52	5	28	85	869	1,192
2007 Total	1	257	53	3	31	87	897	1,241
2008 Total	NA	266	55	2	35	92	878	1,235
2009 Total	NA	259	43	2	35	79	819	1,157
2010 Total	NA	259	41	2	33	77	875	1,210
2011 Total	NA	255	39	1	32	72	824	1,150
2012 January	NA	43	5	(s)	2	7	68	118
February	NA	36	4	(s)	2	6	57	100
March	NA	22	3	(s)	2	6	50	78
April	NA	15	2	(s)	2 2	4	44	64
May	NA	9	2	(s)	2	5	55	68
June	NA	7	2	(s)	2	4	69	80
July	NA	6	2	(s)	2	4	92	102
August	NA	6	3	(s)	2	5	85	95
September	NA	6	2	(s)	2 2	4	65	75
October	NA	13	2	(s)	2	4	53	71
November	NA	26	3	(s)	2	5	56	88
December	NA	36	3	(s)	2	6	65	107
Total	NA	225	36	1	25	61	757	1,044
2013 January	NA	48	4	(s)	3	7	72	127
February	NA	41	4	(s)	2	6	61	108
March	NA	36	3	(s)	2	6	62	104
April	NA	20	2	(s)	2	5	50	75
May	NA	1 <u>1</u>	2	(s)	2	4	51	65
June	NA	7	] 1	(s)	2	3	67	77
July	NA	6	] !	(s)	2	3	83	92
August	NA	6	1	(s)	2 2 2	4	79	89
September	NA	6	2	(s)	2	4	67	77
October	NA	12	1 2	(s)	2	4 4	54	69
November	NA	28		(s)			54	87
December Total	NA <b>NA</b>	47 <b>268</b>	2 <b>25</b>	(s) <b>1</b>	3 <b>27</b>	5 <b>53</b>	74 <b>773</b>	125 <b>1,094</b>
<b>2014</b> January	NA	57	3	(s)	3	5	84	R 146
February	NA NA	47	3	(s)	2	5	73	125
2-Month Total	NA NA	103	5	(s)	5	11	158	271
2013 2-Month Total	NA	89	8	(s)	5	13	133	235
2012 2-Month Total	NA	79	9	(s)	5	14	125	218

Notes: • Data are estimates for carbon dioxide emissions from energy consumption. See "Section 12 Methodology and Sources" at end of section.
• See "Carbon Dioxide" in Glossary. • See Note 1, "Emissions of Carbon Dioxide and Other Greenhouse Gases," at end of section. • Data exclude emissions from biomass energy consumption. See Table 12.7 and Note 2, "Accounting for Carbon Dioxide Emissions From Biomass Energy Combustion," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia.

Web Page: See http://www.eia.gov/totalenergy/data/monthly/#environment (Excel and CSV files) for all available annual and monthly data beginning in 1973. Sources: See end of section.

Sources: See end of section.

<sup>a Metric tons of carbon dioxide can be converted to metric tons of carbon equivalent by multiplying by 12/44.
b Natural gas, excluding supplemental gaseous fuels.
c Distillate fuel oil, excluding biodiesel.
d Liquefied petroleum gases.
E missions 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.
Excludes emissions from biomass energy consumption. See Table 12.7.
R=Revised. NA=Not available. (s)=Less than 0.5 million metric tons.</sup> 

Table 12.3 Carbon Dioxide Emissions From Energy Consumption: Commercial Sector

						Petroleum					
	Coal	Natural Gas <sup>b</sup>	Distillate Fuel Oil <sup>c</sup>	Kerosene	LPG <sup>d</sup>	Motor Gasoline <sup>e</sup>	Petroleum Coke	Residual Fuel Oil	Total	Retail Electricity <sup>f</sup>	Total <sup>g</sup>
1973 Total 1975 Total 1975 Total 1980 Total 1985 Total 1990 Total 1995 Total 1995 Total 1997 Total 1998 Total 1998 Total 1999 Total 2000 Total 2001 Total 2002 Total 2003 Total 2004 Total 2005 Total 2006 Total 2007 Total 2008 Total 2008 Total 2009 Total 2009 Total 2010 Total 2011 Total	15 14 11 12 11 12 19 10 9 9 9 8 10 9 7 7	141 136 141 132 142 164 171 174 165 173 164 170 163 154 164 171 169 168	47 43 38 46 39 35 35 32 31 32 36 37 32 36 37 32 29 28 28 29 29	5 4 3 2 1 2 2 2 2 2 2 2 1 1 1 2 1 5 (s) (s) (s) (s) (s) (s) (s) (s) (s) (s)	986666788879999110888810999	66 87 8 1 2 3 3 2 3 3 3 4 3 3 3 4 3 3 4 3 3 4 4 3 4 4 3 4 4 4 3 4 4 4 4 4 4 3 4	NA NA O (S)	52 39 44 18 11 11 9 7 6 6 6 9 10 9 6 6 6 6 6 5 4	120 100 98 79 73 56 57 54 51 51 58 57 52 61 58 47 47 47 47	334 333 412 480 566 620 643 686 724 735 783 797 795 796 816 842 836 861 850 785 805 769	609 583 662 704 793 851 883 926 947 960 1,022 1,027 1,026 1,037 1,054 1,069 1,043 1,078 1,076 1,008
Petragrammer Septragrammer Sep	1 (S) (S) (S) (S) (S) (S) (S) (S) (S) (S)	24 21 14 11 8 7 7 7 8 12 17 21	4 3 3 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	(s) (s) (s) (s) (s) (s) (s) (s) (s) (s)	1 1 1 1 1 1 1 1 1 1 1 1	(S) (S) (S) (S) (S) (S) (S) (S) (S) (S)	(s) (s) (s) (s) (s) (s) (s) (s) (s) (s)	(S) (S) (S) (S) (S) (S) (S) (S) (S) (S)	5 4 4 3 3 3 3 3 3 3 3 4 4	57 53 52 51 60 66 76 73 63 61 59 59	87 79 70 65 72 76 86 84 74 76 79 84
2013 January	(S) (S) (S) (S) (S) (S) (S) (S) (S) (S)	26 23 21 13 9 7 7 8 11 19 26	3 3 2 2 1 1 1 1 1 1 1 1 2	(S) (S) (S) (S) (S) (S) (S) (S) (S) (S)	1 1 1 1 1 1 1 1 1 1 1 1	(s) (s) (s) (s) (s) (s) (s) (s) (s) (s)	(s) (s) (s) (s) (s) (s) (s) (s) (s) (s)	(S) (S) (S) (S) (S) (S) (S) (S) (S) (S)	4 4 4 3 2 2 2 2 2 2 2 2 3 3 3 3 3 3 3 3	59 54 58 53 59 67 74 73 65 61 58 63	90 82 83 70 70 76 83 83 76 75 79 92 <b>959</b>
2014 January	1 1 1 1	31 27 <b>58</b> <b>49</b> <b>45</b>	2 2 4 6 7	(s) (s) (s) (s)	1 1 2 2 2	(s) (s) (s) (s)	(s) (s) (s) (s)	(s) (s) <b>(s)</b> 1	3 3 6 8 9	66 59 <b>125</b> 114 110	101 89 <b>190</b> 172 166

Notes: • Data are estimates for carbon dioxide emissions from energy consumption. See "Section 12 Methodology and Sources" at end of section.
• See "Carbon Dioxide" in Glossary. • See Note 1, "Emissions of Carbon Dioxide and Other Greenhouse Gases," at end of section. • Data exclude emissions from biomass energy consumption. See Table 12.7 and Note 2, "Accounting for Carbon Dioxide Emissions From Biomass Energy Combustion," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia.

Web Page: See http://www.eia.gov/totalenergy/data/monthly/#environment (Excel and CSV files) for all available annual and monthly data beginning in 1973. Sources: See end of section.

<sup>a Metric tons of carbon dioxide can be converted to metric tons of carbon equivalent by multiplying by 12/44.

b Natural gas, excluding supplemental gaseous fuels.

c Distillate fuel oil, excluding biodiesel.

d Liquefied petroleum gases.

e Finished motor gasoline, excluding fuel ethanol.

f Emissions from energy consumption (for electricity and a small amount of useful thermal output) in the electric power sector are allocated to the end-use sectors in proportion to each sector's share of total electricity retail sales. See Tables 7.6 and 12.6.</sup> 

Tables 7.6 and 12.6.

g Excludes emissions from biomass energy consumption. See Table 12.7. NA=Not available. (s)=Less than 0.5 million metric tons.

Table 12.4 Carbon Dioxide Emissions From Energy Consumption: Industrial Sector

		Coal						Petroleun	n					
	Coal	Coke Net Imports	Natural Gas <sup>b</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	Retail Elec- tricity <sup>g</sup>	Total <sup>h</sup>
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	227 224	3 5	505 505	87 88	1	48 50	6 7	14 15	71 70	24 21	139 145	391 396	678 694	1,803 1.824
1997 Total 1998 Total	219	8	495	88	1 2	47	7	14	70 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	i	52	7	11	76	17	118	369	719	1,788
2001 Total	204	3	440	95	2	45	6	21	79	14	135	396	667	1,711
2002 Total	188	7	448	88	1	47	6	22	79	13	130	386	654	1.683
2003 Total	190	6	432	85	2	41	6	23	78	16	142	393	672	1,692
2004 Total	191	16	437	88	2	44	6	26	84	18	144	413	675	1,731
2005 Total	183	5	405	92	3	42	6	25	81	20	143	412	673	1,678
2006 Total	179	7	404	92	2	43	6	26	84	16	152	421	650	1,662
2007 Total	175	3	414	92	, 1	43	6	21	82	13	150	408	662	1,662
2008 Total	168	5	412	99	(s)	32	6 5	17	77	13	132	376	642	1,602
2009 Total	131 153	-3 -1	386 421	78 85	(s)	33 35	5 6	16 18	72 67	8 6	112 122	325 338	551 587	1,390 1,498
2011 Total	146	1	431	91	(s)	34	5	R 17	63	6	117	335	574	1,487
2012 January	12	(s)	41	9	(s)	5	(s)	1	6	(s)	9	32	43	127
February	12	(s)	38	10	(s)	4	(s)	1	4	(s)	10	30	42	121
March	12	(s)	38	8	(s)	4	(s)	1	5	(s)	9	29	41	120
April	11	. 1	36	8	(s)	3	(s)	1	6	(s)	8	26	41	115
May	11	(s)	36 35	8 7	(s)	3	(s)	1	6 6	(s)	8 10	28 27	46 47	121
June July	11 11	(s) (s)	36	5	(s) (s)	3	(s) (s)	1	6	(s) (s)	10	27 25	52	120 124
August	11	(s)	36	6	(s)	3	(s)	1	7	(s)	10	28	50	126
September	11	(s)	36	7	(s)	3	(s)	i	6	(s)	7	26	45	117
October	11	(s)	37	9	(s)	4	(s)	i	5	(s)	11	31	46	125
November	12	(s)	38	9	(s)	4	(s)	1	6	(s)	11	32	46	127
December	12	(s)	40	7	(s)	5	(s)	1	6	(s)	12	31	45	128
Total	137	(s)	446	94	(s)	45	5	16	69	`3	113	345	543	1,471
2013 January	12	(s)	41	12	(s)	6	(s)	1	6	(s)	9	35	43	131
February	12	(s)	38 40	10	(s)	5 4	(s)	1	4 5	(s)	8	29 29	40 44	119 124
March April	12 12	(s) (s)	40 37	9 9	(s) (s)	4	(s) (s)	1	5 4	(s) (s)	10	29 29	44	118
May	12	(s)	37	9	(s)	3	(s)	1	5	(s)	11	30	44	124
June	12	(s)	35	8	(s)	3	(s)	i	6	(s)	10	29	46	122
July	12	(s)	37	l ž	(s)	3	(s)	i	5	(s)	12	29	48	126
August	12	(s)	37	8	(s)	3	(s)	1	6	(s)	9	28	49	126
September	12	(s)	36	8	(s)	3	(s)	1	6	(s)	12	32	44	123
October	13	(s)	38	12	(s)	4	(s)	1	5	(s)	11	34	44	129
November	12	(s)	40	10	(s)	4	(s)	1	7	(s)	13	37	43	132
December	.12	(s)	43	11	(s)	5	(s)_	.1	4	(s)	.12	34	44	134
Total	145	-2	460	113	(s)	48	5	17	63	3	126	376	531	1,509
2014 January	12	(s)	44	15	(s)	6	(s)	1	7	(s)	9	37	45	138
February 2-Month Total	12 <b>24</b>	1 <b>1</b>	40 <b>84</b>	12 <b>27</b>	(s) <b>(s)</b>	4 <b>10</b>	(s) <b>1</b>	1 <b>3</b>	4 <b>11</b>	(s) <b>(s)</b>	10 <b>19</b>	32 <b>69</b>	41 <b>86</b>	125 <b>264</b>
							•			` '				
2013 2-Month Total 2012 2-Month Total	24 23	(s) (s)	79 79	22 19	(s) (s)	10 9	1 1	3 3	9 10	(s) 1	19 19	64 62	83 84	251 248

<sup>a Metric tons of carbon dioxide can be converted to metric tons of carbon equivalent by multiplying by 12/44.
b Natural gas, excluding supplemental gaseous fuels.
c Distillate fuel oil, excluding biodiesel.
d Liquefied petroleum gases.
e Finished motor gasoline, excluding fuel ethanol.
f Aviation gasoline blending components, crude oil, motor gasoline blending components pentages plus petrochemical feedstocks special paphthas still gas</sup> 

R=Revised. (s)=Less than 0.5 million metric tons and greater than -0.5 million

metric tons.
Notes: Notes: • Data are estimates for carbon dioxide emissions from energy consumption, including the nonfuel use of fossil fuels. See "Section 12 Methodology and Sources" at end of section. • See "Carbon Dioxide" in Glossary. • See Note 1, "Emissions of Carbon Dioxide and Other Greenhouse Gases," at end of section. • Data exclude emissions from biomass energy consumption. See Table 12.7 and Note 2, "Accounting for Carbon Dioxide Emissions From Biomass Energy Combustion," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia.

Web Page: See http://www.eia.gov/totalenergy/data/monthly/#environment (Excel and CSV files) for all available annual and monthly data beginning in 1973. Sources: See end of section.

components, pentanes plus, petrochemical feedstocks, special naphthas, still gas, unfinished oils, waxes, and miscellaneous petroleum products.

<sup>9</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.

