

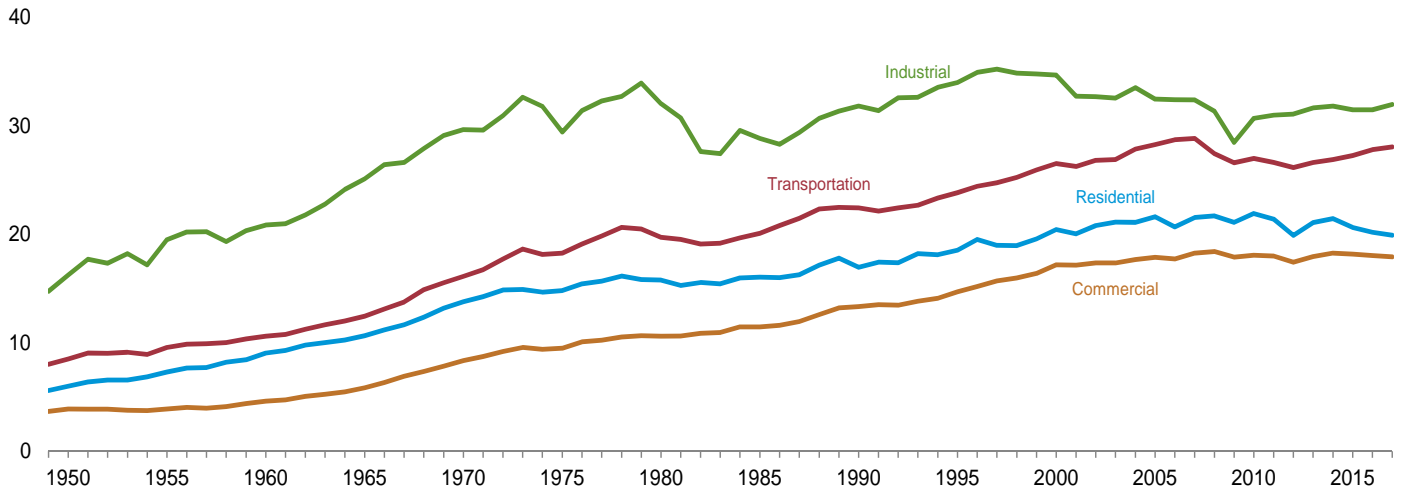
## **2. Energy Consumption By Sector**

---

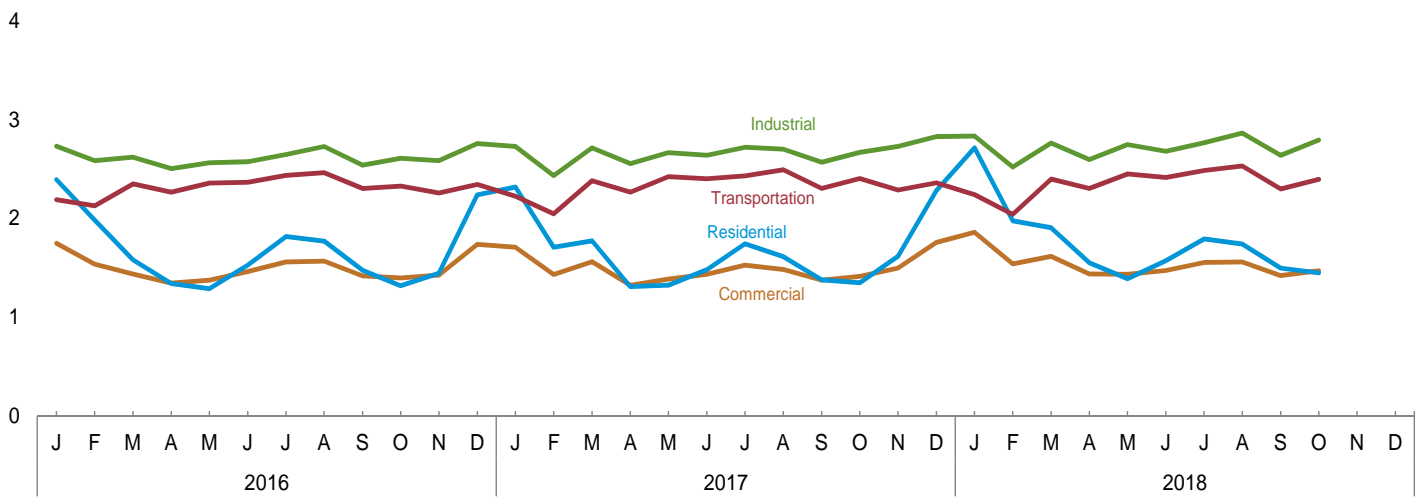
**Figure 2.1 Energy Consumption by Sector**

(Quadrillion Btu)

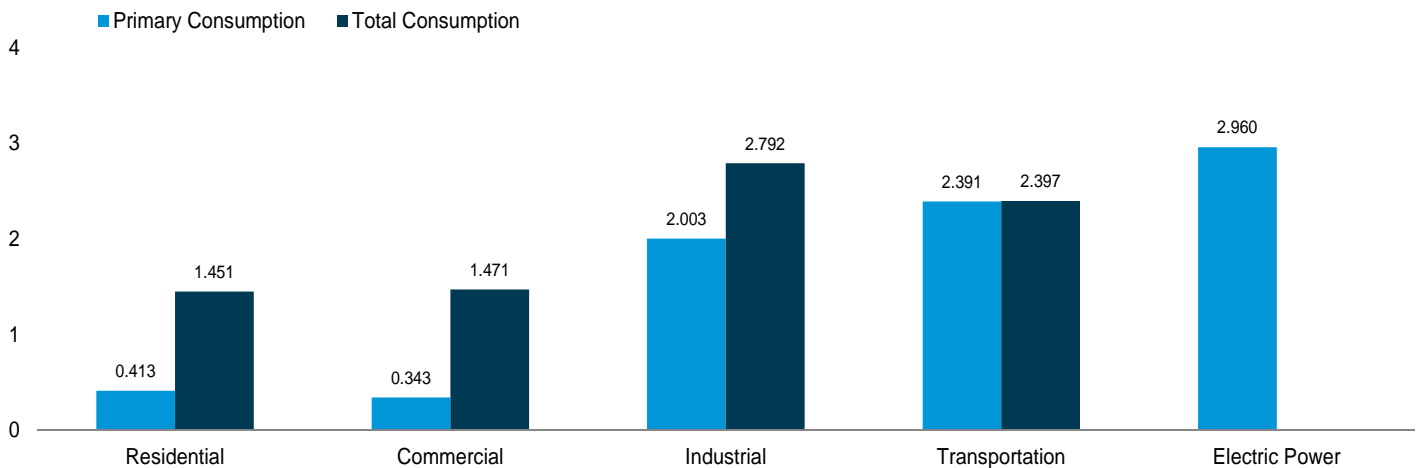
Total Consumption by End-Use Sector, 1949–2017



Total Consumption by End-Use Sector, Monthly



By Sector, October 2018



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

Source: Table 2.1.