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

Table 12.5 Carbon Dioxide Emissions From Energy Consumption: Transportation Sector (Million Metric Tons of Carbon Dioxidea)

					D. (a)							
	Coal	Natural Gas <sup>b</sup>	Aviation Gasoline	Distillate Fuel Oil <sup>c</sup>	Jet Fuel	LPG <sup>d</sup>	Lubri- cants	Motor Gasoline <sup>e</sup>	Residual Fuel Oil	Total	Retail Elec- tricity <sup>f</sup>	Total <sup>g</sup>
1973 Total 1975 Total 1980 Total 1985 Total 1995 Total 1995 Total 1996 Total 1997 Total 1998 Total 1998 Total 1998 Total 1998 Total 2000 Total 2001 Total 2002 Total 2003 Total 2004 Total 2005 Total 2006 Total 2007 Total 2007 Total 2008 Total 2007 Total 2008 Total 2008 Total 2009 Total 2009 Total	(s) (h) (h) (h) (h) (h) (h) (h) (h) (h) (h	39 32 34 28 36 38 39 41 35 36 35 37 33 32 33 33 35 37 38 38	65 4 4 3 3 3 3 3 3 2 2 2 2 2 2 2 2 2 2 2 2	163 155 204 232 268 307 327 342 352 366 378 387 409 434 444 469 472 427 408 429 441	152 145 155 178 223 222 234 238 245 254 243 237 231 240 246 240 238 226 204 210	3 3 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	666677766666555555	886 889 881 908 967 1,029 1,047 1,057 1,195 1,115 1,127 1,158 1,161 1,185 1,186 1,194 1,201 R 1,145 R 1,136 R 1,136 R 1,123 R 1,092	57 56 110 62 80 72 67 53 52 70 46 53 45 58 66 71 78 73 62 70 61	1,273 1,258 1,363 1,391 1,548 1,639 1,683 1,683 1,743 1,783 1,813 1,851 1,956 1,953 1,998 1,999 R 1,881 R 1,881 R 1,881 R 1,842 R 1,842	22233333334445555555554	1,315 1,292 1,400 1,421 1,588 1,681 1,725 1,744 1,782 1,828 1,872 1,852 1,892 1,893 1,962 1,991 2,022 2,040 R 1,922 R 1,862 R 1,885 R 1,855
Polyal January February March April May June July August September October November December Total	( h h ) ) ( h h h h h h h h h h h h h h	4 4 3 3 3 3 3 3 3 3 3 4 4	(s) (s) (s) (s) (s) (s) (s) (s) (s) (s)	32 31 34 35 37 36 37 38 35 37 35 34 420	16 16 17 16 18 19 18 18 17 17 17	(s) (s) (s) (s) (s) (s) (s) (s) (s) (s)	(s) (s) (s) (s) (s) (s) (s) (s) (s) (s)	87 85 91 90 95 92 94 97 88 92 87 89 81,087	5 5 5 5 4 4 6 5 5 4 4 4 2 <b>5</b> 5	142 137 148 147 154 152 155 158 145 151 143 143 R 1,774	(s) (s) (s) (s) (s) (s) (s) (s) (s) (s)	R 146 142 152 150 157 155 159 162 148 154 147 147 R 1,819
2013 January February March April May June July August September October November December Total	(h) (h) (h) (h) (h) (h) (h) (h) (h) (h)	5 4 4 3 3 3 3 3 3 4 4 5 42	(s) (s) (s) (s) (s) (s) (s) (s) (s) (s)	34 31 34 35 37 36 37 38 35 39 35 36 427	16 15 17 17 18 17 19 19 17 18 17 18	(s) (s) (s) (s) (s) (s) (s) (s) (s) (s)	(s) (s) (s) (s) (s) (s) (s) (s) (s) (s)	87 81 91 90 95 92 96 97 R 91 93 90 92 R 1,094	4 3 5 3 2 4 4 5 4 4 4 4 2 <b>4</b> 5	142 130 149 146 153 150 R 157 159 149 R 154 146 148 R 1,784	(s) (s) (s) (s) (s) (s) (s) (s) (s) (s)	147 134 153 R 149 156 153 161 163 152 158 150 153 R 1,830
2014 January February 2-Month Total	(h) (h) (h)	5 4 <b>10</b>	(s) (s)	35 32 <b>67</b>	17 15 <b>33</b>	(s) (s)	(s) (s) 1	87 83 <b>170</b>	2 2 <b>3</b>	141 133 <b>274</b>	(s) (s) 1	146 138 <b>284</b>
2013 2-Month Total 2012 2-Month Total	(h)	9 8	(s) (s)	64 63	31 32	(s) (s)	1 1	168 172	7 10	272 279	1 1	281 288

R=Revised. (s)=Less than 0.5 million metric tons.

Notes: • Data are estimates for carbon dioxide emissions from energy consumption, including the nonfuel use of fossil fuels. See "Section 12 Methodology and Sources" at end of section. • See "Carbon Dioxide" in Glossary.

• See Note 1, "Emissions of Carbon Dioxide and Other Greenhouse Gases," at end of section. • Data exclude emissions from biomass energy consumption. See Table 12.7 and Note 2, "Accounting for Carbon Dioxide Emissions From Biomass Energy Combustion," at end of section.

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

Web Page: See http://www.eia.gov/totalenergy/data/monthly/#environment

Web Page: See http://www.eia.gov/totalenergy/data/monthly/#environmer (Excel and CSV files) for all available annual and monthly data beginning in 1973. Sources: See end of section.

a Metric tons of carbon dioxide can be converted to metric tons of carbon equivalent by multiplying by 12/44.

b Natural gas, excluding supplemental gaseous fuels.

c Distillate fuel oil, excluding biodiesel.

d Liquefied petroleum gases.

e Finished motor gasoline, excluding fuel ethanol.

f Emissions from energy consumption (for electricity and a small amount of useful thermal output) in the electric power sector are allocated to the end-use sectors in proportion to each sector's share of total electricity retail sales. See Tables 7.6 and 12.6. Tables 7.6 and 12.6.

 <sup>9</sup> Excludes emissions from biomass energy consumption. See Table 12.7.
 h Beginning in 1978, the small amounts of coal consumed for transportation are reported as industrial sector consumption.

Table 12.6 Carbon Dioxide Emissions From Energy Consumption: Electric Power Sector (Million Metric Tons of Carbon Dioxidea)

				Petro	leum					
	Coal	Natural Gas <sup>b</sup>	Distillate Fuel Oil <sup>c</sup>	Petroleum Coke	Residual Fuel Oil	Total	Geo- thermal	Non- Biomass Waste <sup>d</sup>	Totale	
1973 Total	812	199	20	2	254	276	NA	NA	1,286	
1975 Total	824	172	17	(s)	231	248	NA	NA	1,244	
1980 Total	1,137	200	12	(0)	194	207	NA	NA	1,544	
1985 Total	1,367	166	6	1	79	86	NA	NA	1,619	
1990 Total	1,548	176	Ž	3	92	102	(s)	6	1.831	
1995 Total	1,661	228	8	8	45	61	(s)	10	1,960	
1996 Total	1.752	205	8	8	50	66	(s)	10	2.033	
1997 Total	1,797	219	8	10	56	75	(s)	10	2,033	
1997 Total		248	10	13	82	105		10	2,101	
1998 Total	1,828 1.836	246 260	10	11	76	97	(s)	10	2,192	
1999 Total							(s)			
2000 Total	1,927	281	13	10	69	91	(s)	10	2,310	
2001 Total	1,870	290	12	11	79	102	(s)	11	2,273	
2002 Total	1,890	306	9	18	52	79	(s)	13	2,288	
2003 Total	1,931	278	12	18	69	98	(s)	11	2,319	
2004 Total	1,943	297	8	23	69	100	(s)	11	2,352	
2005 Total	1,984	319	8	25	69	102	(s)	11	2,417	
2006 Total	1,954	338	5 7	22	28	56	(s)	12	2,359	
2007 Total	1,987	372	7	17	31	55	(s)	11	2,426	
2008 Total	1,959	362	5	16	19	40	(s)	12	2,374	
2009 Total	1,741	373	5	14	14	34	(s)	11	2,159	
2010 Total	1,828	399	6	15	12	33	(s)	11	2,271	
2011 Total	1,723	409	5	15	7	27	(s)	11	2,171	
2011 10441	1,120	400		.0	•		(0)	• • • • • • • • • • • • • • • • • • • •	-,	
2012 January	130	35	(s)	1	1	2	(s)	1	168	
February	115	35	(s)	i	(s)	2	(s)	1	153	
March	105	36	(s)	i	(s)	1	(s)	i	144	
April	95	39	(s)	4	(s)	i	\ \\	4	135	
	115	44	(s)	1	(s)	i	(s)	4	161	
May	131	48	(s)	1	(5)	2	(s)	1	181	
June		58	(5)	1	<u> </u>	2		1	220	
July	158		(s)	1	1	2	(s)	- 1		
August	151	54	(s)	1	1	2	(S)	1	208	
September	127	43	(s)	1	(s)	1	(s)	1	173	
October	122	36	(s)	1	(s)	1	(s)	1	160	
November	128	31	(s)	1	(s)	1	(s)	1	162	
December	134	32	(s)	1	(s)	2	(s)	1	169	
Total	1,511	493	4	9	6	19	(s)	11	2,035	
<b>2013</b> January	137	34	(s)	1	1	2	(s)	1	175	
February	123	31	(s)	1	. 1	2	(s)	1	156	
March	129	33	(s)	1	(s)	2 2	(s)	1	164	
April	111	30	(s)	1	(s)	2	(s)	1	144	
May	118	33	(s)	1	(s)	2 2 2 2 2	(s)	1	155	
June	138	40	(s)	1	(s)	2	(s)	1	180	
July	152	49	(s)	1	`1	2	(s)	1	205	
August	150	49	(s)	1	1	2	(s)	1	202	
September	133	41	(s)	1	(s)	2	(s)	1	177	
October	121	35	(s)	i	(s)	2	(s)	1	159	
November	121	32	(s)	i	(s)	2	(s)	i	156	
December	141	36	(s)	i	1	2	(s)	i	180	
Total	1,575	442	4	13	6	23	(s)	11	2,053	
	.,				•		(-)	• •	_,,,,,	
2014 January	153	36	2	1	2	5	(s)	1	196	
February	140	30	1	1	1	2	(s)	1	173	
2-Month Total	293	66	3	2	3	8	(s)	2	369	
							<b>`</b>			
2013 2-Month Total 2012 2-Month Total	260 245	65	1	2 2	1	4	(s)	2 2	331 320	
	/45	70	1		1	4	(s)	,		

a Metric tons of carbon dioxide can be converted to metric tons of carbon

Sources: See end of section.

<sup>a Metric tons of carbon dioxide can be converted to metric tons of carbon equivalent by multiplying by 12/44.
b Natural gas, excluding supplemental gaseous fuels.
c Distillate fuel oil, excluding biodiesel.
d Municipal solid waste from non-biogenic sources, and tire-derived fuels.
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.</sup> 

See "Carbon Dioxide" in Glossary.
 See Note 1, "Emissions of Carbon Dioxide and Other Greenhouse Gases," at end of section.
 Data exclude emissions from biomass energy consumption.
 See Table 12.7 and Note 2, "Accounting for Carbon Dioxide Emissions From Biomass Energy Combustion," at end of section.
 Totals may not equal sum of components due to independent rounding.
 Geographic coverage is the 50 states and the District of Columbia.
 Web Page: See http://www.eia.gov/totalenergy/data/monthly/#environment (Excel and CSV files) for all available annual and monthly data beginning in 1973.

Table 12.7 Carbon Dioxide Emissions From Biomass Energy Consumption

			By Source			By Sector						
	Woodb	Biomass Waste <sup>c</sup>	Fuel Ethanol <sup>d</sup>	Bio- diesel	Total	Resi- dential	Com- mercial <sup>e</sup>	Indus- trial <sup>f</sup>	Trans- portation	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 1999 Total	205 208	30 29	8 8	NA NA	242 245	36 37	9	160 161	8 8	30 30 30	242 245	
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 2	261	40	10	150	23	37	261	
2006 Total	197	36	31		266	36	9	151	33	38	266	
2007 Total	196	37	39	3	276	39	9	146	41	39	276	
2008 Total	193	39	55	3	290	44	10	139	57	40	290	
2009 Total	181	41	62	3	287	47	10	125	64	41	287	
2010 Total	186	42	73	2	303	41	10	136	74	42	303	
2011 Total	189	42	73	8	312	42	11	139	80	40	312	
2012 January February	16 15	3	6	(s)	26 25	3	1	12 11	6 6	4 3	26 25	
March April	16 15	4 3	6 6	i 1	26 25	3	1 1	12 11	7	3	26 25	
May June	16 15 16	3 3 4	6 6 6	1 1 1	26 26 27	3 3 3	1 1 1	12 11 12	7 7 7	3 3 4	26 26 27	
July August September	16 16	4 3	7 6	1 1	27 26	3 3	1 1	12 12	7 6	4 3	27 26	
October November	16 16	4 4 4	6 6	1 1	26 26	3 3 3	1 1 1	12 12	7 6	3 3 4	26 26	
December Total	16 <b>189</b>	<b>42</b>	6 <b>73</b>	(s) <b>8</b>	27 <b>312</b>	39	10	12 <b>141</b>	6 <b>80</b>	<b>42</b>	27 <b>312</b>	
2013 January	17	4	6	1	27	5	1	12	6	4	27	
	15	3	5	1	25	4	1	11	6	3	25	
	17	4	6	1	28	5	1	11	7	4	28	
March April May	16 16	3 4	6 7	1 1	26 26 28	4 5	1 1	11 11 11	7 7 7	3	26 26 28	
June July	17 18 17	4 4 4	6 6 6	1 1 1	28 29 28	4 5 5	1 1 1	11 12 12	7 7 7	4 4 4	28 29	
August September October	16 17	3 4	6 6	1 2	26 27 28	4 5	1 1	12 11 11	7 7 8	4 4 4	28 27 28	
November	17	4	6	1	28	4	1	11	7	4	28	
December	18	4	6	2	29	5	1	12	8	4	29	
<b>Total</b>	<b>201</b>	<b>43</b>	<b>75</b>	<b>13</b>	<b>331</b>	<b>54</b>	<b>11</b>	<b>137</b>	<b>86</b>	<b>43</b>	<b>331</b>	
2014 January	17	4	6	1	28	5	1	11	7	4	28	
February	16	3	6	1	25	4	1	10	7	4	25	
2-Month Total	<b>33</b>	<b>7</b>	<b>12</b>	<b>2</b>	<b>53</b>	<b>9</b>	2	<b>21</b>	<b>13</b>	<b>8</b>	<b>53</b>	
2013 2-Month Total	33	7	11	1	52	9	2	22	12	7	52	
2012 2-Month Total	31	7	11	1	51	6	2	23	12	7	51	

<sup>&</sup>lt;sup>a</sup> Metric tons of carbon dioxide can be converted to metric tons of carbon

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

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

Notes: • Carbon dioxide emissions from biomass energy consumption are excluded from the energy-related carbon dioxide emissions reported in Tables 12.1–12.6. See Note 2, "Accounting for Carbon Dioxide Emissions From Biomass Energy Combustion," at end of section. • Data are estimates. See "Section 12 Methodology and Sources" at end of section. • See "Carbon Dioxide" in Glossary. • See Note 1, "Emissions of Carbon Dioxide and Other Greenhouse Gases," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia. Web Page: See http://www.eia.gov/totalenergy/data/monthly/#environment (Excel and CSV files) for all available annual and monthly data beginning in 1973.

Sources: See end of section.

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.

I Industrial sector, including industrial industrial electricity-only plants.

g The electric power sector comprises electricity-only and

power 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.

#### **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 (shortwave) 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/.

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 nonenergy 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 nonfossil 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 fossilbased petroleum denaturant, to make the fuel ethanol For 1993-2008, petroleum denaturant is undrinkable. 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/ggrpt/documentation/pdf/0638(2008).pdf.

To obtain monthly estimates of nonfuel use and associated carbon sequestration, monthly patterns for industrial consumption and product supplied data series are used. For coal nonfuel use, the monthly pattern for coke plants coal consumption from MER Table 6.2 is used. For natural gas, the monthly pattern for other industrial non-CHP natural gas consumption from MER Table 4.3 is used. For distillate fuel oil, petroleum coke, and residual fuel oil, the monthly patterns for industrial consumption from MER Table 3.7b are used. For the other petroleum products, the monthly patterns for product supplied from the PSA and PSM are used.