**Table 2.1 Energy Consumption by Sector**  
(Trillion Btu)

	End-Use Sectors								Electric Power Sector <sup>c,d</sup>	Balancing Item <sup>g</sup>	Primary Total <sup>h</sup>
	Residential		Commercial <sup>a</sup>		Industrial <sup>b</sup>		Transportation				
	Primary <sup>e</sup>	Total <sup>f</sup>	Primary <sup>e</sup>	Total <sup>f</sup>	Primary <sup>e</sup>	Total <sup>f</sup>	Primary <sup>e</sup>	Total <sup>f</sup>			
<b>1950 Total</b> .....	4,829	5,989	2,834	3,893	13,890	16,241	8,383	8,492	4,679	(s)	34,616
1955 Total .....	5,608	7,278	2,561	3,895	16,103	19,485	9,474	9,550	6,461	(s)	40,208
1960 Total .....	6,651	9,039	2,723	4,609	16,996	20,842	10,560	10,596	8,158	(s)	45,086
1965 Total .....	7,279	10,639	3,177	5,845	20,148	25,098	12,399	12,432	11,012	(s)	54,015
1970 Total .....	8,322	13,766	4,237	8,346	22,964	29,628	16,062	16,098	16,253	(s)	67,838
1975 Total .....	7,990	14,813	4,059	9,492	21,434	29,413	18,210	18,245	20,270	1	71,965
1980 Total .....	7,439	15,753	4,105	10,578	22,595	32,039	19,659	19,697	24,269	-1	78,067
1985 Total .....	7,148	16,041	3,732	11,451	19,443	28,816	20,041	20,088	26,032	-4	76,392
1990 Total .....	6,552	16,940	3,893	13,317	21,172	31,802	22,366	22,419	30,495	7	84,485
1995 Total .....	6,934	18,517	4,100	14,690	22,718	33,969	23,757	23,812	33,479	3	90,991
2000 Total .....	7,156	20,421	4,278	17,175	22,823	34,662	26,456	26,516	38,062	2	98,776
2001 Total .....	6,864	20,038	4,084	17,137	21,792	32,718	26,179	26,242	37,215	-6	96,129
2002 Total .....	6,907	20,786	4,132	17,346	21,797	32,660	26,747	26,808	38,016	5	97,605
2003 Total .....	7,232	21,119	4,298	17,346	21,533	32,553	26,807	26,881	38,028	-1	97,898
2004 Total .....	6,987	21,081	4,232	17,655	22,411	33,515	27,748	27,827	38,701	-6	100,073
2005 Total .....	6,901	21,613	4,052	17,853	21,410	32,441	28,180	28,261	39,626	(s)	100,168
2006 Total .....	6,154	20,670	3,747	17,707	21,529	32,390	28,618	28,697	39,417	(s)	99,464
2007 Total .....	6,589	21,519	3,922	18,253	21,362	32,384	28,728	28,815	40,371	-1	100,971
2008 Total .....	6,889	21,668	4,100	18,402	20,527	31,333	27,340	27,422	39,969	1	98,825
2009 Total .....	R 6,637	R 21,081	4,055	17,887	18,755	28,465	R 26,507	R 26,589	38,069	(s)	R 94,023
2010 Total .....	R 6,640	R 21,894	4,023	18,058	20,421	30,669	R 26,899	R 26,980	39,619	7	R 97,608
2011 Total .....	R 6,472	R 21,381	4,064	17,980	20,591	30,979	R 26,521	R 26,601	39,293	8	R 96,949
2012 Total .....	R 5,684	R 19,870	3,723	17,420	20,884	31,057	R 26,054	R 26,129	38,131	2	R 94,477
2013 Total .....	R 6,688	R 21,051	4,161	17,929	21,478	31,625	R 26,536	R 26,614	38,357	-1	R 97,218
2014 Total .....	R 7,005	R 21,444	4,390	18,264	21,560	31,796	R 26,871	R 26,871	38,629	6	R 98,381
2015 Total .....	R 6,463	R 20,616	4,441	18,157	21,525	31,469	R 27,164	R 27,241	37,890	1	R 97,484
<b>2016 January</b> .....	R 1,059	R 2,392	627	1,751	1,928	2,731	R 2,182	R 2,189	3,267	(s)	R 9,063
February .....	R 856	R 1,985	532	1,539	1,837	2,584	R 2,121	R 2,127	2,889	-4	R 8,231
March .....	R 602	R 1,582	405	1,438	1,847	2,621	R 2,345	R 2,351	2,794	-7	R 7,986
April .....	R 461	R 1,341	329	1,346	1,720	2,504	R 2,260	R 2,266	2,687	-5	R 7,452
May .....	R 324	R 1,289	265	1,376	1,727	2,562	R 2,351	R 2,357	2,918	-3	R 7,582
June .....	R 236	R 1,529	222	1,464	1,710	2,573	R 2,359	R 2,366	3,404	3	R 7,935
July .....	R 227	R 1,817	222	1,561	1,751	2,648	R 2,430	R 2,437	3,833	6	R 8,469
August .....	R 213	R 1,771	224	1,569	1,841	2,729	R 2,456	R 2,462	3,797	7	R 8,537
September .....	R 230	R 1,477	230	1,421	1,737	2,540	R 2,298	R 2,304	3,247	3	R 7,745
October .....	R 324	R 1,319	290	1,397	1,808	2,608	R 2,321	R 2,327	2,909	(s)	R 7,651
November .....	R 519	R 1,446	382	1,427	1,806	2,586	R 2,251	R 2,257	2,757	-3	R 7,713
December .....	R 981	R 2,240	594	1,738	1,942	2,758	R 2,338	R 2,345	3,225	(s)	R 9,080
<b>Total</b> .....	R 6,031	R 20,180	4,321	18,030	21,657	31,450	R 27,713	R 27,788	37,727	-4	R 97,444
<b>2017 January</b> .....	R 1,017	R 2,317	607	1,709	1,936	2,729	R 2,219	R 2,226	3,201	2	R 8,982
February .....	R 727	R 1,709	465	1,434	1,708	2,434	R 2,042	R 2,048	2,684	-2	R 7,623
March .....	R 737	R 1,774	484	1,562	1,906	2,716	R 2,374	R 2,381	2,932	-2	R 8,430
April .....	R 413	R 1,311	308	1,324	1,773	2,554	R 2,260	R 2,266	2,700	-3	R 7,452
May .....	R 325	R 1,325	269	1,388	1,818	R 2,665	R 2,418	R 2,424	2,971	-1	R 7,800
June .....	R 251	R 1,483	231	1,437	1,782	2,640	R 2,395	R 2,402	3,303	2	R 7,964
July .....	R 227	R 1,745	220	1,529	1,832	2,721	R 2,426	R 2,432	3,722	5	R 8,432
August .....	R 223	R 1,615	227	1,486	1,828	2,701	R 2,485	R 2,492	3,531	4	R 8,297
September .....	R 232	R 1,379	230	1,378	1,762	2,569	R 2,297	R 2,303	3,108	(s)	R 7,630
October .....	R 334	R 1,350	296	1,415	1,852	2,670	R 2,398	R 2,405	2,960	-2	R 7,838
November .....	R 621	R 1,618	432	1,497	1,923	2,729	R 2,281	R 2,287	2,874	-2	R 8,129
December .....	R 1,010	R 2,282	620	1,759	1,992	2,828	R 2,354	R 2,361	3,255	-1	R 9,229
<b>Total</b> .....	R 6,116	R 19,905	4,388	17,919	22,113	R 31,958	R 27,949	R 28,024	37,241	(s)	R 97,807
<b>2018 January</b> .....	R 1,201	R 2,716	695	1,861	2,061	2,834	R 2,235	R 2,242	3,462	2	9,655
February .....	R 856	R 1,976	534	1,541	1,810	2,521	R 2,035	R 2,041	2,844	-2	R 8,077
March .....	R 829	R 1,907	530	1,618	1,990	2,764	R 2,392	R 2,398	2,947	-4	R 8,684
April .....	R 598	R 1,553	405	1,439	1,840	2,595	R 2,298	R 2,304	2,750	-6	R 7,885
May .....	R 304	R 1,390	254	1,436	1,892	2,747	R 2,443	R 2,449	3,129	-3	R 8,019
June .....	R 246	R 1,573	228	1,475	1,844	2,680	R 2,409	R 2,415	3,416	1	R 8,144
July .....	R 236	R 1,794	223	1,556	R 1,900	R 2,766	R 2,479	R 2,486	3,763	R 3	R 8,605
August .....	R 227	R 1,741	R 228	1,560	R 1,983	R 2,864	R 2,523	R 2,530	3,734	R 3	R 8,698
September .....	R 240	R 1,499	230	1,422	R 1,844	R 2,640	R 2,292	R 2,298	3,254	(s)	R 7,859
October .....	R 413	R 1,451	343	1,471	2,003	2,792	R 2,391	R 2,397	2,960	-7	8,103
<b>10-Month Total</b> .....	5,150	17,600	3,670	15,378	19,167	27,203	23,496	23,561	32,258	-12	83,730
<b>2017 10-Month Total</b> .....	4,486	16,009	3,337	14,661	18,198	26,400	23,314	23,376	31,111	3	80,449
<b>2016 10-Month Total</b> .....	4,532	16,502	3,345	14,862	17,908	26,101	23,124	23,186	31,743	-1	80,651

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

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

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

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

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

<sup>f</sup> Total energy consumption in the end-use sectors consists of primary energy consumption, electricity retail sales, and electrical system energy losses. See Note 1, "Electrical System Energy Losses," at end of section.

<sup>g</sup> A balancing item. The sum of primary consumption in the five energy-use sectors equals the sum of total consumption in the four end-use sectors. However, total energy consumption does not equal the sum of the sectoral components due

to the use of sector-specific conversion factors for coal and natural gas.

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

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

Notes: • 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: • End-Use Sectors: Tables 2.2–2.5. • Electric Power Sector:

Table 2.6. • Balancing Item: Calculated as primary energy total consumption

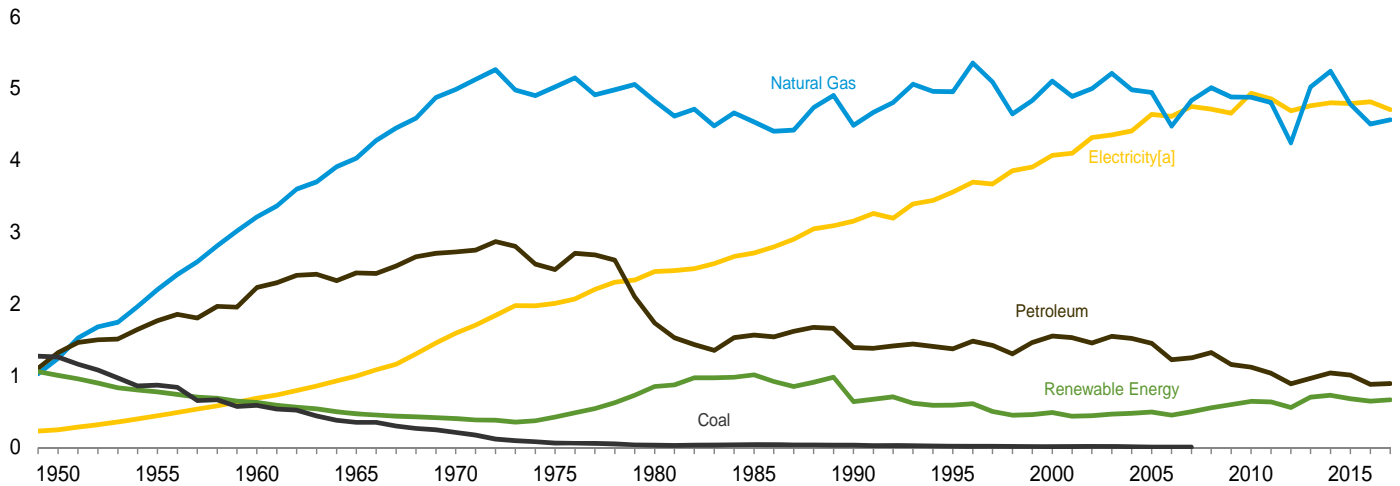
minus the sum of total energy consumption in the four end-use sectors.

• Primary Total: Table 1.3.

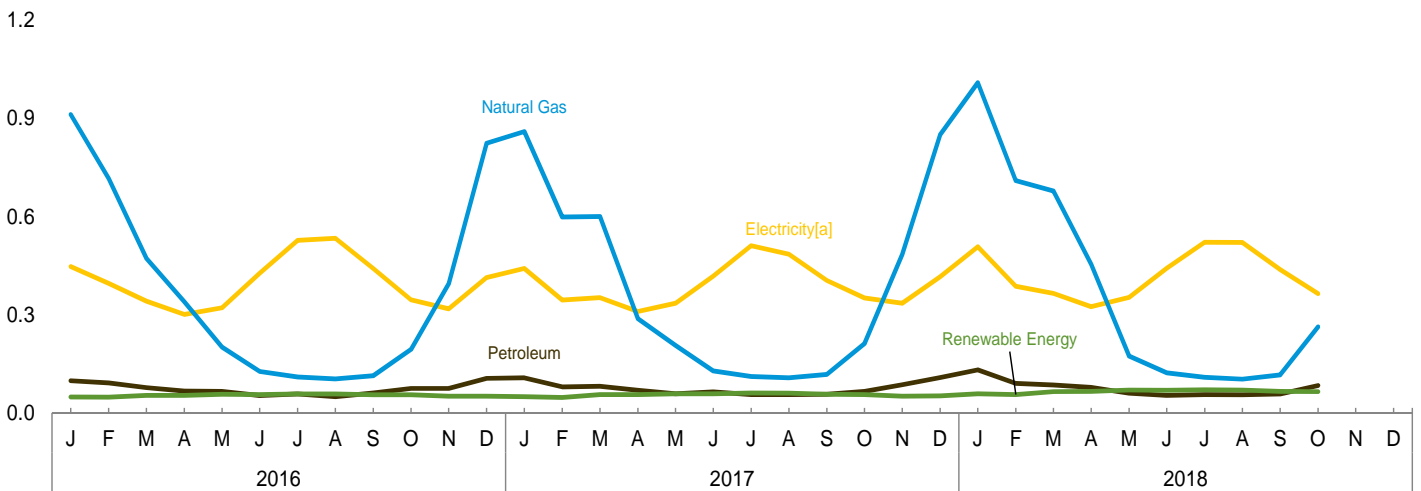
**Figure 2.2 Residential Sector Energy Consumption**

(Quadrillion Btu)