### **Step 4. Determine Carbon Dioxide Emissions From Energy Consumption**

Carbon dioxide (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/ggrpt/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 "Methodolology for Allocating Municipal Solid Waste to Biogenic and Non-Biogenic Energy," Table 1 at http://www.eia.gov/totalenergy/data/monthly/pdf/historical/msw.pdf.

THIS PAGE INTENTIONALLY LEFT BLANK

## 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	<b>Heat Content</b>
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 Gasolined		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>&</sup>lt;sup>a</sup> 60 percent butane and 40 percent propane.

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.

<sup>&</sup>lt;sup>b</sup> Does not include biodiesel. See Table A3 for biodiesel heat contents.

<sup>° 70</sup> percent ethane and 30 percent propane.

<sup>&</sup>lt;sup>d</sup> See Table A3 for motor gasoline weighted heat contents beginning in 1994, and for fuel ethanol heat contents.

Table A2. Approximate Heat Content of Petroleum Production, Imports, and Exports (Million Btu per Barrel)

	Pro	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	
950	5.800	4.522	5.943	6.263	6.080	5.800	5.751	5.766	
955		4.406	5.924	6.234	6.040	5.800	5.765	5.768	
960		4.295	5.911	6.161	6.021	5.800	5.835	5.834	
965		4.264	5.872	6.123	5.997	5.800	5.742	5.743	
970		4.146	5.822	6.088	5.985	5.800	5.811	5.810	
975		3.984	5.821	5.935	5.858	5.800	5.747	5.748	
		3.914	5.812	5.748	5.796		5.841	5.820	
980 981						5.800			
		3.930	5.818	5.659	5.775	5.800	5.837	5.821	
982		3.872	5.826	5.664	5.775	5.800	5.829	5.820	
983		3.839	5.825	5.677	5.774	5.800	5.800	5.800	
984		3.812	5.823	5.613	5.745	5.800	5.867	5.850	
985		3.815	5.832	5.572	5.736	5.800	5.819	5.814	
986		3.797	5.903	5.624	5.808	5.800	5.839	5.832	
987		3.804	5.901	5.599	5.820	5.800	5.860	5.858	
988		3.800	5.900	5.618	5.820	5.800	5.842	5.840	
989		3.826	5.906	5.641	5.833	5.800	5.869	5.857	
990		3.822	5.934	5.614	5.849	5.800	5.838	5.833	
991	5.800	3.807	5.948	5.636	5.873	5.800	5.827	5.823	
992	5.800	3.804	5.953	5.623	5.877	5.800	5.774	5.777	
993	5.800	3.801	5.954	5.620	5.883	5.800	5.777	5.779	
994		3.794	5.950	5.534	5.861	5.800	5.777	5.779	
995	5.800	3.796	5.938	5.483	5.855	5.800	5.740	5.746	
996		3.777	5.947	5.468	5.847	5.800	5.728	5.736	
997	5.800	3.762	5.954	5.469	5.862	5.800	5.726	5.734	
998		3.769	5.953	5.462	5.861	5.800	5.710	5.720	
999		3.744	5.942	5.421	5.840	5.800	5.684	5.699	
000		3.733	5.959	5.432	5.849	5.800	5.651	5.658	
001		3.735	5.976	5.443	5.862	5.800	5.751	5.752	
002		3.729	5.971	5.451	5.863	5.800	5.687	5.688	
003		3.739	5.970	5.438	5.857	5.800	5.739	5.740	
004		3.724	5.981	5.475	5.863	5.800	5.753	5.754	
005		3.724	5.977	5.474	5.845	5.800	5.741	5.743	
006		3.712	5.980	5.454	5.842	5.800	5.723	5.724	
007		3.712	5.985	5.503	5.862		5.749	5.750	
						5.800			
008		3.706	5.990	5.479	5.866	5.800	5.762	5.762	
009		3.692	5.988	5.525	5.882	5.800	5.737	5.738	
010		3.674	5.989	5.557	5.894	5.800	5.670	5.672	
011		3.672	6.008	5.507	5.896	5.800	5.596	5.599	
012		3.683	6.165	5.514	6.038	5.800	5.583	5.587	
013 <sup>P</sup>	5.800	3.714	6.043	5.490	5.926	5.800	5.507	5.517	
014 <sup>E</sup>	5.800	3.714	6.043	5.490	5.926	5.800	5.507	5.517	

<sup>&</sup>lt;sup>a</sup> Includes lease condensate. P=Preliminary. E=Estimate.

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

Web Page: See http://www.eia.gov/totalenergy/data/monthly/#appendices (Excel and CSV files) for all available annual data beginning in 1949. Sources: See "Thermal Conversion Factor Source Documentation," which follows Table A6.

Table A3. Approximate Heat Content of Petroleum Consumption and Biofuels Production (Million Btu per Barrel)

	Total Petroleum <sup>a</sup> Consumption by Sector						Liquefied Petroleum	Motor		Fuel Ethanol		Biodiesel
	Resi- dential	Com- mercial <sup>b</sup>	Indus- trial <sup>b</sup>	Trans- portation <sup>b,c</sup>	Electric Power <sup>d,e</sup>	Total <sup>b,c</sup>	Gases Con- sumption <sup>f</sup>	Gasoline Con- sumption <sup>g</sup>	Fuel Ethanol <sup>h</sup>	Feed- stock Factor	Biodiesel	Feed- stock Factor
1950	5.473	5.817	5.953	5.461	6.254	5.649	4.011	5.253	NA	NA	NA	NA
1955	5.469	5.781	5.881	5.407	6.254	5.591	4.011	5.253	NA NA	NA	NA	NA
1960	5.417	5.781	5.818	5.387	6.267	5.555	4.011	5.253	NA NA	NA	NA	NA
1965	5.364	5.760	5.748	5.386	6.267	5.532	4.011	5.253	NA NA	NA	NA	NA
1970	5.260	5.708	5.595	5.393	6.252	5.503	f 3.779	5.253	NA 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	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	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	d 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	<sup>b</sup> 5.505	<sup>b</sup> 5.178	<sup>b</sup> 5.436	6.230	<sup>b</sup> 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	g 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	4.921	5.316	5.144	5.407	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	4.790	5.186	5.154	5.424	6.123	5.339	3.600	5.218	3.563	5.983	5.359	5.433
2009	4.679	5.249	5.019	<sup>c</sup> 5.414	6.105	c 5.301	3.558	5.218	3.563	5.957	5.359	5.433
2010	4.679	5.230	4.985	5.423	6.084	5.297	3.557	5.218	3.561	5.931	5.359	5.433
2011	4.660	5.200	4.964	5.425	6.058	5.286	3.541	5.218	3.560	5.905	5.359	5.433
2012	4.726	5.157	4.913	5.418	6.063	5.274	3.534	5.219	3.560	5.880	5.359	5.433
2013	E 4.539	E 4.983	E 4.918	E 5.417	P 6.058	<sup>P</sup> 5.265	P 3.555	P 5.219	P 3.559	5.880	5.359	5.433
2014	E 4.539	E 4.983	<sup>E</sup> 4.918	E 5.417	E 6.058	E 5.265	E 3.555	<sup>E</sup> 5.219	E 3.559	5.880	5.359	5.433

a Petroleum products supplied, including natural gas plant liquids and crude oil burned directly as fuel. Quantity-weighted averages of the petroleum products included in

P=Preliminary. E=Estimate. NA=Not available.

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

Web Page: See http://www.eia.gov/totalenergy/data/monthly/#appendices (Excel and CSV files) for all available annual data beginning in 1949. Sources: See "Thermal Conversion Factor Source Documentation," which follows Table A6.

each category are calculated by using heat content values shown in Table A1.

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

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

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

e Electric power sector factors are weighted average heat contents for distillate fuel oil, petroleum coke, and residual fuel oil; they exclude other liquids.

f There is a discontinuity in this time series between 1966 and 1967; beginning in 1967, the single constant factor is replaced by a quantity-weighted

factor—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.

h Includes denaturant (petroleum added to ethanol to make it undrinkable). Fuel ethanol factors are weighted average heat contents for undenatured ethanol (3.539 million Btu per barrel), pentanes plus used as denaturant (4.620 million Btu per barrel), and conventional motor gasoline 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.

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.

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.

Table A4. Approximate Heat Content of Natural Gas

(Btu per Cubic Foot)

	Production			Consumption <sup>a</sup>			
	Marketed	Dry	End-Use Sectors <sup>b</sup>	Electric Power Sector <sup>c</sup>	Total	Imports	Exports
1950	1.119	1,035	1,035	1,035	1,035		1,035
1955	1,113	1.035	1,035	1,035	1,035	1.035	1,035
1960	1,107	1,035	1,035	1,035	1,035	1,035	1,035
965	1,101	1,032	1,032	1,032	1,032	1,032	1,032
970	1,102	1,031	1,031	1,032	1,031	1,032	1,032
975	1,095	1,021	1,020	1,026	1,021	1,026	1,014
	1,098	1,026	1,024	1,026	1,026	,	1,013
980						1,022	
981	1,103	1,027	1,025	1,035	1,027	1,014	1,011
982	1,107	1,028	1,026	1,036	1,028	1,018	1,011
983	1,115	1,031	1,031	1,030	1,031	1,024	1,010
984	1,109	1,031	1,030	1,035	1,031	1,005	1,010
985	1,112	1,032	1,031	1,038	1,032	1,002	1,011
986	1,110	1,030	1,029	1,034	1,030	997	1,008
987	1,112	1,031	1,031	1,032	1,031	999	1,011
988	1,109	1,029	1,029	1,028	1,029	1,002	1,018
989	1,107	1,031	1,031	c 1,028	1,031	1,004	1,019
990	1,105	1,029	1,030	1,027	1,029	1,012	1,018
991	1,108	1,030	1,031	1,025	1,030	1,014	1,022
992	1,110	1,030	1,031	1,025	1,030	1,011	1,018
993	1,106	1,027	1,028	1,025	1,027	1,020	1,016
994	1,105	1,028	1,029	1,025	1,028	1,022	1,011
995	1,106	1,026	1,027	1,021	1,026	1,021	1,011
996	1,109	1,026	1,027	1,020	1,026	1,022	1,011
997	1,107	1,026	1,027	1,020	1,026	1,023	1,011
998	1,109	1,031	1,033	1,024	1,031	1,023	1,011
999	1.107	1.027	1.028	1.022	1.027	1.022	1.006
000	1.107	1.025	1.026	1.021	1.025	1.023	1,006
001	1,105	1,028	1,029	1,026	1,028	1,023	1,010
002	1,103	1.024	1,025	1,020	1.024	1.022	1,008
003	1,103	1,028	1,029	1,025	1,028	1,025	1,009
004	1,104	1,026	1,026	1,023	1,026	1,025	1,009
005	1,104	1,028	1,028	1,027	1,028	1,025	1,009
006							
	1,103	1,028	1,028	1,028	1,028	1,025	1,009
007	1,102	1,027	1,027	1,027	1,027	1,025	1,009
008 800	1,100	1,027	1,027	1,027	1,027	1,025	1,009
009	1,101	1,025	1,025	1,025	1,025	1,025	1,009
010	1,098	1,023	1,023	1,022	1,023	1,025	1,009
011	1,142	1,022	1,022	1,021	1,022	1,025	1,009
012	_ 1,065	_1,024	_ 1,025	1,022	_1,024	_ 1,025	_1,009
013	E 1,065	E 1,025	E 1,025	P 1,025	E 1,025	E 1,025	E 1,009
014	E 1,065	E 1,025	E 1,025	E 1,025	E 1,025	E 1,025	E 1,009

a Consumption factors are for natural gas, plus a small amount of supplemental gaseous fuels.
 b Residential, commercial, industrial, and transportation sectors.

b Residential, commercial, industrial, and transportation sectors.
c Electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public. Through 1988, data are for electric utilities only; beginning in 1989, data are for electric utilities and independent power producers.
P=Preliminary. E=Estimate. ——=Not applicable.
Note: The values in this table are for gross heat contents. See "Heat Content" in Glossary.
Web Page: See http://www.eia.gov/totalenergy/data/monthly/#appendices (Excel and CSV files) for all available annual data beginning in 1949.
Sources: See "Thermal Conversion Factor Source Documentation," which follows Table A6.

#### Table A5. Approximate Heat Content of Coal and Coal Coke

(Million Btu per Short Ton)

					Coal					Coal Coke
				C	onsumption					
		Wasta	Residential Industrial							Immerto
	Production <sup>a</sup>	Waste Coal Supplied <sup>b</sup>	and Commercial Sectors <sup>c</sup>	Coke Plants	Other <sup>d</sup>	Power Sector <sup>e,f</sup>	Total	Imports	Exports	Imports and Exports
1950	25.090	NA	24.461	26.798	24.820	23.937	24.989	25.020	26.788	24.800
1955		NA	24.373	26.794	24.821	24.056	24.982	25.000	26.907	24.800
1960		NA	24.226	26.791	24.609	23.927	24.713	25.003	26.939	24.800
1965		NA	24.028	26.787	24.385	23.780	24.537	25.000	26.973	24.800
1970		NA	23.203	26.784	22.983	22.573	23.440	25.000	26.982	24.800
1975		NA	22.261	26.782	22.436	21.642	22.506	25.000	26.562	24.800
1980		NA	22.543	26.790	22.690	21.295	21.947	25.000	26.384	24.800
1981		NA	22.474	26.794	22.585	21.085	21.713	25.000	26.160	24.800
1982		NA	22.695	26.797	22.712	21.194	21.674	25.000	26.223	24.800
1983		NA	22.775	26.798	22.691	21.133	21.576	25.000	26.291	24.800
1984		NA	22.844	26.799	22.543	21.101	21.573	25.000	26.402	24.800
1985		NA	22.646	26.798	22.020	20.959	21.366	25.000	26.307	24.800
1986		NA	22.947	26.798	22.198	21.084	21.462	25.000	26.292	24.800
1987		NA	23.404	26.799	22.381	21.136	21.517	25.000	26.291	24.800
1988		NA	23.571	26.799	22.360	20.900	21.328	25.000	26.299	24.800
1989		<sup>b</sup> 10.391	23.650	26.800	22.347	e 20.898	21.307	25.000	26.160	24.800
1990		9.303	23.137	26.799	22.457	20.779	21.197	25.000	26.202	24.800
1991		10.758	23.114	26.799	22.460	20.779	21.120	25.000	26.188	24.800
1992		10.736	23.114	26.799	22.250	20.709	21.068	25.000	26.161	24.800
1993		10.638	22.994	26.800	22.230	20.677			26.335	24.800
1994		11.097	23.112		22.123	20.589	21.010 20.929	25.000 25.000	26.333	24.800
				26.800						
1995		11.722	23.118	26.800	21.950	20.543	20.880	25.000	26.180	24.800
1996		12.147	23.011	26.800	22.105	20.547	20.870	25.000	26.174	24.800
1997		12.158	22.494	26.800	22.172	20.518	20.830	25.000	26.251	24.800
1998		12.639	21.620	27.426	23.164	20.516	20.881	25.000	26.800	24.800
1999		12.552	23.880	27.426	22.489	20.490	20.818	25.000	26.081	24.800
2000		12.360	25.020	27.426	22.433	20.511	20.828	25.000	26.117	24.800
2001		12.169	24.909	27.426	22.622	20.337	20.671	25.000	25.998	24.800
2002		12.165	22.962	27.426	22.562	20.238	20.541	25.000	26.062	24.800
2003		12.360	22.242	27.425	22.468	20.082	20.387	25.000	25.972	24.800
2004		12.266	22.324	27.426	22.473	19.980	20.290	25.000	26.108	24.800
2005		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		12.090	22.069	26.329	22.371	19.909	20.168	25.000	25.466	24.800
2008		12.121	c 23.035	26.281	22.304	19.713	19.979	25.000	25.399	24.800
2009		12.076	22.852	26.334	21.823	19.521	19.741	25.000	25.633	24.800
2010		11.960	22.611	26.295	21.846	19.623	19.870	25.000	25.713	24.800
2011		11.604	22.099	26.299	21.568	19.341	19.600	25.000	25.645	24.800
2012	20.215	11.539	21.300	26.302	21.449	19.211	19.489	23.128	24.551	24.800
2013		P 12.428	P 21.233	P 28.705	P 21.623	P 19.210	P 19.548	P 23.367	P 24.604	P 24.800
2014	<sup>E</sup> 20.187	E 12.428	E 21.233	E 28.705	E 21.623	E 19.210	E 19.548	E 23.367	E 24.604	E 24.800

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

P=Preliminary. E=Estimate. NA=Not available.