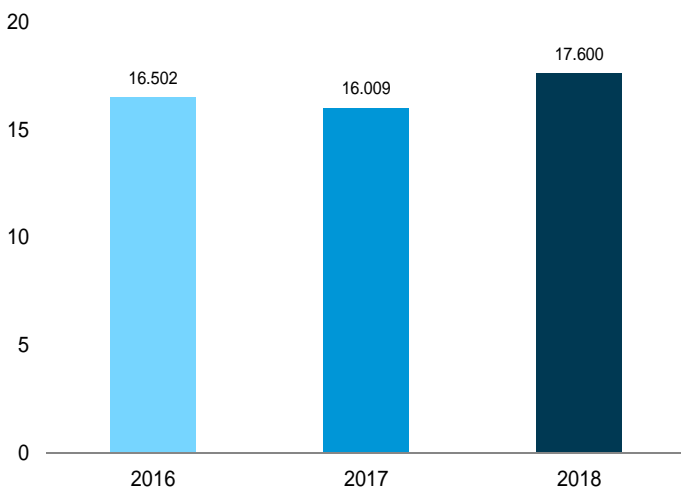
By Major Source, 1949–2017



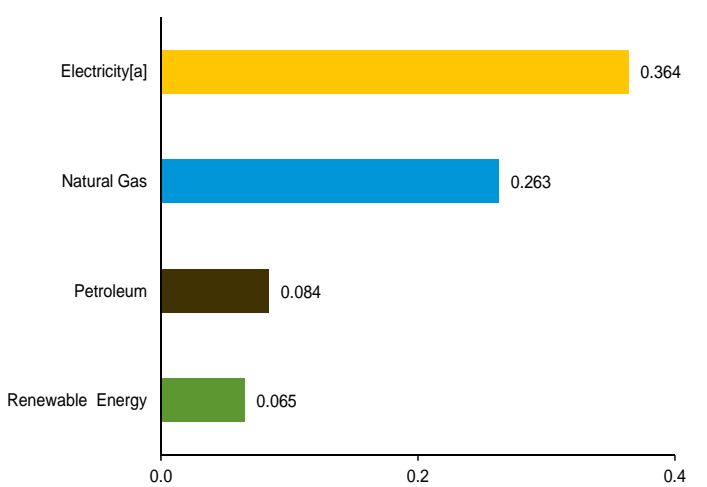
By Major Source, Monthly



Total, January–October



By Major Source, October 2018



[a] Electricity retail sales.

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

Source: Table 2.2.

**Table 2.2 Residential Sector Energy Consumption**  
(Trillion Btu)

	Primary Consumption <sup>a</sup>									Electricity Retail Sales <sup>e</sup>	Electrical System Energy Losses <sup>f</sup>	Total
	Fossil Fuels				Renewable Energy <sup>b</sup>				Total Primary			
	Coal	Natural Gas <sup>c</sup>	Petroleum	Total	Geo-thermal	Solar <sup>d</sup>	Bio-mass	Total				
<b>1950 Total</b> .....	1,261	1,240	1,322	3,824	NA	NA	1,006	1,006	4,829	246	913	5,989
<b>1955 Total</b> .....	867	2,198	1,767	4,833	NA	NA	775	775	5,608	438	1,232	7,278
<b>1960 Total</b> .....	585	3,212	2,227	6,024	NA	NA	627	627	6,651	687	1,701	9,039
<b>1965 Total</b> .....	352	4,028	2,432	6,811	NA	NA	468	468	7,279	993	2,367	10,639
<b>1970 Total</b> .....	209	4,987	2,725	7,922	NA	NA	401	401	8,322	1,591	3,852	13,766
<b>1975 Total</b> .....	63	5,023	2,479	7,564	NA	NA	425	425	7,990	2,007	4,817	14,813
<b>1980 Total</b> .....	31	4,825	1,734	6,589	NA	NA	850	850	7,439	2,448	5,866	15,753
<b>1985 Total</b> .....	39	4,534	1,565	6,138	NA	NA	1,010	1,010	7,148	2,709	6,184	16,041
<b>1990 Total</b> .....	31	4,487	1,394	5,912	6	55	580	640	6,552	3,153	7,235	16,940
<b>1995 Total</b> .....	17	4,954	1,373	6,345	7	63	520	589	6,934	3,557	8,026	18,517
<b>2000 Total</b> .....	11	5,105	1,553	6,669	9	58	420	486	7,156	4,069	9,197	20,421
<b>2001 Total</b> .....	12	4,889	1,528	6,429	9	55	370	435	6,864	4,100	9,074	20,038
<b>2002 Total</b> .....	12	4,995	1,456	6,463	10	53	380	443	6,907	4,317	9,562	20,786
<b>2003 Total</b> .....	12	5,209	1,546	6,768	13	52	400	465	7,232	4,353	9,534	21,119
<b>2004 Total</b> .....	11	4,981	1,519	6,511	14	51	410	475	6,987	4,408	9,687	21,081
<b>2005 Total</b> .....	8	4,946	1,450	6,405	16	50	430	496	6,901	4,638	10,074	21,613
<b>2006 Total</b> .....	6	4,476	1,221	5,704	18	53	380	451	6,154	4,611	9,905	20,670
<b>2007 Total</b> .....	8	4,835	1,249	6,092	22	55	420	497	6,589	4,750	10,180	21,519
<b>2008 Total</b> .....	NA	5,010	1,324	6,334	26	58	470	555	6,889	4,711	10,068	21,668
<b>2009 Total</b> .....	NA	4,883	1,157	6,040	33	60	R 504	R 597	R 6,637	4,657	9,788	R 21,081
<b>2010 Total</b> .....	NA	4,878	1,120	5,998	37	65	R 541	R 642	R 6,640	4,933	10,321	R 21,894
<b>2011 Total</b> .....	NA	4,805	1,033	5,838	40	71	R 524	R 635	R 6,472	4,855	10,054	R 21,381
<b>2012 Total</b> .....	NA	4,242	885	5,127	40	79	R 438	R 557	R 5,684	4,690	9,496	R 19,870
<b>2013 Total</b> .....	NA	5,023	963	5,986	40	91	R 572	R 703	R 6,688	4,759	9,604	R 21,051
<b>2014 Total</b> .....	NA	5,242	1,036	6,278	40	109	R 579	R 727	R 7,005	4,801	9,638	R 21,444
<b>2015 Total</b> .....	NA	4,777	1,007	5,783	40	127	R 513	R 680	R 6,463	4,791	9,362	R 20,616
<b>2016 January</b> .....	NA	912	98	1,009	3	8	R 38	R 49	R 1,059	447	886	R 2,392
February .....	NA	716	92	808	3	10	R 35	R 48	R 856	396	733	R 1,985
March .....	NA	472	77	548	3	13	R 38	R 54	R 602	342	638	R 1,582
April .....	NA	340	67	407	3	14	R 37	R 54	R 461	301	579	R 1,341
May .....	NA	201	66	267	3	16	R 38	R 57	R 324	321	644	R 1,289
June .....	NA	127	53	180	3	17	R 37	R 56	R 236	427	865	R 1,529
July .....	NA	110	58	168	3	17	R 38	R 58	R 227	527	1,063	R 1,817
August .....	NA	104	50	155	3	17	R 38	R 58	R 213	534	1,024	R 1,771
September .....	NA	114	61	175	3	15	R 37	R 55	R 230	441	806	R 1,477
October .....	NA	194	75	269	3	13	R 38	R 55	R 324	346	649	R 1,319
November .....	NA	394	75	468	3	11	R 37	R 51	R 619	318	609	R 1,446
December .....	NA	824	106	930	3	10	R 38	R 51	R 981	414	845	R 2,240
<b>Total</b> .....	NA	4,506	878	5,384	40	160	R 448	R 647	R 6,031	4,815	9,334	R 20,180
<b>2017 January</b> .....	NA	860	107	967	3	10	R 37	R 50	R 1,017	441	859	R 2,317
February .....	NA	599	80	680	3	11	R 33	R 47	R 727	345	638	R 1,709
March .....	NA	600	81	681	3	16	R 37	R 56	R 737	352	685	R 1,774
April .....	NA	288	69	357	3	18	R 36	R 56	R 413	310	588	R 1,311
May .....	NA	206	59	265	3	19	R 37	R 59	R 325	335	665	R 1,325
June .....	NA	128	64	192	3	20	R 36	R 59	R 251	418	R 814	R 1,483
July .....	NA	111	56	167	3	20	R 37	R 61	R 227	511	1,006	R 1,745
August .....	NA	107	56	163	3	20	R 37	R 60	R 223	485	907	R 1,615
September .....	NA	118	57	176	3	18	R 36	R 57	R 232	405	742	R 1,379
October .....	NA	212	66	278	3	16	R 37	R 56	R 334	351	665	R 1,350
November .....	NA	484	86	570	3	12	R 36	R 51	R 621	335	662	R 1,618
December .....	NA	850	108	958	3	12	R 37	R 52	R 1,010	416	R 856	R 2,282
<b>Total</b> .....	NA	4,563	889	5,452	40	191	R 433	R 664	R 6,116	4,704	9,985	R 19,905
<b>2018 January</b> .....	NA	1,009	132	1,142	3	12	R 44	R 59	R 1,201	508	1,007	R 2,716
February .....	NA	710	90	801	3	13	R 40	R 56	R 856	387	733	R 1,976
March .....	NA	678	85	764	3	18	R 44	R 65	R 829	365	713	R 1,907
April .....	NA	454	78	532	3	20	R 43	R 66	R 598	325	630	R 1,553
May .....	NA	174	60	234	3	23	R 44	R 70	R 304	353	733	R 1,390
June .....	NA	123	54	177	3	23	R 43	R 69	R 246	442	886	R 1,573
July .....	NA	109	56	165	3	24	R 44	R 71	R 236	522	1,035	R 1,794
August .....	NA	R 103	55	157	3	23	R 44	R 70	R 227	521	993	R 1,741
September .....	NA	R 116	58	R 174	3	20	R 43	R 66	R 240	438	821	R 1,499
October .....	NA	263	84	347	3	18	44	65	413	364	674	1,451
<b>10-Month Total</b> .....	NA	3,740	754	4,493	33	193	431	657	5,150	4,225	8,225	17,600
<b>2017 10-Month Total</b> .....	NA	3,231	695	3,926	33	167	361	561	4,486	3,952	7,570	16,009
<b>2016 10-Month Total</b> .....	NA	3,289	697	3,986	33	139	373	545	4,532	4,083	7,887	16,502

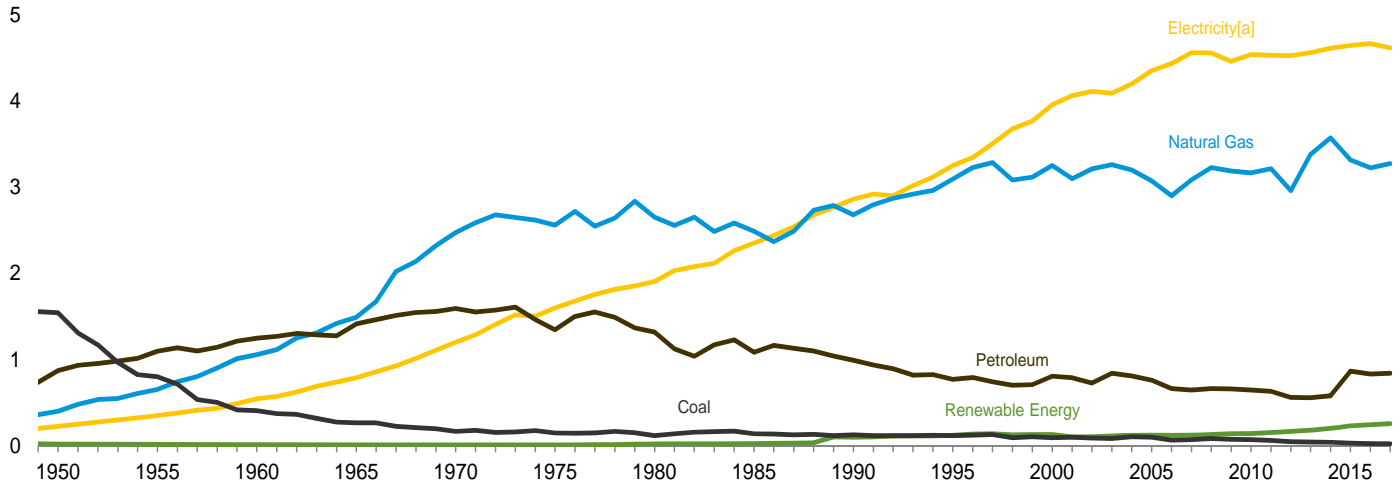
<sup>a</sup> See "Primary Energy Consumption" in Glossary.  
<sup>b</sup> See Table 10.2a for notes on series components.  
<sup>c</sup> Natural gas only; excludes the estimated portion of supplemental gaseous fuels. See Note 3, "Supplemental Gaseous Fuels," at end of Section 4.  
<sup>d</sup> Distributed (small-scale) solar photovoltaic (PV) electricity generation in the residential sector and distributed solar thermal energy in the residential, commercial, and industrial sectors. See Tables 10.2a and 10.5.  
<sup>e</sup> Electricity retail sales to ultimate customers reported by electric utilities and, beginning in 1996, other energy service providers.  
 Total losses are calculated as the primary energy consumed by the electric power sector minus the energy content of electricity retail sales. Total losses are allocated to the end-use sectors in proportion to each sector's share of total

electricity retail sales. See Note 1, "Electrical System Energy Losses," at end of section.  
 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: See end of section.

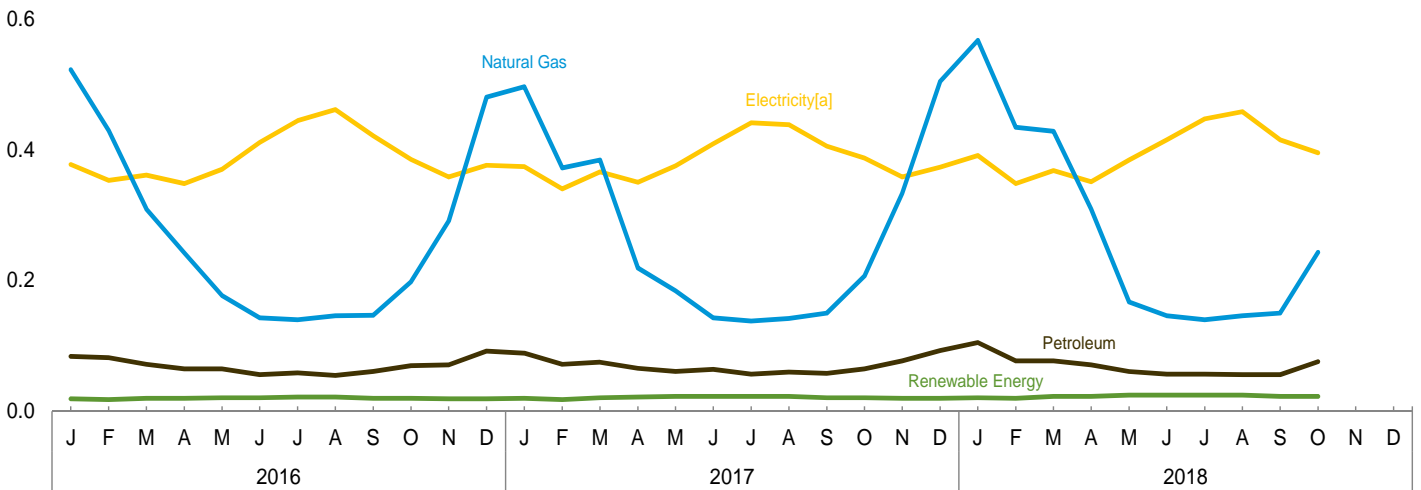
**Figure 2.3 Commercial Sector Energy Consumption**

(Quadrillion Btu)