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

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

Sources: See "Thermal Conversion Factor Source Documentation," which follows Table A6.

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

Through 2007, used as the thermal conversion factor for coal consumption by the residential and commercial sectors. Beginning in 2008, used as the thermal

Through 2007, used as the thermal conversion factor for coal consumption by the residential and commercial sectors. Beginning in 2006, used as the thermal conversion factor for coal consumption by the commercial sector only.

d Includes transportation. Excludes coal synfuel plants.

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

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

Table A6. Approximate Heat Rates for Electricity, and Heat Content of Electricity

(Btu per Kilowatthour)

		Approx	imate Heat Rates	sa for Electricity Net G	eneration		
		Fossil	Fuels <sup>b</sup>			Non-amboutible	
	Coal <sup>c</sup>	Petroleum <sup>d</sup>	Natural Gas <sup>e</sup>	Total Fossil Fuels <sup>f,g</sup>	<b>N</b> uclear <sup>h</sup>	Noncombustible Renewable Energy <sup>g,i</sup>	Heat Content <sup>j</sup> of Electricity <sup>k</sup>
1950	NA	NA	NA	14.030		14.030	3,412
1955	NA NA	NA NA	NA NA	11,699		11,699	3,412
1960	NA	NA	NA	10,760	11.629	10,760	3,412
1965	NA NA	NA	NA	10,453	11,804	10,453	3,412
1970		NA	NA	10,494	10,977	10,494	3,412
1975		NA	NA	10,406	11.013	10.406	3,412
1980		NA NA	NA NA	10,388	10,908	10,388	3,412
1981		NA NA	NA NA	10,453	11.030	10,453	3,412
1982		NA NA	NA NA	10,453	11,030	10,453	3,412
1983		NA NA	NA NA	10,434	10.905	10,434	3,412
1984		NA NA	NA NA	- /	-,	- /	- /
		NA NA	NA NA	10,440	10,843	10,440	3,412
1985				10,447	10,622	10,447	3,412
1986		NA	NA	10,446	10,579	10,446	3,412
1987		NA	NA	10,419	10,442	10,419	3,412
1988		NA	NA	10,324	10,602	10,324	3,412
1989		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	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	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	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>ь</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	10,422	10,125	3,412
2004	10,331	10,571	8,647	10,016	10,428	10,016	3,412
2005	10,373	10,631	8,551	9,999	10,436	9,999	3,412
2006		10,809	8,471	9,919	10,435	9,919	3,412
2007	10,375	10,794	8,403	9,884	10,489	9,884	3,412
2008	10,378	11,015	8,305	9,854	10,452	9,854	3,412
2009	10,414	10,923	8,159	9,760	10,459	9,760	3,412
2010	10,415	10,984	8,185	9,756	10,452	9,756	3,412
2011	10.444	10,829	8,152	9.716	10,464	9,716	3,412
2012	10,498	10.991	8.039	9.516	10,479	9.516	3.412
2013	E 10,498	E 10.991	E 8.039	E 9.516	E 10,479	<sup>E</sup> 9,516	3,412
2014		E 10,991	E 8.039	E 9.516	E 10,479	<sup>E</sup> 9.516	3,412
	10,-100	10,001	0,000	0,010	10,470	5,515	0,712

a The values in columns 1–6 of this table are for net heat rates. See "Heat Rate" in Glossary.
 b Through 2000, heat rates are for fossil-fueled steam-electric plants at electric utilities. Beginning in 2001, heat rates are for all fossil-fueled plants at electric utilities and

electricity-only independent power producers.

<sup>c</sup> Includes anthracite, bituminous coal, subbituminous coal, lignite, and, beginning in 2002, waste coal and coal synfuel.

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

e Includes natural gas and supplemental gaseous fuels.

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

<sup>&</sup>lt;sup>9</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.

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

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

J See "Heat Content" in Glossary.

<sup>\*\*</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. E=Estimate. NA=Not available. ——=Not applicable.

Web Page: See http://www.eia.gov/totalenergy/data/monthly/#appendices (Excel and CSV files) for all available annual data beginning in 1949. Sources: See "Thermal Conversion Factor Source Documentation," which follows this table.

# Thermal Conversion Factor Source Documentation

#### Approximate Heat Content of Petroleum and Natural Gas Plant Liquids

**Asphalt**. The U.S. Energy Information Administration (EIA) adopted the thermal conversion factor of 6.636 million British thermal units (Btu) per barrel as estimated by the Bureau of Mines and first published in the *Petroleum Statement, Annual, 1956*.

**Aviation Gasoline**. EIA adopted the thermal conversion factor of 5.048 million Btu per barrel as adopted by the Bureau of Mines from the Texas Eastern Transmission Corporation publication *Competition and Growth in American Energy Markets* 1947–1985, a 1968 release of historical and projected statistics.

**Butane**. EIA adopted the Bureau of Mines thermal conversion factor of 4.326 million Btu per barrel as published in the *California Oil World and Petroleum Industry*, First Issue, April 1942.

**Butane-Propane Mixture**. EIA adopted the Bureau of Mines calculation of 4.130 million Btu per barrel based on an assumed mixture of 60 percent butane and 40 percent propane. See **Butane** and **Propane**.

**Crude Oil Exports**. Assumed by EIA to be 5.800 million Btu per barrel or equal to the thermal conversion factor for crude oil produced in the United States. See **Crude Oil Production**.

Crude Oil Imports. Calculated annually by EIA as the average of the thermal conversion factors for each type of crude oil imported weighted by the quantities imported. Thermal conversion factors for each type were calculated on a foreign country basis, by determining the average American Petroleum Institute (API) gravity of crude oil imported from each foreign country from Form ERA-60 in 1977 and converting average API gravity to average Btu content by using National Bureau of Standards, Miscellaneous Publication No. 97, *Thermal Properties of Petroleum Products*, 1933.

**Crude Oil Production**. EIA adopted the thermal conversion factor of 5.800 million Btu per barrel as reported in a Bureau of Mines internal memorandum, "Bureau of Mines Standard Average Heating Values of Various Fuels, Adopted January 3, 1950."

**Distillate Fuel Oil.** EIA adopted the Bureau of Mines thermal conversion factor of 5.825 million Btu per barrel as reported in a Bureau of Mines internal memorandum, "Bureau of Mines Standard Average Heating Values of Various Fuels, Adopted January 3, 1950."

**Ethane**. EIA adopted the Bureau of Mines thermal conversion factor of 3.082 million Btu per barrel as published in the *California Oil World and Petroleum Industry*, First Issue, April 1942.

**Ethane-Propane Mixture**. EIA calculation of 3.308 million Btu per barrel based on an assumed mixture of 70 percent ethane and 30 percent propane. See **Ethane** and **Propane**.

**Isobutane**. EIA adopted the Bureau of Mines thermal conversion factor of 3.974 million Btu per barrel as published in the *California Oil World and Petroleum Industry*, First Issue, April 1942.

**Jet Fuel, Kerosene-Type**. EIA adopted the Bureau of Mines thermal conversion factor of 5.670 million Btu per barrel for "Jet Fuel, Commercial" as published by the Texas Eastern Transmission Corporation in the report *Competition and Growth in American Energy Markets 1947–1985*, a 1968 release of historical and projected statistics.

**Jet Fuel, Naphtha-Type**. EIA adopted the Bureau of Mines thermal conversion factor of 5.355 million Btu per barrel for "Jet Fuel, Military" as published by the Texas Eastern Transmission Corporation in the report *Competition and Growth in American Energy Markets* 1947–1985, a 1968 release of historical and projected statistics.

**Kerosene**. EIA adopted the Bureau of Mines thermal conversion factor of 5.670 million Btu per barrel as reported in a Bureau of Mines internal memorandum, "Bureau of Mines Standard Average Heating Values of Various Fuels, Adopted January 3, 1950."

Liquefied Petroleum Gases Consumption. • 1949–1966: U.S. Department of the Interior, Bureau of Mines, Mineral Industry Surveys, "Crude Petroleum and Petroleum Products, 1956," Table 4 footnote, constant value of 4.011 million Btu per barrel. • 1967 forward: Calculated annually by EIA as the average of the thermal conversion factors for all liquefied petroleum gases consumed (see Table A1) weighted by the quantities consumed. The component products of liquefied petroleum gases are ethane (including ethylene), propane (including propylene), normal butane (including butylene), butane-propane mixtures, ethane-propane mixtures, and isobutane. For 1967–1980, quantities consumed are from EIA, Energy Data Reports, "Petroleum Statement, Annual," Table 1. For 1981 forward, quantities consumed are from EIA, Petroleum Supply Annual, Table 2.

**Lubricants**. EIA adopted the thermal conversion factor of 6.065 million Btu per barrel as estimated by the Bureau of Mines and first published in the *Petroleum Statement*, *Annual*. 1956.

**Miscellaneous Products**. EIA adopted the thermal conversion factor of 5.796 million Btu per barrel as estimated by the Bureau of Mines and first published in the *Petroleum Statement*, *Annual*, 1956.

**Motor Gasoline Consumption.** • 1949–1993: EIA adopted the Bureau of Mines thermal conversion factor of 5.253 million Btu per barrel for "Gasoline, Motor Fuel" as published by the Texas Eastern Transmission Corporation in Appendix V of *Competition and Growth in American Energy Markets 1947–1985*, a 1968 release of historical and projected statistics. • 1994 forward: EIA calculated

national annual quantity-weighted average conversion factors for conventional, reformulated, and oxygenated motor gasolines (see Table A3). The factor for conventional motor gasoline is 5.253 million Btu per barrel, as used for previous years. The factors for reformulated and oxygenated gasolines, both currently 5.150 million Btu per barrel, are based on data published in Environmental Protection Agency, Office of Mobile Sources, National Vehicle and Fuel Emissions Laboratory report EPA 420-F-95-003, "Fuel Economy Impact Analysis of Reformulated Gasoline." See **Fuel Ethanol (Denatured).** 

**Natural Gas Plant Liquids Production**. Calculated annually by EIA as the average of the thermal conversion factors for each natural gas plant liquid produced weighted by the quantities produced.

**Natural Gasoline**. EIA adopted the thermal conversion factor of 4.620 million Btu per barrel as estimated by the Bureau of Mines and first published in the *Petroleum Statement*, *Annual*, 1956.

**Pentanes Plus**. EIA assumed the thermal conversion factor to be 4.620 million Btu or equal to that for natural gasoline. See **Natural Gasoline**.

**Petrochemical Feedstocks, Naphtha less than 401° F.** Assumed by EIA to be 5.248 million Btu per barrel or equal to the thermal conversion factor for special naphthas. See **Special Naphthas**.

**Petrochemical Feedstocks, Other Oils equal to or greater than 401° F.** Assumed by EIA to be 5.825 million Btu per barrel or equal to the thermal conversion factor for distillate fuel oil. See **Distillate Fuel Oil**.

**Petrochemical Feedstocks, Still Gas.** Assumed by EIA to be 6.000 million Btu per barrel or equal to the thermal conversion factor for still gas. See **Still Gas**.

**Petroleum Coke**. EIA adopted the thermal conversion factor of 6.024 million Btu per barrel as reported in Btu per short ton in the Bureau of Mines internal memorandum, "Bureau of Mines Standard Average Heating Values of Various Fuels, Adopted January 3, 1950." The Bureau of Mines calculated this factor by dividing 30.120 million Btu per short ton, as given in the referenced Bureau of Mines internal memorandum, by 5.0 barrels per short ton, as given in the Bureau of Mines Form 6-1300-M and successor EIA forms.

Petroleum Consumption, Commercial Sector. Calculated annually by EIA as the average of the thermal conversion factors for all petroleum products consumed by the commercial sector weighted by the estimated quantities consumed by the commercial sector. The quantities of petroleum products consumed by the commercial sector are estimated in the State Energy Data System—see

documentation at

http://www.eia.gov/state/seds/sep\_use/notes/use\_petrol.pdf.

**Petroleum Consumption, Electric Power Sector**. Calculated annually by EIA as the average of the thermal conversion factors for all petroleum products consumed by the electric power sector weighted by the quantities consumed by the electric power sector. Data are from Form EIA-923, "Power Plant Operations Report," and predecessor forms.

**Petroleum Consumption, Industrial Sector**. Calculated annually by EIA as the average of the thermal conversion factors for all petroleum products consumed by the industrial sector weighted by the estimated quantities consumed by the industrial sector. The quantities of petroleum products consumed by the industrial sector are estimated in the State Energy Data System—see documentation at <a href="http://www.eia.gov/state/seds/sep">http://www.eia.gov/state/seds/sep</a> use/notes/use petrol.pdf.

**Petroleum Consumption, Residential Sector**. Calculated annually by EIA as the average of the thermal conversion factors for all petroleum products consumed by the residential sector weighted by the estimated quantities consumed by the residential sector. The quantities of petroleum products consumed by the residential sector are estimated in the State Energy Data System—see documentation at http://www.eia.gov/state/seds/sep\_use/notes/use\_petrol.pdf.

**Petroleum Consumption, Total.** Calculated annually by EIA as the average of the thermal conversion factors for all petroleum products consumed weighted by the quantities consumed.

Petroleum Consumption, Transportation Sector. Calculated annually by EIA as the average of the thermal conversion factors for all petroleum products consumed by the transportation sector weighted by the estimated quantities consumed by the transportation sector. The quantities of petroleum products consumed by the transportation sector are estimated in the State Energy Data System—see documentation at

http://www.eia.gov/state/seds/sep\_use/notes/use\_petrol.pdf.

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

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

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

**Propane**. EIA adopted the Bureau of Mines thermal conversion factor of 3.836 million Btu per barrel as

published in the *California Oil World and Petroleum Industry*, First Issue, April 1942.

**Residual Fuel Oil**. EIA adopted the thermal conversion factor of 6.287 million Btu per barrel as reported in the Bureau of Mines internal memorandum, "Bureau of Mines Standard Average Heating Values of Various Fuels, Adopted January 3, 1950."

**Road Oil.** EIA adopted the Bureau of Mines thermal conversion factor of 6.636 million Btu per barrel, which was assumed to be equal to that of asphalt (see **Asphalt**) and was first published by the Bureau of Mines in the *Petroleum Statement*, *Annual*, 1970.