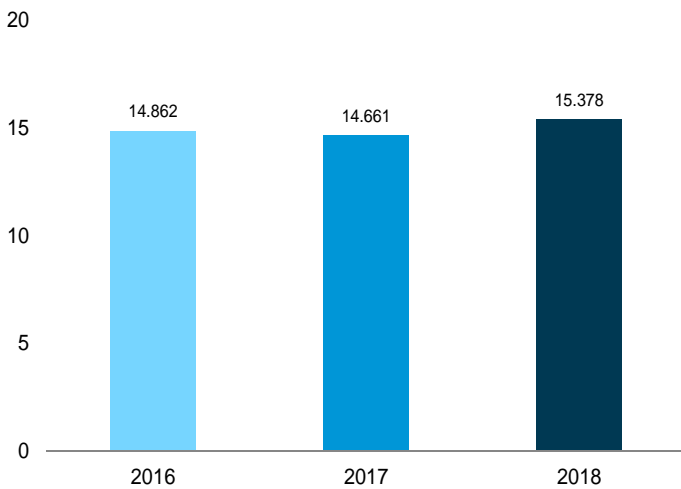
By Major Source, 1949–2017



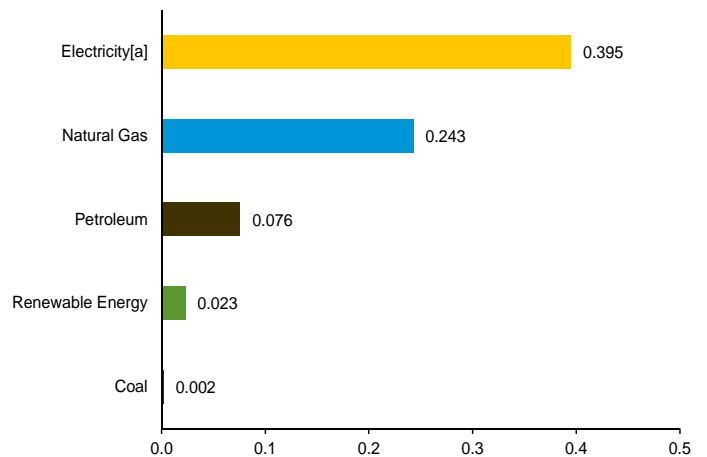
By Major Source, Monthly



Total, January–October



By Major Source, October 2018



[a] Electricity retail sales.

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

Source: Table 2.3.

**Table 2.3 Commercial Sector Energy Consumption**  
(Trillion Btu)

	Primary Consumption <sup>a</sup>										Total Primary	Elec- tricity Retail Sales <sup>g</sup>	Electrical System Energy Losses <sup>h</sup>	Total
	Fossil Fuels				Renewable Energy <sup>b</sup>									
	Coal	Natural Gas <sup>c</sup>	Petro- leum <sup>d</sup>	Total	Hydro- electric Power <sup>e</sup>	Geo- thermal	Solar <sup>f</sup>	Wind	Bio- mass	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	12	2,723	543	1,344	4,609
1965 Total	265	1,490	1,413	3,168	NA	NA	NA	NA	9	9	3,177	789	1,880	5,845
1970 Total	165	2,473	1,592	4,229	NA	NA	NA	NA	8	8	4,237	1,201	2,908	8,346
1975 Total	147	2,558	1,346	4,051	NA	NA	NA	NA	8	8	4,059	1,598	3,835	9,492
1980 Total	115	2,651	1,318	4,084	NA	NA	NA	NA	21	21	4,105	1,906	4,567	10,578
1985 Total	137	2,488	1,083	3,708	NA	NA	NA	NA	24	24	3,732	2,351	5,368	11,451
1990 Total	124	2,680	991	3,795	1	3	(s)	—	94	98	3,893	2,860	6,564	13,317
1995 Total	117	3,096	769	3,982	1	5	(s)	—	113	119	4,100	3,252	7,337	14,690
2000 Total	92	3,252	806	4,150	1	8	1	—	119	128	4,278	3,956	8,942	17,175
2001 Total	97	3,097	789	3,983	1	8	1	—	92	101	4,084	4,062	8,990	17,137
2002 Total	90	3,212	725	4,027	(s)	9	1	—	95	105	4,132	4,110	9,104	17,346
2003 Total	82	3,261	841	4,184	1	11	1	—	101	114	4,298	4,090	8,958	17,346
2004 Total	103	3,201	809	4,113	1	12	1	—	105	120	4,232	4,198	9,225	17,655
2005 Total	97	3,073	761	3,931	1	14	2	—	105	121	4,052	4,351	9,451	17,853
2006 Total	65	2,902	661	3,627	1	14	2	—	103	120	3,747	4,435	9,525	17,707
2007 Total	70	3,085	646	3,801	1	14	4	—	103	121	3,922	4,560	9,771	18,253
2008 Total	81	3,228	660	3,969	1	15	6	—	109	130	4,100	4,559	9,743	18,402
2009 Total	73	3,187	659	3,919	1	17	7	(s)	112	137	4,055	4,459	9,373	17,887
2010 Total	70	3,165	646	3,881	1	19	11	(s)	111	142	4,023	4,539	9,497	18,058
2011 Total	62	3,216	632	3,910	(s)	20	19	(s)	115	154	4,064	4,531	9,385	17,980
2012 Total	44	2,960	560	3,563	(s)	20	32	1	108	161	3,723	4,528	9,168	17,420
2013 Total	41	3,380	558	3,979	(s)	20	41	1	120	182	4,161	4,562	9,206	17,929
2014 Total	40	3,572	577	4,190	(s)	20	52	1	127	200	4,390	4,614	9,261	18,264
2015 Total	31	3,316	864	4,211	(s)	20	57	1	152	230	4,441	4,643	9,073	18,157
2016 January	3	522	84	609	(s)	2	3	(s)	13	19	627	377	747	1,751
February	3	429	82	513	(s)	2	4	(s)	12	18	532	353	654	1,539
March	3	309	72	384	(s)	2	5	(s)	13	20	405	361	673	1,438
April	1	242	65	308	(s)	2	6	(s)	13	20	329	348	669	1,346
May	1	177	65	244	(s)	2	6	(s)	13	21	265	370	741	1,376
June	2	143	56	201	(s)	2	6	(s)	13	21	222	411	831	1,464
July	1	140	59	200	(s)	2	6	(s)	14	22	222	444	896	1,561
August	1	146	55	202	(s)	2	6	(s)	14	22	224	461	884	1,569
September	1	147	61	209	(s)	2	6	(s)	13	20	230	421	770	1,421
October	2	198	70	270	(s)	2	5	(s)	13	20	290	385	722	1,397
November	2	291	71	364	(s)	2	4	(s)	13	19	382	358	686	1,427
December	3	480	92	575	(s)	2	4	(s)	13	19	594	376	768	1,738
Total	24	3,224	832	4,079	2	20	62	1	158	242	4,321	4,665	9,044	18,030
2017 January	3	496	89	587	(s)	2	4	(s)	14	20	607	374	728	1,709
February	2	372	72	446	(s)	2	4	(s)	12	18	465	340	630	1,434
March	2	384	75	462	(s)	2	6	(s)	13	21	484	366	712	1,562
April	1	219	66	287	(s)	2	7	(s)	13	22	308	350	665	1,324
May	1	184	61	247	(s)	2	8	(s)	13	23	269	375	743	1,388
June	1	143	64	208	(s)	2	8	(s)	13	23	231	409	797	1,437
July	1	138	57	197	(s)	2	8	(s)	13	23	220	441	868	1,529
August	1	142	60	203	(s)	2	8	(s)	13	23	227	438	821	1,486
September	1	150	58	209	(s)	2	7	(s)	13	21	230	405	742	1,378
October	1	207	65	274	(s)	2	6	(s)	13	21	296	387	733	1,415
November	2	333	77	412	(s)	2	5	(s)	13	20	432	358	707	1,497
December	2	504	93	599	(s)	2	5	(s)	14	20	620	373	767	1,759
Total	21	3,272	839	4,132	2	20	76	1	157	256	4,388	4,616	8,916	17,919
2018 January	3	567	105	674	(s)	2	5	(s)	13	21	695	391	775	1,861
February	2	434	77	514	(s)	2	6	(s)	12	20	534	348	659	1,541
March	2	428	77	507	(s)	2	8	(s)	13	23	530	368	720	1,618
April	1	309	71	382	(s)	2	9	(s)	12	23	405	351	682	1,439
May	1	167	61	229	(s)	2	10	(s)	13	25	254	384	798	1,436
June	1	146	57	204	(s)	2	10	(s)	13	25	228	415	832	1,475
July	1	140	57	198	(s)	2	10	(s)	13	25	223	447	886	1,556
August	1	146	56	203	(s)	2	10	(s)	13	25	228	458	874	1,560
September	1	150	56	207	(s)	2	9	(s)	12	23	230	415	777	1,422
October	2	243	76	321	(s)	2	8	(s)	13	23	343	395	732	1,471
10-Month Total	16	2,730	693	3,439	2	16	84	1	128	232	3,670	3,973	7,735	15,378
2017 10-Month Total	16	2,436	669	3,121	2	16	66	1	131	216	3,337	3,885	7,439	14,661
2016 10-Month Total	19	2,453	669	3,141	2	16	54	1	131	204	3,345	3,930	7,587	14,862

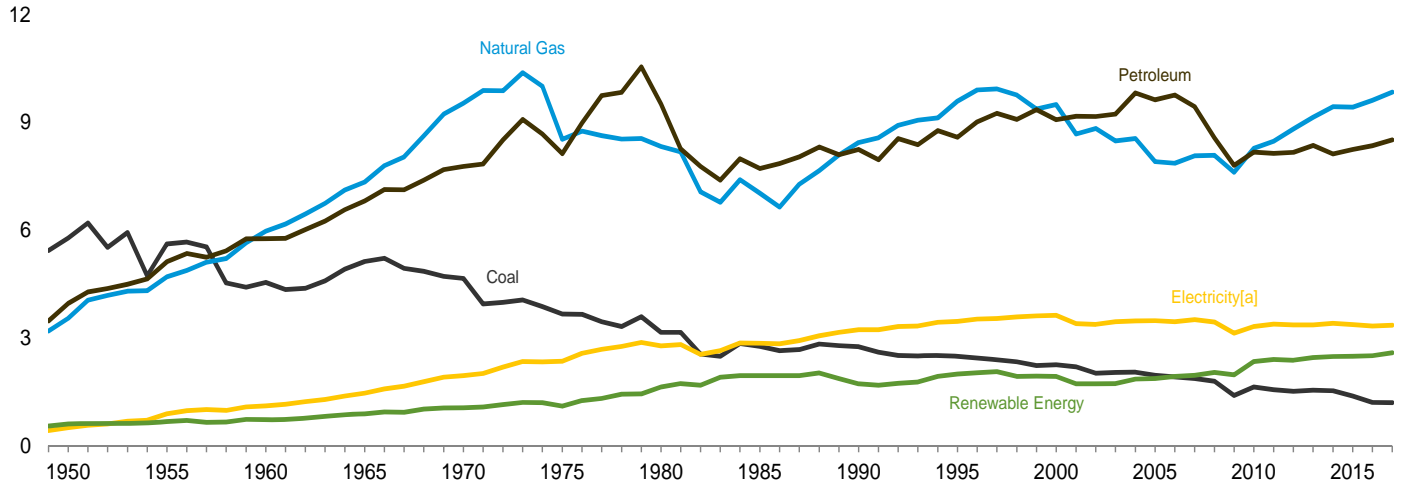
<sup>a</sup> See "Primary Energy Consumption" in Glossary.  
<sup>b</sup> See Table 10.2a for notes on series components and estimation.  
<sup>c</sup> Natural gas only; excludes the estimated portion of supplemental gaseous fuels. See Note 3, "Supplemental Gaseous Fuels," at end of Section 4.  
<sup>d</sup> Does not include biofuels that have been blended with petroleum—biofuels are included in "Biomass."  
<sup>e</sup> Conventional hydroelectric power.  
<sup>f</sup> Solar photovoltaic (PV) electricity net generation in the commercial sector, both utility-scale and distributed (small-scale). See Tables 10.2a and 10.5.  
<sup>g</sup> Electricity retail sales to ultimate customers reported by electric utilities and, beginning in 1996, other energy service providers.  
<sup>h</sup> Total losses are calculated as the primary energy consumed by the electric power sector minus the energy content of electricity retail sales. Total losses are allocated to the end-use sectors in proportion to each sector's share of total electricity retail sales. See Note 1, "Electrical System Energy Losses," at end of

section.  
R=Revised. NA=Not available. —=No data reported. (s)=Less than 0.5 trillion Btu.  
Notes: • Data are estimates, except for coal totals beginning in 2008; hydroelectric power; solar; wind; and electricity retail sales beginning in 1979.  
• The commercial sector includes commercial combined-heat-and-power (CHP) and commercial electricity-only plants. See Note 2, "Classification of Power Plants Into Energy-Use Sectors," at end of Section 7. • See Note 2, "Energy Consumption Data and Surveys," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia.  
Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#consumption> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.  
Sources: See end of section.

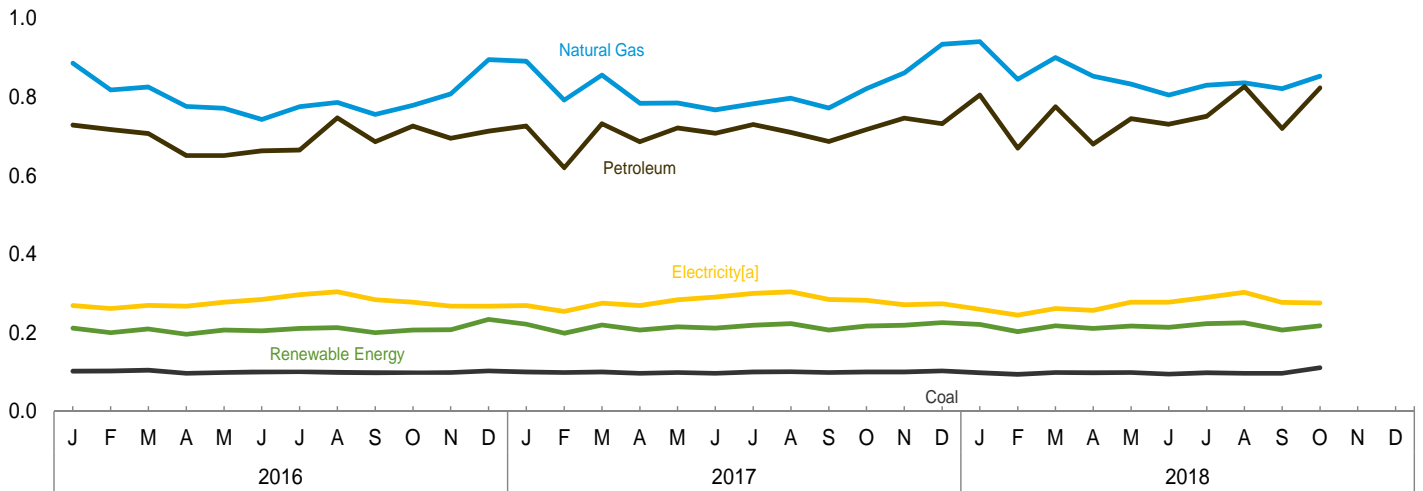
**Figure 2.4 Industrial Sector Energy Consumption**

(Quadrillion Btu)