**Special Naphthas**. EIA adopted the Bureau of Mines thermal conversion factor of 5.248 million Btu per barrel, which was assumed to be equal to that of the total gasoline (aviation and motor) factor and was first published in the *Petroleum Statement*. *Annual*. 1970.

**Still Gas**. EIA adopted the Bureau of Mines estimated thermal conversion factor of 6.000 million Btu per barrel, first published in the *Petroleum Statement, Annual, 1970*.

**Total Petroleum Exports**. Calculated annually by EIA as the average of the thermal conversion factors for crude oil and each petroleum product exported weighted by the quantities exported. See **Crude Oil Exports** and **Petroleum Products Exports**.

**Total Petroleum Imports**. Calculated annually by EIA as the average of the thermal conversion factors for each type of crude oil and petroleum product imported weighted by the quantities imported. See **Crude Oil Imports** and **Petroleum Products Imports**.

**Unfinished Oils**. EIA assumed the thermal conversion factor to be 5.825 million Btu per barrel or equal to that for distillate fuel oil (see **Distillate Fuel Oil**) and first published it in EIA's *Annual Report to Congress, Volume* 3, 1977.

**Unfractionated Stream**. EIA assumed the thermal conversion factor to be 5.418 million Btu per barrel or equal to that for plant condensate (see **Plant Condensate**) and first published it in EIA's *Annual Report to Congress, Volume* 2, 1981.

**Waxes**. EIA adopted the thermal conversion factor of 5.537 million Btu per barrel as estimated by the Bureau of Mines and first published in the *Petroleum Statement*, *Annual*, 1956.

#### **Approximate Heat Content of Biofuels**

**Biodiesel.** EIA estimated the thermal conversion factor for biodiesel to be 5.359 million Btu per barrel, or 17,253 Btu per pound.

**Biodiesel Feedstock.** EIA used soybean oil input to the production of biodiesel (million Btu soybean oil per barrel biodiesel) as the factor to estimate total biomass inputs to the production of biodiesel. EIA assumed that 7.65 pounds of soybean oil are needed to produce one gallon of biodiesel, and 5.433 million Btu of soybean oil are needed to produce one barrel of biodiesel. EIA also assumed that soybean oil has a gross heat content of 16,909 Btu per pound, or 5.483 million Btu per barrel.

**Ethanol (Undenatured).** EIA adopted the thermal conversion factor of 3.539 million Btu per barrel published in "Oxygenate Flexibility for Future Fuels," a paper presented by William J. Piel of the ARCO Chemical Company at the National Conference on Reformulated Gasolines and Clean Air Act Implementation, Washington, D.C., October 1991.

Fuel Ethanol (Denatured). • 1981–2008: EIA used the 2009 factor. • 2009 forward: Calculated by EIA as the annual quantity-weighted average of the thermal conversion factors for undenatured ethanol (3.539 million Btu per barrel), pentanes plus used as denaturant (4.620 million Btu per barrel), and conventional motor gasoline and motor gasoline blending components used as denaturant (5.253 million Btu per barrel). The quantity of ethanol consumed is from EIA's Petroleum Supply Annual (PSA) and Petroleum Supply Monthly (PSM), Table 1, data for renewable fuels and oxygenate plant net production of fuel ethanol. The quantity of pentanes plus used as denaturant is from PSA/PSM, Table 1, data for renewable fuels and oxygenate plant net production of pentanes plus, multiplied by -1. The quantity of conventional motor gasoline and motor gasoline blending components used as denaturant is from PSA/PSM, Table 1, data for renewable fuels and oxygenate plant net production of conventional motor gasoline and motor gasoline blending components, multiplied by -1.

**Fuel Ethanol Feedstock.** EIA used corn input to the production of undenatured ethanol (million Btu corn per barrel undenatured ethanol) as the annual factor to estimate total biomass inputs to the production of undenatured ethanol. U.S. Department of Agriculture observed ethanol yields (gallons undenatured ethanol per bushel of corn) were 2.5 in 1980, 2.666 in 1998, 2.68 in 2002, and 2.764 in 2009; EIA estimated the ethanol yields in other years. EIA also assumed that corn has a gross heat content of 0.392 million Btu per bushel.

# Approximate Heat Content of Natural Gas

**Natural Gas Consumption, Electric Power Sector.** Calculated annually by EIA by dividing the heat content of natural gas consumed by the electric power sector by the quantity consumed. Data are from Form EIA-923, "Power Plant Operations Report," and predecessor forms.

**Natural Gas Consumption, End-Use Sectors**. Calculated annually by EIA by dividing the heat content of natural gas consumed by the end-use sectors (residential, commercial, industrial, and transportation) by the quantity consumed. Data are from Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition."

Natural Gas Consumption, Total. • 1949–1962: EIA adopted the thermal conversion factor of 1,035 Btu per cubic foot as estimated by the Bureau of Mines and first published in the *Petroleum Statement*, *Annual*, 1956. • 1963–1979: EIA adopted the thermal conversion factor calculated annually by the American Gas Association (AGA) and published in *Gas Facts*, an AGA annual publication. • 1980 forward: Calculated annually by EIA by dividing the total heat content of natural gas consumed by the total quantity consumed.

Natural Gas Exports. • 1949–1972: Assumed by EIA to be equal to the thermal conversion factor for dry natural gas consumed (see Natural Gas Consumption, Total). • 1973 forward: Calculated annually by EIA by dividing the heat content of natural gas exported by the quantity exported. For 1973–1995, data are from Form FPC-14, "Annual Report for Importers and Exporters of Natural Gas." Beginning in 1996, data are from U.S. Department of Energy, Office of Fossil Energy, Natural Gas Imports and Exports.

Natural Gas Imports. • 1949–1972: Assumed by EIA to be equal to the thermal conversion factor for dry natural gas consumed (see Natural Gas Consumption, Total). • 1973 forward: Calculated annually by EIA by dividing the heat content of natural gas imported by the quantity imported. For 1973–1995, data are from Form FPC-14, "Annual Report for Importers and Exporters of Natural Gas." Beginning in 1996, data are from U.S. Department of Energy, Office of Fossil Energy, Natural Gas Imports and Exports.

**Natural Gas Production, Dry**. Assumed by EIA to be equal to the thermal conversion factor for dry natural gas consumed. See **Natural Gas Consumption, Total**.

Natural Gas Production, Marketed. Calculated annually by EIA by dividing the heat content of dry natural gas produced (see Natural Gas Production, Dry) and natural gas plant liquids produced (see Natural Gas Plant Liquids Production) by the total quantity of marketed natural gas produced.

# Approximate Heat Content of Coal and Coal Coke

**Coal Coke Imports and Exports**. EIA adopted the Bureau of Mines estimate of 24.800 million Btu per short ton.

**Coal Consumption, Electric Power Sector**. Calculated annually by EIA by dividing the heat content of coal consumed by the electric power sector by the quantity consumed. Data are from Form EIA-923, "Power Plant Operations Report," and predecessor forms.

#### Coal Consumption, Industrial Sector, Coke Plants.

• 1949–2012: Calculated annually by EIA based on the reported volatility (low, medium, or high) of coal received by coke plants. (For 2012, EIA used the following volatility factors, in million Btu per short ton: low volatile—26.680; medium volatile—27.506; and high volatile—25.652.) Data are from Form EIA-5, "Quarterly Coal Consumption and Quality Report—Coke Plants," and predecessor forms.
• 2013 forward: Calculated annually by EIA by dividing the heat content of coal received by coke plants by the quantity received. Data are from Form EIA-5, "Quarterly Coal Consumption and Quality Report—Coke Plants."

#### Coal Consumption, Industrial Sector, Other.

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

Coal Consumption, Residential and Commercial Sectors. • 1949–1999: Calculated annually by EIA by dividing the heat content of coal received by the residential and commercial sectors by the quantity received. Data are from Form EIA-6, "Coal Distribution Report," and predecessor forms. • 2000-2007: Calculated annually by EIA by dividing the heat content of coal consumed by commercial combined-heat-and-power (CHP) plants by the quantity consumed. Data are from Form EIA-923, "Power Plant Operations Report," and predecessor forms. forward: Calculated annually by EIA by dividing the heat content of coal received by commercial and institutional users by the quantity received. Data are from Form EIA-3, "Ouarterly Consumption Coal and **Ouality** Report—Manufacturing and Transformation/Processing Coal Plants and Commercial and Institutional Users."

**Coal Consumption, Total**. Calculated annually by EIA by dividing the total heat content of coal consumed by all sectors by the total quantity consumed.

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

Coal Imports. • 1949–1963: Calculated annually by EIA by dividing the heat content of coal imported by the quantity imported. Data are from U.S. Department of Commerce, Bureau of the Census, "Monthly Report IM 145," and predecessor forms. • 1964–2011: Assumed by EIA to be 25.000 million Btu per short ton. • 2012 forward: Calculated annually by EIA by dividing the heat content of coal imported (received) by the quantity imported (received). Data are from Form EIA-3, "Quarterly Coal Consumption and Quality Report—Manufacturing and Transformation/Processing Coal Plants and Commercial and Institutional Users"; Form EIA-5, "Quarterly Coal Consumption and Quality Report -Coke Plants"; and Form EIA-923, "Power Plant Operations Report."

Coal Production. • 1949–2011: Calculated annually by EIA by dividing the heat content of domestic coal (excluding waste coal) received by the quantity received. Data are from Form EIA-3, "Quarterly Coal Consumption and Quality Report—Manufacturing and Transformation/ Processing Coal Plants and Commercial and Institutional Users"; Form EIA-5, "Quarterly Coal Consumption and Quality Report—Coke Plants"; Form EIA-923, "Power Plant Operations Report"; and predecessor forms. forward: Calculated annually by EIA by dividing the heat content of domestic coal (excluding waste coal) received and exported by the quantity received and exported. Data are from Form EIA-3, "Quarterly Coal Consumption and **Ouality** Report—Manufacturing Transformation/Processing Coal Plants and Commercial and Institutional Users"; Form EIA-5, "Quarterly Coal Consumption and Quality Report-Coke Plants"; Form EIA-923, "Power Plant Operations Report"; U.S. Department of Commerce, Bureau of the Census, "Monthly Report EM 545"; and predecessor forms.

**Waste Coal Supplied**. • 1989–2000: Calculated annually by EIA by dividing the heat content of waste coal consumed by the quantity consumed. Data are from Form EIA-860B, "Annual Electric Generator Report—Nonutility," and

predecessor form. • 2001 forward: Calculated by EIA by dividing the heat content of waste coal received (or consumed) by the quantity received (or consumed). Receipts data are from Form EIA-3, "Quarterly Coal Consumption and Quality Report—Manufacturing and Transformation/Processing Coal Plants and Commercial and Institutional Users," and predecessor form. Consumption data are from Form EIA-923, "Power Plant Operations Report," and predecessor forms.

#### **Approximate Heat Rates for Electricity**

Electricity Net Generation, Coal. • 2001 forward: Calculated annually by EIA by using fuel consumption and net generation data reported on Form EIA-923, "Power Plant Operations Report," and predecessor forms. The computation includes data for all electric utilities and electricity-only independent power producers using anthracite, bituminous coal, subbituminous coal, lignite, and beginning in 2002, waste coal and coal synfuel.

Electricity Net Generation, Natural Gas. • 2001 forward: Calculated annually by EIA by using fuel consumption and net generation data reported on Form EIA-923, "Power Plant Operations Report," and predecessor forms. The computation includes data for all electric utilities and electricity-only independent power producers using natural gas and supplemental gaseous fuels.

Electricity Net Generation, Noncombustible Renewable Energy. There is no generally accepted practice for measuring the thermal conversion rates for power plants that generate electricity from hydro, geothermal, solar thermal, photovoltaic, and wind energy sources. Therefore, EIA calculates a rate factor that is equal to the annual average heat rate factor for fossil-fueled power plants in the United States (see "Electricity Net Generation, Total Fossil Fuels"). By using that factor it is possible to evaluate fossil fuel requirements for replacing those sources during periods of interruption, such as droughts.

Electricity Net Generation, Nuclear. • 1957–1984: Calculated annually by dividing the total heat content consumed in nuclear generating units by the total (net) electricity generated by nuclear generating units. The heat content and electricity generation were reported on Form FERC-1, "Annual Report of Major Electric Utilities, Licensees, and Others"; Form EIA-412, "Annual Report of Public Electric Utilities"; and predecessor forms. For 1982, the factors were published in EIA, Historical Plant Cost and Annual Production Expenses for Selected Electric Plants 1982, page 215. For 1983 and 1984, the factors were published in EIA, Electric Plant Cost and Power Production Expenses 1991, Table 13. • 1985 forward: Calculated annually by EIA by using the heat rate data reported on Form EIA-860, "Annual Electric Generator Report," and predecessor forms.

Electricity Net Generation, Petroleum. • 2001 forward: Calculated annually by EIA by using fuel consumption and net generation data reported on Form EIA-923, "Power Plant Operations Report," and predecessor forms. The computation includes data for all electric utilities and electricity-only independent power producers using distillate fuel oil, residual fuel oil, jet fuel, kerosene, petroleum coke, and waste oil.

#### Electricity Net Generation, Total Fossil Fuels.

• 1949–1955: The weighted annual average heat rate for fossil-fueled steam-electric power plants in the United States, as published by EIA in *Thermal-Electric Plant Construction Cost and Annual Production Expenses—1981* and *Steam-Electric Plant Construction Cost and Annual Production Expenses—1978.* • 1956–1988: The weighted annual average heat rate for fossil-fueled steam-electric

power plants in the United States, as published in EIA, Electric Plant Cost and Power Production Expenses 1991, Table 9. • 1989–2000: Calculated annually by EIA by using heat rate data reported on Form EIA-860, "Annual Electric Generator Report," and predecessor forms; and net generation data reported on Form EIA-759, "Monthly Power Plant Report." The computation includes data for all electric utility steam-electric plants using fossil fuels. • 2001 forward: Calculated annually by EIA by using fuel consumption and net generation data reported on Form EIA-923, "Power Plant Operations Report," and predecessor forms. The computation includes data for all electric utilities and electricityonly independent power producers using coal, petroleum, natural gas, and other gases (blast furnace gas, propane gas, and other manufactured and waste gases derived from fossil fuels).

## **Appendix B**

# Metric Conversion Factors, Metric Prefixes, and Other Physical Conversion Factors

Data presented in the *Monthly Energy Review* and in other U.S. Energy Information Administration publications are expressed predominately in units that historically have been used in the United States, such as British thermal units, barrels, cubic feet, and short tons. The metric conversion factors presented in Table B1 can be used to calculate the metric-unit equivalents of values expressed in U.S. Customary units. For example, 500 short tons are the equivalent of 453.6 metric tons (500 short tons x 0.9071847 metric tons/short ton = 453.6 metric tons).

In the metric system of weights and measures, the names of multiples and subdivisions of any unit may be derived by combining the name of the unit with prefixes, such as deka, hecto, and kilo, meaning, respectively, 10, 100, 1,000, and deci, centi, and milli, meaning, respectively, one-tenth, one-hundredth, and one-thousandth. Common metric prefixes can be found in Table B2.

The conversion factors presented in Table B3 can be used to calculate equivalents in various physical units commonly used in energy analyses. For example, 10 barrels are the equivalent of 420 U.S. gallons (10 barrels  $\times$  42 gallons/barrel = 420 gallons).

**Table B1. Metric Conversion Factors** 

Type of Unit	U.S. Unit		Equivalent in	Metric Units
Mass	1 short ton (2,000 lb)	=	0.907 184 7	metric tons (t)
	1 long ton	=	1.016 047	metric tons (t)
	1 pound (lb)	=	0.453 592 37ª	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)
Volume	1 barrel of oil (bbl)	=	0.158 987 3	cubic meters (m³)
	1 cubic yard (yd³)	=	0.764 555	cubic meters (m³)
	1 cubic foot (ft³)	=	0.028 316 85	cubic meters (m³)
	1 U.S. gallon (gal)	=	3.785 412	liters (L)
	1 ounce, fluid (fl oz)	=	29.573 53	milliliters (mL)
	1 cubic inch (in³)	=	16.387 06	milliliters (mL)
Length	1 mile (mi)	=	1.609 344ª	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)	=	2.54ª	centimeters (cm)
Area	1 acre	=	0.404 69	hectares (ha)
	1 square mile (mi <sup>2</sup> )	=	2.589 988	square kilometers (km²)
	1 square yard (yd²)	=	0.836 127 4	square meters (m²)
	1 square foot (ft²)	=	0.092 903 04°	square meters (m²)
	1 square inch (in²)	=	6.451 6ª	square centimeters (cm <sup>2</sup> )
Energy	1 British thermal unit (Btu) <sup>c</sup>	=	1,055.055 852 62ª	joules (J)
	1 calorie (cal)	=	4.186 8 <sup>a</sup>	joules (J)
	1 kilowatthour (kWh)	=	3.6ª	megajoules (MJ)
Temperature <sup>d</sup>	32 degrees Fahrenheit (°F)	=	O <sup>a</sup>	degrees Celsius (°C)
-	212 degrees Fahrenheit (°F)	=	100 <sup>a</sup>	degrees Celsius (°C)

<sup>&</sup>lt;sup>a</sup>Exact conversion.

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.

<sup>&</sup>lt;sup>b</sup>Calculated by the U.S. Energy Information Administration.

<sup>°</sup>The Btu used in this table is the International Table Btu adopted by the Fifth International Conference on Properties of Steam, London, 1956. °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.

**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	10-2	centi	С
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	Т	10 <sup>-12</sup>	pico	р
10 <sup>15</sup>	peta	Р	10 <sup>-15</sup>	femto	f
10 <sup>18</sup>	exa	Е	10 <sup>-18</sup>	atto	а
10 <sup>21</sup>	zetta	Z	10 <sup>-21</sup>	zepto	z
10 <sup>24</sup>	yotta	Υ	10 <sup>-24</sup>	yocto	у

Web Page: http://www.eia.gov/totalenergy/data/monthly/#appendices. Source: U.S. Department of Commerce, National Institute of Standards and Technology, *The International System of Units (SI)*, NIST Special Publication 330, 1991 Edition (Washington, DC, August 1991), p.10.

**Table B3. Other Physical Conversion Factors** 

Energy Source	Original Unit		Equivalent in Final Units				
Petroleum	1 barrel (bbl)	=	42ª	U.S. gallons (gal)			
Coal	1 short ton	=	2,000ª	pounds (lb)			
	1 long ton	=	2,240 <sup>a</sup>	pounds (lb)			
	1 metric ton (t)	=	1,000 <sup>a</sup>	kilograms (kg)			
Wood	1 cord (cd)	=	1.25 <sup>b</sup>	shorts tons			
	1 cord (cd)	=	128ª	cubic feet (ft3)			

<sup>&</sup>lt;sup>a</sup>Exact conversion.

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.

<sup>&</sup>lt;sup>b</sup>Calculated by the U.S. Energy Information Administration.

THIS PAGE INTENTIONALLY LEFT BLANK

# 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; CH(3)-(CH(2))<sub>n</sub>-OH (e.g., **methanol**, **ethanol**, and tertiary butyl alcohol). See **Fuel Ethanol**.

Alternative Fuel: Alternative fuels, for transportation applications, include the following: methanol; denatured ethanol, and other alcohols; fuel mixtures containing 85 percent or more by volume of methanol, denatured ethanol, and other alcohols with motor gasoline or other fuels; natural gas; liquefied petroleum gas (propane); hydrogen; coal-derived liquid fuels; fuels (other than alcohol) derived from biological materials (biofuels such as soy diesel fuel); electricity (including electricity from solar energy); and "... any other fuel the Secretary determines, by rule, is substantially not petroleum and would yield substantial energy security benefits and substantial environmental benefits." The term "alternative fuel" does not include alcohol or other blended portions of primarily petroleum-based fuels used as oxygenates or extenders, i.e., MTBE, ETBE, other ethers, and the 10-percent ethanol portion of gasohol.

Alternative-Fuel Vehicle (AFV): A vehicle designed to operate on an alternative fuel (e.g., compressed natural gas, methane blend, or electricity). The vehicle could be either a dedicated vehicle designed to operate exclusively on alternative fuel or a nondedicated vehicle designed to operate on alternative fuel and/or a traditional fuel.

Anthracite: The highest rank of coal; used primarily for residential and commercial space heating. It is a hard, brittle, and black lustrous coal, often referred to as hard coal, containing a high percentage of fixed carbon and a low percentage of volatile matter. The moisture content of fresh-mined anthracite generally is less than 15 percent. The heat content of anthracite ranges from 22 to 28 million Btu per short ton on a moist, mineral-matter-free basis. The heat content of anthracite coal consumed in the United States averages 25 million Btu per short ton, on the as-received basis (i.e., containing both inherent moisture and mineral matter). Note: Since the 1980's, anthracite refuse or mine waste has been used for steam-electric power generation. This fuel typically has a heat content of 15 million Btu per ton or less.

**Anthropogenic:** Made or generated by a human or caused by human activity. The term is used in the context of global **climate change** to refer to gaseous emissions that are the result of human activities, as well as other potentially climate-altering activities, such as deforestation.

**Asphalt:** A dark-brown-to-black cement-like material containing bitumens as the predominant constituents obtained by petroleum processing. The definition includes crude asphalt as well as the following finished products: cements, fluxes, the asphalt content of emulsions (exclusive of water), and petroleum distillates blended with asphalt to make cutback asphalts.

**ASTM:** The American Society for Testing and Materials.

**Aviation Gasoline Blending Components:** Naphthas that will be used for blending or compounding into finished aviation gasoline (e.g., straight run gasoline, alkylate, reformate, benzene, toluene, and xylene). Excludes oxygenates (alcohols, ethers), butane, and pentanes plus.

Aviation Gasoline, Finished: A complex mixture of relatively volatile hydrocarbons with or without small quantities of additives, blended to form a fuel suitable for use in aviation reciprocating engines. Fuel specifications are provided in ASTM Specification D 910 and Military Specification MIL-G-5572. *Note:* Data on blending components are not counted in data on finished aviation gasoline.

**Barrel (Petroleum):** A unit of volume equal to 42 U.S. Gallons.

**Base Gas:** The quantity of **natural gas** needed to maintain adequate reservoir pressures and deliverability rates throughout the withdrawal season. Base gas usually is not withdrawn and remains in the reservoir. All natural gas native to a depleted reservoir is included in the base gas volume.

**Biodiesel:** A fuel typically made from soybean, canola, or other vegetable oils; animal fats; and recycled grease. It can serve as a substitute for **petroleum**-derived **diesel fuel** or **distillate fuel oil**. For U.S. Energy Information Administration reporting, it is a fuel composed of mono-alkyl esters of long chain fatty acids derived from vegetable oils or animal fats, designated B100, and meeting the requirements of ASTM (American Society for Testing & Materials) D 6751.

**Biofuels:** Liquid fuels and blending components produced from **biomass** (plant) feedstocks, used primarily for transportation. See **Biodiesel** and **Fuel Ethanol**.

**Biogenic:** Produced by biological processes of living organisms. Note: EIA uses the term "biogenic" to refer only to organic nonfossil material of biological origin.

**Biomass:** Organic non-fossil material of biological origin constituting a renewable energy source. See **Biodiesel**,

Biofuels, Biomass Waste, Fuel Ethanol, and Wood and Wood-Derived Fuels.

Biomass Waste: Organic non-fossil material of biological origin that is a byproduct or a discarded product. "Biomass waste" includes municipal solid waste from biogenic sources, landfill gas, sludge waste, agricultural crop byproducts, straw, and other biomass solids, liquids, and gases; but excludes wood and wood-derived fuels (including black liquor), biofuels feedstock, biodiesel, and fuel ethanol. Note: EIA "biomass waste" data also include energy crops grown specifically for energy production, which would not normally constitute waste.

Bituminous Coal: A dense coal, usually black, sometimes dark brown, often with well-defined bands of bright and dull material, used primarily as fuel in steamelectric 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 ( $C_4H_{10}$ ). It is extracted from natural gas or refinery gas streams. It includes isobutane and normal butane and is designated in ASTM Specification D1835 and Gas Processors Association Specifications for commercial butane.

*Isobutane*: A normally gaseous branched-chain hydrocarbon. It is a colorless paraffinic gas that boils at a temperature of 10.9° F. It is extracted from natural gas or refinery gas streams.

*Normal Butane*: A normally gaseous straight-chain hydrocarbon. It is a colorless paraffinic gas that boils at a temperature of 31.1° F. It is extracted from natural gas or refinery gas streams.

**Butylene:** An olefinic hydrocarbon (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 abovementioned commercial establishments. Various EIA programs differ in sectoral coverage-for more information see <a href="http://www.eia.gov/neic/datadefinitions/Guideforwebcom.htm">http://www.eia.gov/neic/datadefinitions/Guideforwebcom.htm</a>. See End-Use Sectors and Energy-Use Sectors.

Completion: The installation of permanent equipment for the production of oil or gas. If a well is equipped to produce only oil or gas from one zone or reservoir, the definition of a well (classified as an oil well or gas well) and the definition of a completion are identical. However, if a well is equipped to produce oil and/or gas separately from more than one reservoir, a well is not synonymous with a completion.

Conventional Hydroelectric Power: Hydroelectric power generated from flowing water that is not created by hydroelectric pumped storage.

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

Conversion Factor: A factor for converting data between one unit of measurement and another (such as between **short tons** and **British thermal units**, or between **barrels** and gallons). (See http://www.eia.gov/totalenergy/data/monthly/#appendices for further information on conversion factors.) See **Btu Conversion Factor** and **Thermal Conversion Factor**.

**Cost, Insurance, Freight (CIF):** A sales transaction in which the seller pays for the transportation and insurance of the goods to the port of destination specified by the buyer.

Crude Oil: A mixture of hydrocarbons that exists in liquid phase in natural underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities. Depending upon the characteristics of the crude stream, it may also include: 1) small amounts of hydrocarbons that exist in gaseous phase in natural underground reservoirs but are liquid at atmospheric pressure after being recovered from oil well (casinghead) gas in lease separators and are subsequently commingled with the crude stream without being separately measured. Lease condensate recovered as a liquid from natural gas wells in lease or field separation facilities and later mixed into the crude stream is also included; 2) small amounts of nonhydrocarbons produced with the oil, such as sulfur and various metals; and 3) drip gases, and liquid hydrocarbons produced from tar sands, oil sands, gilsonite, and oil shale.

Liquids produced at natural gas processing plants are excluded. Crude oil is refined to produce a wide array of petroleum products, including heating oils; gasoline, diesel and jet fuels; lubricants; asphalt; ethane, propane, and butane; and many other products used for their energy or chemical content.

**Crude Oil F.O.B. Price:** The crude oil price actually charged at the oil-producing country's port of loading. Includes deductions for any rebates and discounts or additions of premiums, where applicable. It is the actual price paid with no adjustment for credit terms.

Crude Oil (Including Lease Condensate): A mixture of hydrocarbons that exists in liquid phase in underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities. Included are lease condensate and liquid hydrocarbons produced from tar sands, gilsonite, and oil shale. Drip gases are also included, but topped crude oil (residual oil) and other unfinished oils are excluded. Where identifiable, liquids produced at natural gas processing plants and mixed with crude oil are likewise excluded.

**Crude Oil Landed Cost:** The price of crude oil at the port of discharge, including charges associated with the purchase, transporting, and insuring of a cargo from the purchase point to the port of discharge. The cost does not include charges incurred at the discharge port (e.g., import tariffs or fees, wharfage charges, and demurrage).

**Crude Oil Refinery Input:** The total crude oil put into processing units at refineries.

**Crude Oil Stocks:** Stocks of crude oil and lease condensate held at refineries, in pipelines, at pipeline terminals, and on leases.

**Crude Oil Used Directly:** Crude oil consumed as fuel by crude oil pipelines and on crude oil leases.

**Crude Oil Well:** A well completed for the production of crude oil from one or more oil zones or reservoirs. Wells producing both crude oil and natural gas are classified as oil wells.

**Cubic Foot (Natural Gas):** A unit of volume equal to 1 cubic foot at a pressure base of 14.73 pounds standard per square inch absolute and a temperature base of 60° F.

**Degree-Day Normals:** Simple arithmetic averages of monthly or annual degree-days over a long period of time (usually the 30-year period 1961-1990). The averages may be simple degree-day normals or population-weighted degree-day normals.

**Degree-Days, Cooling (CDD):** A measure of how warm a location is over a period of time relative to a base temperature, most commonly specified as 65 degrees

Fahrenheit. The measure is computed for each day by subtracting the base temperature (65 degrees) from the average of the day's high and low temperatures, with negative values set equal to zero. Each day's cooling degree-days are summed to create a cooling degree-day measure for a specified reference period. Cooling degree-days are used in energy analysis as an indicator of air conditioning energy requirements or use.

Degree-Days, Heating (HDD): A measure of how cold a location is over a period of time relative to a base temperature, most commonly specified as 65 degrees Fahrenheit. The measure is computed for each day by subtracting the average of the day's high and low temperatures from the base temperature (65 degrees), with negative values set equal to zero. Each day's heating degree-days are summed to create a heating degree-day measure for a specified reference period. Heating degree-days are used in energy analysis as an indicator of space heating energy requirements or use.

Degree-Days, Population-Weighted: Heating or cooling degree-days weighted by the population of the area in which the degree-days are recorded. To compute state population-weighted degree-days, each state is divided into from one to nine climatically homogeneous divisions, which are assigned weights based on the ratio of the population of the division to the total population of the state. Degree-day readings for each division are multiplied by the corresponding population weight for each division and those products are then summed to arrive at the state population-weighted degree-day figure. To compute national population-weighted degree-days, the nation is divided into nine Census regions, each comprising from three to eight states, which are assigned weights based on the ratio of the population of the region to the total population of the nation. Degree-day readings for each region are multiplied by the corresponding population weight for each region and those products are then summed to arrive at the national population-weighted degree-day figure.

**Denaturant: Petroleum**, typically **pentanes plus** or **conventional motor gasoline**, added to **fuel ethanol** to make it unfit for human consumption. Fuel ethanol is denatured, usually prior to transport from the ethanol production facility, by adding 2 to 5 volume percent denaturant. See **Fuel Ethanol** and **Fuel Ethanol Minus Denaturant**.

**Design Electrical Rating, Net:** The nominal net electrical output of a nuclear unit as specified by the electric utility for the purpose of plant design.

**Development Well:** A well drilled within the proved area of an oil or gas reservoir to the depth of a stratigraphic horizon known to be productive.

**Diesel Fuel:** A fuel composed of **distillate fuel oils** obtained in petroleum refining operation or blends of such

distillate fuel oils with **residual fuel oil** used in motor vehicles. The boiling point and specific gravity are higher for diesel fuels than for gasoline.

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

**Distillate Fuel Oil:** A general classification for one of the **petroleum** fractions produced in conventional distillation operations. It includes **diesel fuels** and fuel oils. Products known as No. 1, No. 2, and No. 4 diesel fuel are used in on-highway diesel engines, such as those in trucks and automobiles, as well as off-highway engines, such as those in railroad locomotives and agricultural machinery. Products known as No. 1, No. 2, and No. 4 fuel oils are used primarily for space heating and **electricity generation**.

**Dry Hole:** An exploratory or development well found to be incapable of producing either oil or gas in sufficient quantities to justify completion as an oil or gas well.

Dry Natural Gas Production: See Natural Gas (Dry) Production.

**E85:** A fuel containing a mixture of 85 percent **ethanol** and 15 percent **motor gasoline**.

**Electric Power Plant:** A station containing prime movers, electric generators, and auxiliary equipment for converting mechanical, chemical, and/or fission energy into electric energy.

Electric Power Sector: An energy-consuming sector that consists of electricity-only and combined-heat-and-power (CHP) plants whose primary business is to sell electricity, or electricity and heat, to the public-i.e., North American Industry Classification System 22 plants. See also Combined-Heat-and-Power (CHP) Plant, Electricity-Only Plant, Electric Utility, and Independent Power Producer.

Electric Utility: Any entity that generates, transmits, or distributes electricity and recovers the cost of its generation, transmission or distribution assets and operations, either directly or indirectly, through cost-based rates set by a separate regulatory authority (e.g., State Public Service Commission), or is owned by a governmental unit or the consumers that the entity serves. Examples of these entities include: investor-owned entities, public power districts, public utility districts, municipalities, rural electric cooperatives, and state and federal agencies. Electric utilities may have Federal Energy Regulatory Commission approval for interconnection agreements and wholesale trade tariffs covering either cost-of-service and/or market-based rates under the authority of the Federal Power Act. See Electric Power Sector.

**Electrical System Energy Losses:** The amount of energy lost during generation, transmission, and distribution of electricity, including plant and unaccounted-for uses.

**Electricity:** A form of energy characterized by the presence and motion of elementary charged particles generated by friction, induction, or chemical change.

**Electricity Generation:** The process of producing electric energy, or the amount of electric energy produced by transforming other forms of energy, commonly expressed in **kilowatthours** (kWh) or megawatthours (Mwh).

**Electricity Generation, Gross:** The total amount of electric energy produced by generating units and measured at the generating terminal in **kilowatthours** (kWh) or megawatthours (MWh).

Electricity Generation, Net: The amount of gross electricity generation less station use (the electric energy consumed at the generating station(s) for station service or auxiliaries). *Note*: Electricity required for pumping at hydroelectric pumped-storage plants is regarded as electricity for station service and is deducted from gross generation.

Electricity-Only Plant: A plant designed to produce electricity only. See also Combined-Heat-and-Power (CHP) Plant.

**Electricity Retail Sales:** The amount of electricity sold to customers purchasing electricity for their own use and not for resale.

End-Use Sectors: The residential, commercial, industrial, and transportation sectors of the economy.

**Energy:** The capacity for doing work as measured by the capability of doing work (potential energy) or the conversion of this capability to motion (kinetic energy). Energy has several forms, some of which are easily convertible and can be changed to another form useful for work. Most of the world's convertible energy comes from fossil fuels that are burned to produce heat that is then used as a transfer medium to mechanical or other means in order to accomplish tasks. Electrical energy is usually measured in kilowatthours, while heat energy is usually measured in British thermal units.

**Energy Consumption:** The use of energy as a source of heat or power or as an input in the manufacturing process.

**Energy Service Provider:** An energy entity that provides service to a retail or end-use customer.

**Energy-Use Sectors:** A group of major energy-consuming components of U.S. society developed to measure and analyze energy use. The sectors most commonly referred to in EIA are: **residential**, **commercial**, **industrial**, **transportation**, and **electric power**.

**Ethane:** A normally gaseous straight-chain hydrocarbon (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 ( $C_2H_5OH$ ): A clear, colorless, flammable alcohol. Ethanol is typically produced biologically from biomass feedstocks such as agricultural crops and cellulosic residues from agricultural crops or wood. Ethanol can also be produced chemically from ethylene. See Biomass, Fuel Ethanol, and Fuel Ethanol Minus Denaturant.

**Ethylene:** An olefinic hydrocarbon (C2H4) recovered from refinery processes or petrochemical processes.

**Exploratory Well:** A well drilled to find and produce oil or gas in an area previously considered an unproductive area, to find a new reservoir in a known field (i.e., one previously found to be producing oil or gas in another reservoir), or to extend the limit of a known oil or gas reservoir.

**Exports:** Shipments of goods from within the 50 states and the District of Columbia to U.S. possessions and territories or to foreign countries.

**Federal Energy Administration (FEA):** A predecessor of the U.S. Energy Information Administration.

**Federal Energy Regulatory Commission (FERC):** The Federal agency with jurisdiction over interstate electricity sales, wholesale electric rates, hydroelectric licensing, natural gas pricing, oil pipeline rates, and gas pipeline certification. FERC is an independent regulatory agency within the U.S. Department of Energy and is the successor to the Federal Power Commission.

**Federal Power Commission (FPC):** The predecessor agency of the Federal Energy Regulatory Commission. The Federal Power Commission was created by an Act of Congress under the Federal Water Power Act on June 10, 1920. It was charged originally with regulating the electric power and natural gas industries. It was abolished on September 30, 1977, when the U.S. Department of Energy was created. Its functions were divided between the U.S. Department of Energy and the Federal Energy Regulatory Commission, an independent regulatory agency.

**First Purchase Price:** The price for domestic crude oil reported by the company that owns the crude oil the first time it is removed from the lease boundary.

**Flared Natural Gas: Natural gas** burned in flares on the base site or at gas processing plants.

**F.O.B.** (Free on Board): A sales transaction in which the seller makes the product available for pick up at a specified port or terminal at a specified price and the buyer pays for the subsequent transportation and insurance.

Footage Drilled: Total footage for wells in various categories, as reported for any specified period, includes (1) the deepest total depth (length of well bores) of all wells drilled from the surface, (2) the total of all bypassed footage drilled in connection with reported wells, and (3) all new footage drilled for directional sidetrack wells. Footage reported for directional sidetrack wells does not include footage in the common bore, which is reported as footage for the original well. In the case of old wells drilled deeper, the reported footage is that which was drilled below the total depth of the old well.

Former U.S.S.R.: See Union of Soviet Socialist Republics (U.S.S.R.).

Fossil Fuel: An energy source formed in the Earth's crust from decayed organic material, such as petroleum, coal, and natural gas.

**Fossil-Fueled Steam-Electric Power Plant:** An electricity generation plant in which the prime mover is a turbine rotated by high-pressure steam produced in a boiler by heat from burning fossil fuels.

Fuel Ethanol: Ethanol intended for fuel use. Fuel ethanol in the United States must be anhydrous (less than 1 percent water). Fuel ethanol is denatured (made unfit for human consumption), usually prior to transport from the ethanol production facility, by adding 2 to 5 volume percent petroleum, typically pentanes plus or conventional motor gasoline. Fuel ethanol is used principally for blending in low concentrations with motor gasoline as an oxygenate or octane enhancer. In high concentrations, it is used to fuel alternative-fuel vehicles specially designed for its use. See Alternative-Fuel Vehicle, Denaturant, E85, Ethanol, Fuel Ethanol Minus Denaturant, and Oxygenates.

Fuel Ethanol Minus Denaturant: An unobserved quantity of anhydrous, biomass-derived, undenatured ethanol for fuel use. The quantity is obtained by subtracting the estimated denaturant volume from fuel ethanol volume. Fuel ethanol minus denaturant is counted as renewable energy, while denaturant is counted as nonrenewable fuel. See Denaturant, Ethanol, Fuel Ethanol, Nonrenewable Fuels, Oxygenates, and Renewable Energy.

**Full-Power Operation:** Operation of a nuclear generating unit at 100 percent of its design capacity. Full-power operation precedes commercial operation.

**Gasohol:** A blend of finished motor gasoline containing alcohol (generally **ethanol** but sometimes methanol) at a concentration between 5.7 percent and 10 percent by volume. See **Motor Gasoline**, **Oxygenated**.

Gas Well: A well completed for the production of natural gas from one or more gas zones or reservoirs. (Wells

producing both **crude oil** and natural gas are classified as oil wells.)

**Geothermal Energy:** Hot water or steam extracted from geothermal reservoirs in the earth's crust and used for geothermal heat pumps, water heating, or electricity generation.

Global Warming: An increase in the near-surface temperature of the Earth. Global warming has occurred in the distant past as the result of natural influences, but the term is today most often used to refer to the warming some scientists predict will occur as a result of increased anthropogenic emissions of greenhouse gases. See Climate Change.

Global Warming Potential (GWP): An index used to compare the relative radiative forcing of different gases without directly calculating the changes in atmospheric concentrations. GWPs are calculated as the ratio of the radiative forcing that would result from the emission of one kilogram of a greenhouse gas to that from the emission of one kilogram of carbon dioxide over a fixed period of time, such as 100 years.

**Greenhouse Gases:** Those gases, such as water vapor, **carbon dioxide**, nitrous oxide, **methane**, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulfur hexafluoride, that are transparent to solar (short-wave) radiation but opaque to long-wave (infrared) radiation, thus preventing long-wave radiant energy from leaving Earth's atmosphere. The net effect is a trapping of absorbed radiation and a tendency to warm the planet's surface.

Gross Domestic Product (GDP): The total value of goods and services produced by labor and property located in the United States. As long as the labor and property are located in the United States, the supplier (that is, the workers and, for property, the owners) may be either U.S. residents or residents of foreign countries.

**GT/IC:** Gas turbine and internal combustion plants.

Heat Content: The amount of heat energy available to be released by the transformation or use of a specified physical unit of an energy form (e.g., a ton of coal, a barrel of oil, a 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 abovementioned 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:** Light liquid **hydrocarbons** recovered from lease separators or field facilities at associated and non-associated **natural gas** wells. Mostly pentanes and heavier hydrocarbons. Normally enters the **crude oil** stream after production.

**Lignite:** The lowest rank of **coal**, often referred to as brown coal, used almost exclusively as fuel for steam-electric power generation. It is brownish-black and has a high inherent moisture content, sometimes as high as 45 percent. The heat content of lignite ranges from 9 to 17 million **Btu** per **short ton** on a moist, mineral-matter-free basis. The heat content of lignite consumed in the United States averages 13 million Btu per short ton, on the as-received basis (i.e., containing both inherent moisture and mineral matter).

**Liquefied Natural Gas (LNG): Natural gas** (primarily **methane**) that has been liquefied by reducing its temperature to -260° F at atmospheric pressure.

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

**Low-Power Testing:** The period of time between a nuclear generating unit's initial fuel loading date and the issuance of its operating (full-power) license. The maximum level of operation during that period is 5 percent of the unit's design thermal rating.

Lubricants: Substances used to reduce friction between bearing surfaces or as process materials either incorporated into other materials used as processing aids in the manufacturing of other products or as carriers of other materials. Petroleum lubricants may be produced either from distillates or residues. Other substances may be added to impart or improve certain required properties. Excluded are byproducts of lubricating oil refining, such as aromatic extracts derived from solvent extraction or tars derived from deasphalting. Included are all grades of lubricating oils from spindle oil to cylinder oil and those used in greases. Lubricant categories are paraffinic and naphthenic.

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

**Methane:** A colorless, flammable, odorless, **hydrocarbon** gas (CH4) that is the principal constituent of **natural gas**. It is also an important source of **hydrogen** in various industrial processes.

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

Motor Gasoline, Finished: A complex mixture of relatively volatile hydrocarbons with or without small quantities of additives, blended to form a fuel suitable for use in sparkignition. Motor gasoline, as defined in ASTM Specification D-4814 or Federal Specification VV-G-1690C, is characterized as having a boiling range of 122°F to 158°F at the 10-percent recovery point to 365°F to 374°F at the 90-percent recovery point. "Motor gasoline" includes conventional gasoline, all types of oxygenated gasoline including gasohol, and reformulated gasoline, but excludes aviation gasoline. Note: Volumetric data on blending components, as well as oxygenates, are not counted in data on finished motor gasoline until the blending components are blended into the gasoline.

Motor Gasoline Grades: The classification of gasoline by octane ratings. Each type of gasoline (conventional, oxygenated, and reformulated) is classified by three grades: regular, midgrade, and premium. *Note*: Gasoline sales are reported by grade in accordance with their classification at the time of sale. In general, automotive octane requirements are lower at high altitudes. Therefore, in some areas of the United States, such as the Rocky Mountain States, the octane ratings for the gasoline grades may be 2 or more octane points lower.

Regular Gasoline: Gasoline having an antiknock index, i.e., octane rating, greater than or equal to 85 and less than 88. Note: Octane requirements may vary by altitude. See **Motor Gasoline Grades**.

Midgrade Gasoline: Gasoline having an antiknock index, i.e., octane rating, greater than or equal to 88 and less than or equal to 90. Note: Octane requirements may vary by altitude. See **Motor Gasoline Grades**.

*Premium Gasoline*: Gasoline having an antiknock index, i.e., octane rating, greater than 90. Note: Octane requirements may vary by altitude. See **Motor Gasoline Grades**.

Motor Gasoline, Oxygenated: Finished motor gasoline, other than reformulated gasoline, having an oxygen content of 2.7 percent or higher by weight and required by the U.S. Environmental Protection Agency (EPA) to be sold in areas designated by EPA as carbon monoxide (CO) nonattainment areas. Note: Oxygenated gasoline excludes oxygenated fuels program reformulated gasoline (OPRG) and reformulated gasoline blendstock for oxygenate blending (RBOB). Data on gasohol that has at least 2.7 percent oxygen, by weight, and is intended for sale inside CO nonattainment areas are included in data on oxygenated gasoline. Other data on gasohol are included in data on conventional gasoline.

Motor Gasoline, Reformulated: Finished motor gasoline formulated for use in motor vehicles, the composition and properties of which meet the requirements of the reformulated gasoline regulations promulgated by the U.S. Environmental Protection Agency under Section 211(k) of the Clean Air Act. Note: This category includes oxygenated fuels program reformulated gasoline (OPRG) but excludes reformulated gasoline blendstock for oxygenate blending (RBOB).

Motor Gasoline Retail Prices: Motor gasoline prices calculated each month by the Bureau of Labor Statistics (BLS) in conjunction with the construction of the Consumer Price Index (CPI). Those prices are collected in 85 urban areas selected to represent all urban consumers-about 80 percent of the total U.S. population. The service stations are selected initially, and on a replacement basis, in such a way that they represent the purchasing habits of the CPI population. Service stations in the current sample include those

providing all types of service (i.e., full-, mini-, and self-service.

**Motor Gasoline (Total):** For stock level data, a sum including finished motor gasoline stocks plus stocks of motor gasoline blending components but excluding stocks of oxygenates.

MTBE: See Methyl Tertiary Butyl Ether.

NAICS (North American Industry Classification System): A coding system developed jointly by the United States, Canada, and Mexico to classify businesses and industries according to the type of economic activity in which they are engaged. NAICS replaces the Standard Industrial Classification (SIC) codes. For additional information on NAICS, go to http://www.census.gov/eos/www/naics/.

**Naphtha:** A generic term applied to a petroleum fraction with an approximate boiling range between 122 and 400° F.

**Natural Gas:** A gaseous mixture of **hydrocarbon** compounds, primarily **methane**, used as a fuel for **electricity generation** and in a variety of ways in buildings, and as raw material input and fuel for industrial processes.

**Natural Gas, Dry: Natural gas** which remains after: 1) the liquefiable **hydrocarbon** portion has been removed from the gas stream (i.e., gas after lease, field, and/or plant separation); and 2) any volumes of **nonhydrocarbon gases** have been removed where they occur in sufficient quantity to render the gas unmarketable. *Note:* Dry natural gas is also known as consumer-grade natural gas. The parameters for measurement are cubic feet at 60 degrees Fahrenheit and 14.73 pounds per square inch absolute.

Natural Gas (Dry) Production: The process of producing consumer-grade natural gas. Natural gas withdrawn from reservoirs is reduced by volumes used at the production (lease) site and by processing losses. Volumes used at the production site include 1) the volume returned to reservoirs in cycling, **repressuring** of oil reservoirs, and conservation operations; and 2) vented natural gas and flared natural gas. Processing losses include 1) nonhydrocarbon gases (e.g., water vapor, carbon dioxide, helium, hydrogen sulfide, and nitrogen) removed from the gas stream; and 2) gas converted to liquid form, such as lease condensate and natural gas plant liquids. Volumes of dry gas withdrawn from gas storage reservoirs are not considered part of production. Dry natural gas production equals natural gas marketed production less natural gas plant liquids production.

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

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

Natural Gas Wellhead Price: The wellhead price of natural gas is calculated by dividing the total reported value at the wellhead by the total quantity produced as reported by the appropriate agencies of individual producing states and the U.S. Minerals Management Service. The price includes all costs prior to shipment from the lease, including gathering and compression costs, in addition to state production, severance, and similar charges.

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

**Net Summer Capacity:** The maximum output, commonly expressed in **kilowatts** (kW) or megawatts (MW), that generating equipment can supply to system load, as demonstrated by a multi-hour test, at the time of summer peak demand (period of June 1 through September 30). This output reflects a reduction in capacity due to electricity use for station service or auxiliaries.

**Neutral Zone:** A 6,200 square-mile area shared equally between Kuwait and Saudi Arabia under a 1992 agreement. The Neutral Zone contains an estimated 5 billion barrels of oil and 8 trillion cubic feet of natural gas.

**Nominal Dollars:** A measure used to express **nominal price**.

**Nominal Price:** The price paid for a product or service at the time of the transaction. Nominal prices are those that have not been adjusted to remove the effect of changes in the purchasing power of the dollar; they reflect buying power in the year in which the transaction occurred.

**Non-Biomass Waste:** Material of non-biological origin that is a byproduct or a discarded product. "Non-biomass waste" includes municipal solid waste from non-biogenic sources, such as plastics, and tire-derived fuels.

**Nonhydrocarbon Gases:** Typical nonhydrocarbon gases that may be present in reservoir **natural gas** are **carbon dioxide**, helium, hydrogen sulfide, and nitrogen.

**Nonrenewable Fuels:** Fuels that cannot be easily made or "renewed," such as **crude oil**, **natural gas**, and **coal**.

**Nuclear Electric Power (Nuclear Power):** Electricity generated by the use of the thermal energy released from the fission of nuclear fuel in a reactor.

**Nuclear Electric Power Plant:** A single-unit or multiunit facility in which heat produced in one or more reactors by the fissioning of nuclear fuel is used to drive one or more steam turbines.

**Nuclear Reactor:** An apparatus in which a nuclear fission chain reaction can be initiated, controlled, and sustained at a specific rate. A reactor includes fuel (fissionable material), moderating material to control the rate of fission, a heavy-walled pressure vessel to house reactor components, shielding to protect personnel, a system to conduct heat away from the reactor, and instrumentation for monitoring and controlling the reactor's systems.

## **OECD:** See Organization for Economic Cooperation and Development.

**Offshore:** That geographic area that lies seaward of the coastline. In general, the coastline is the line of ordinary low water along with that portion of the coast that is in direct contact with the open sea or the line marking the seaward limit of inland water.

Oil: See Crude Oil.

## **OPEC:** See **Organization of the Petroleum Exporting Countries.**

**Operable Unit (Nuclear):** In the United States, a nuclear generating unit that has completed low-power testing and been issued a full-power operating license by the Nuclear Regulatory Commission, or equivalent permission to operate.

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

**Organization of the Petroleum Exporting Countries (OPEC):** An intergovernmental organization whose stated objective is to "coordinate and unify the petroleum policies of member countries." It was created at the Baghdad Conference on September 10–14, 1960. Current members (with years of membership) include Algeria (1969–present), Angola (2007–present), Ecuador (1973–1992 and 2007–present), Iran (1960–present), Iraq (1960–present),

Kuwait (1960–present), Libya (1962–present), Nigeria (1971–present), Qatar (1961–present), Saudi Arabia (1960–present), United Arab Emirates (1967–present), and Venezuela (1960–present). Countries no longer members of OPEC include Gabon (1975–1994) and Indonesia (1962–2008).

Oxygenates: Substances which, when added to gasoline, increase the amount of oxygen in that gasoline blend. Ethanol, Methyl Tertiary Butyl Ether (MTBE), Ethyl Tertiary Butyl Ether (ETBE), and methanol are common oxygenates.

**PAD Districts:** Petroleum Administration for Defense Districts. Geographic aggregations of the 50 states and the District of Columbia into five districts for the Petroleum Administration for Defense in 1950. The districts were originally instituted for economic and geographic reasons as Petroleum Administration for War (PAW) Districts, which were established in 1942.

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

**Petrochemical Feedstocks:** Chemical feedstocks derived from petroleum principally for the manufacture of chemicals, synthetic rubber, and a variety of plastics.

**Petroleum:** A broadly defined class of liquid hydrocarbon mixtures. Included are crude oil, lease condensate, unfinished oils, refined products obtained from the processing of crude oil, and natural gas plant liquids. Note: Volumes of finished petroleum products include nonhydrocarbon compounds, such as additives and detergents, after they have been blended into the products.

Petroleum Coke: See Coke, Petroleum.

## **Petroleum Consumption:** See **Products Supplied** (Petroleum).

**Petroleum Imports:** Imports of petroleum into the 50 states and the District of Columbia from foreign countries and from Puerto Rico, the Virgin Islands, and other U.S. territories and possessions. Included are imports for the Strategic Petroleum Reserve and withdrawals from bonded warehouses for onshore consumption, offshore bunker use, and military use. Excluded are receipts of foreign petroleum into bonded warehouses and into U.S. territories and U.S. Foreign Trade Zones.

**Petroleum Products:** Products obtained from the processing of crude oil (including lease condensate), natural gas, and other hydrocarbon compounds. Petroleum products include unfinished oils, liquefied petroleum gases, pentanes plus, aviation gasoline, motor gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, distillate fuel oil,

residual fuel oil, petrochemical feedstocks, special naphthas, lubricants, waxes, petroleum coke, asphalt, road oil, still gas, and miscellaneous products.

**Petroleum Stocks, Primary:** For individual products, quantities that are held at refineries, in pipelines, and at bulk terminals that have a capacity of 50,000 barrels or more, or that are in transit thereto. Stocks held by product retailers and resellers, as well as tertiary stocks held at the point of consumption, are excluded. Stocks of individual products held at gas processing plants are excluded from individual product estimates but are included in other oils estimates and total.

**Photovoltaic Energy:** Direct-current electricity generated from sunlight through solid-state semiconductor devices that have no moving parts.

**Pipeline Fuel:** Gas consumed in the operation of pipelines, primarily in compressors.

**Plant Condensate:** One of the natural gas liquids, mostly pentanes and heavier hydrocarbons, recovered and separated as liquid at gas inlet separators or scrubbers in processing plants.

**Primary Energy:** Energy in the form that it is first accounted for in a statistical energy balance, before any transformation to secondary or tertiary forms of energy. For example, **coal** can be converted to synthetic gas, which can be converted to **electricity**; in this example, coal is primary energy, synthetic gas is secondary energy, and electricity is tertiary energy. See **Primary Energy Production** and **Primary Energy Consumption**.

**Primary Energy Consumption:** Consumption of primary energy. (Energy sources that are produced from other energy sources-e.g., coal coke from coal-are included in primary energy consumption only if their energy content has not already been included as part of the original energy source. Thus, U.S. primary energy consumption does include net imports of coal coke, but not the coal coke produced from domestic coal.) The U.S. Energy Information Administration includes the following in U.S. primary energy consumption: coal consumption; coal coke net imports; petroleum consumption (petroleum products supplied, including natural gas plant liquids and crude oil burned as fuel); dry natural gas-excluding supplemental gaseous fuels—consumption; nuclear electricity net generation (converted to **Btu** using the nuclear plants **heat rate**): hydroelectricity conventional net generation (converted to Btu using the fossil-fueled plants heat rate); geothermal electricity net generation (converted to Btu using the fossil-fueled plants heat rate), and geothermal heat pump energy and geothermal direct use energy; solar thermal and photovoltaic electricity net generation (converted to Btu using the fossil-fueled

plants heat rate), and solar thermal direct use energy; wind electricity net generation (converted to Btu using the fossil-fueled plants heat rate); wood and wood-derived fuels consumption; biomass waste consumption; fuel ethanol and biodiesel consumption; losses and co-products from the production of fuel ethanol and biodiesel; and electricity net imports (converted to Btu using the electricity heat content of 3,412 Btu per kilowatthour). See Total Energy Consumption.

Primary Energy Production: Production of primary energy. The U.S. Energy Information Administration includes the following in U.S. primary energy production: coal production, waste coal supplied, and coal refuse recovery; crude oil and lease condensate production; natural gas plant liquids production; dry natural gas-excluding supplemental gaseous fuels-production; nuclear electricity net generation (converted to Btu using the nuclear plants heat rate); conventional hydroelectricity net generation (converted to Btu using the fossil-fueled plants heat rate); geothermal electricity net generation (converted to Btu using the fossil-fueled plants heat rate), and geothermal heat pump energy and geothermal direct use energy; solar thermal and photovoltaic electricity net generation (converted to Btu using the fossil-fueled plants heat rate), and solar thermal direct use energy; wind electricity net generation (converted to Btu using the fossil-fueled plants heat rate); wood and wood-derived fuels consumption; biomass waste consumption; and biofuels feedstock.

**Prime Mover:** The engine, turbine, water wheel, or similar machine that drives an electric generator; or, for reporting purposes, a device that converts energy to electricity directly.

**Products Supplied (Petroleum):** Approximately represents consumption of petroleum products because it measures the disappearance of these products from primary sources, i.e., refineries, natural gas-processing plants, blending plants, pipelines, and bulk terminals. In general, product supplied of each product in any given period is computed as follows: field production, plus refinery production, plus imports, plus unaccounted-for crude oil (plus net receipts when calculated on a PAD District basis) minus stock change, minus crude oil losses, minus refinery inputs, and minus exports.

**Propane:** A normally gaseous straight-chain hydrocarbon (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 hydrolectric 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, still gas (refinery gas), biomass gas, air injected for Btu stabilization, and manufactured gas commingled and distributed with natural gas.

Synthetic Natural Gas (SNG): (Also referred to as substitute natural gas) A manufactured product, chemically similar in most respects to **natural gas**, resulting from the conversion or reforming of **hydrocarbons** that may easily be substituted for or interchanged with pipeline-quality natural gas.

Thermal Conversion Factor: A factor for converting data between physical units of measure (such as barrels, cubic feet, or short tons) and thermal units of measure (such as British thermal units, calories, or joules); or for

converting data between different thermal units of measure. See **Btu Conversion Factor**.

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

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

http://www.eia.gov/neic/datadefinitions/Guideforwebtrans.htm See End-Use Sectors and Energy-Use Sectors.

**Underground Storage:** The storage of **natural gas** in underground reservoirs at a different location from which it was produced.

**Unfinished Oils:** All oils requiring further refinery processing except those requiring only mechanical blending. Includes naphthas and lighter oils, kerosene and light gas oils, heavy gas oils, and residuum.

**Unfractionated Stream:** Mixtures of unsegregated natural gas liquid components, excluding those in plant condensate. This product is extracted from natural gas.

Union of Soviet Socialist Republics (U.S.S.R.): A political entity that consisted of 15 constituent republics: Armenia, Azerbaijan, Belarus, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan. The U.S.S.R. ceased to exist as of December 31, 1991.

United States: The 50 states and the District of Columbia. Note: The United States has varying degrees of jurisdiction over a number of territories and other political entities outside the 50 states and the District of Columbia, including Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, Johnston Atoll, Midway Islands, Wake Island, and the Northern Mariana Islands. EIA data programs may include data from some or all of these areas in U.S. totals. For these programs, data products will contain notes explaining the extent of geographic coverage included under the term "United States."

**Useful Thermal Output:** The thermal energy made available in a combined-heat-and-power system for use in any industrial or commercial process, heating or cooling application, or delivered to other end users, i.e., total thermal energy made available for processes and applications other than electrical generation.

U.S.S.R.: See Union of Soviet Socialist Republics (U.S.S.R.).

**Vented Natural Gas: Natural gas** released into the air on the production site or at processing plants.

**Vessel Bunkering:** Includes sales for the fueling of commercial or private boats, such as pleasure craft, fishing boats, tugboats, and ocean-going vessels, including vessels operated by oil companies. Excluded are volumes sold to the U.S. Armed Forces.

**Waste Coal:** Usable material that is a byproduct of previous **coal** processing operations. Waste coal is usually composed of mixed coal, soil, and rock (mine waste). Most waste coal is burned as-is in unconventional fluidized-bed combustors. For some uses, waste coal may be partially cleaned by removing some extraneous noncombustible constituents. Examples of waste coal include fine coal, coal obtained from a refuse bank or slurry dam, anthracite culm, bituminous gob, and lignite waste.

Waste: See Biomass Waste and Non-Biomass Waste.

**Watt (W):** The unit of electrical power equal to one ampere under a pressure of one volt. A watt is equal to 1/746 horsepower.

Watthour (Wh): The electrical energy unit of measure equal to one watt of power supplied to, or taken from, an electric circuit steadily for one hour.

**Waxes:** Solid or semisolid material derived from petroleum distillates or residues. Waxes are light-colored, more or less translucent crystalline masses, slightly greasy to the touch, consisting of a mixture of solid hydrocarbons in which the paraffin series predominates. Included are all marketable waxes, whether crude scale or fully refined. Waxes are used primarily as industrial coating for surface protection.

Wellhead Price: The value of crude oil or natural gas at the mouth of the well.

**Wind Energy:** Kinetic energy present in wind motion that can be converted to mechanical energy for driving pumps, mills, and electric power generators.

Wood and Wood-Derived Fuels: Wood and products derived from wood that are used as fuel, including round wood (cord wood), limb wood, wood chips, bark, sawdust, forest residues, charcoal, paper pellets, railroad ties, utility poles, black liquor, red liquor, sludge wood, spent sulfite liquor, and other wood-based solids and liquids.

Working Gas: The quantity of natural gas in the reservoir that is in addition to the cushion or base gas. It may or may not be completely withdrawn during any particular withdrawal season. Conditions permitting, the total working capacity could be used more than once during any season. Volumes of working gas are reported in thousand cubic feet at standard temperature and pressure.