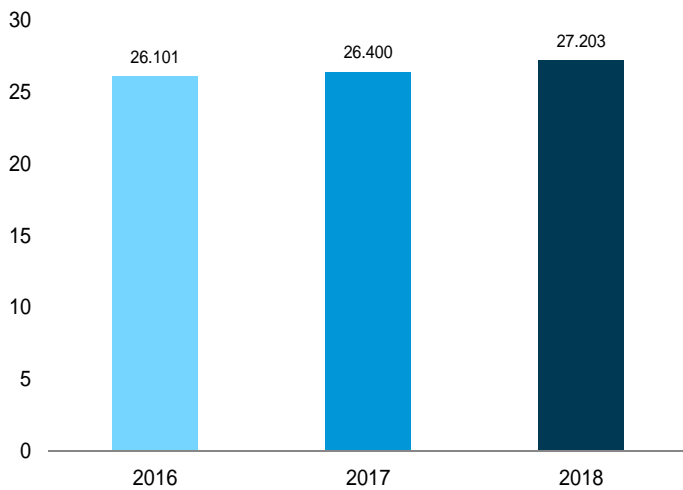
By Major Source, 1949–2017



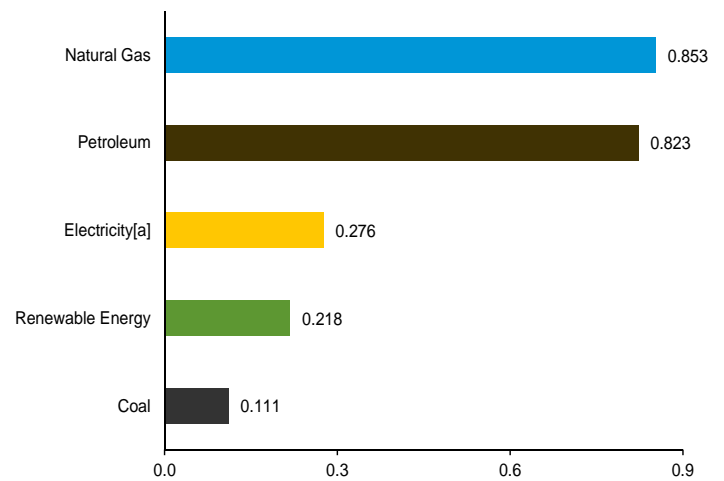
By Major Source, Monthly



Total, January–October



By Major Source, October 2018



[a] Electricity retail sales.

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

Source: Table 2.4.



**Table 2.4 Industrial Sector Energy Consumption**  
(Trillion Btu)

	Primary Consumption <sup>a</sup>											Electricity Retail Sales <sup>i</sup>	Electrical System Energy Losses <sup>j</sup>	Total <sup>k</sup>
	Fossil Fuels <sup>b</sup>				Renewable Energy <sup>c</sup>						Total Primary			
	Coal	Natural Gas <sup>d</sup>	Petroleum <sup>e</sup>	Total <sup>f</sup>	Hydroelectric Power <sup>g</sup>	Geothermal	Solar <sup>h</sup>	Wind	Bio-mass	Total				
1950 Total	5,781	3,546	3,960	13,288	69	NA	NA	NA	532	602	13,890	500	1,852	16,241
1955 Total	5,620	4,701	5,123	15,434	38	NA	NA	NA	631	669	16,103	887	2,495	19,485
1960 Total	4,543	5,973	5,766	16,277	39	NA	NA	NA	680	719	16,996	1,107	2,739	20,842
1965 Total	5,127	7,339	6,813	19,260	33	NA	NA	NA	855	888	20,148	1,463	3,487	25,098
1970 Total	4,656	9,536	7,776	21,911	34	NA	NA	NA	1,019	1,053	22,964	1,948	4,716	29,628
1975 Total	3,667	8,532	8,127	20,339	32	NA	NA	NA	1,063	1,096	21,434	2,346	5,632	29,413
1980 Total	3,155	8,333	9,509	20,962	33	NA	NA	NA	1,600	1,633	22,595	2,781	6,664	32,039
1985 Total	2,760	7,032	7,714	17,492	33	NA	NA	NA	1,918	1,951	19,443	2,855	6,518	28,816
1990 Total	2,756	8,443	8,251	19,455	31	2	(s)	—	1,684	1,717	21,172	3,226	7,404	31,802
1995 Total	2,488	9,592	8,585	20,726	55	3	(s)	—	1,934	1,992	22,718	3,455	7,796	33,969
2000 Total	2,256	9,500	9,073	20,895	42	4	(s)	—	1,881	1,928	22,823	3,631	8,208	34,662
2001 Total	2,192	8,676	9,176	20,073	33	5	(s)	—	1,681	1,719	21,792	3,400	7,526	32,718
2002 Total	2,019	8,832	9,166	20,078	39	5	(s)	—	1,676	1,720	21,797	3,379	7,484	32,660
2003 Total	2,041	8,488	9,228	19,809	43	3	(s)	—	1,678	1,725	21,533	3,454	7,565	32,553
2004 Total	2,047	8,550	9,825	20,560	33	4	(s)	—	1,815	1,852	22,411	3,473	7,631	33,515
2005 Total	1,954	7,907	9,634	19,539	32	4	(s)	—	1,834	1,871	21,410	3,477	7,554	32,441
2006 Total	1,914	7,861	9,767	19,603	29	4	1	—	1,892	1,926	21,529	3,451	7,411	32,390
2007 Total	1,865	8,074	9,441	19,404	16	5	1	—	1,937	1,958	21,362	3,507	7,515	32,384
2008 Total	1,793	8,083	8,575	18,492	17	5	1	—	2,012	2,035	20,527	3,444	7,362	31,333
2009 Total	1,392	7,609	7,805	16,783	18	4	2	—	1,948	1,972	18,755	3,130	6,580	28,465
2010 Total	1,631	8,278	8,174	18,078	16	4	3	—	2,320	2,343	20,421	3,314	6,934	30,669
2011 Total	1,561	8,481	8,138	18,190	17	4	4	(s)	2,375	2,401	20,591	3,382	7,005	30,979
2012 Total	1,513	8,819	8,166	18,501	22	4	7	(s)	2,349	2,382	20,884	3,363	6,810	31,057
2013 Total	1,546	9,140	8,360	19,029	33	4	9	(s)	2,403	2,449	21,478	3,362	6,785	31,625
2014 Total	1,530	9,441	8,126	19,076	12	4	11	1	2,456	2,484	21,560	3,404	6,832	31,796
2015 Total	1,380	9,426	8,246	19,034	13	4	14	(s)	2,460	2,491	21,525	3,366	6,578	31,469
2016 January	102	886	729	1,716	1	(s)	1	(s)	209	212	1,928	269	534	2,731
February	103	818	717	1,638	1	(s)	1	(s)	197	200	1,837	262	485	2,584
March	105	825	707	1,637	1	(s)	2	(s)	206	210	1,847	270	504	2,621
April	97	776	651	1,524	1	(s)	2	(s)	193	196	1,720	268	516	2,504
May	99	771	651	1,520	1	(s)	2	(s)	204	207	1,727	278	557	2,562
June	100	743	663	1,505	1	(s)	2	(s)	202	205	1,710	285	578	2,573
July	101	775	665	1,539	1	(s)	2	(s)	208	211	1,751	297	600	2,648
August	99	786	747	1,629	1	(s)	2	(s)	209	213	1,841	304	583	2,729
September	98	756	686	1,538	1	(s)	2	(s)	197	200	1,737	284	519	2,540
October	99	779	726	1,602	1	(s)	2	(s)	204	207	1,808	278	522	2,608
November	99	808	695	1,598	1	(s)	1	(s)	206	208	1,806	268	512	2,586
December	103	895	713	1,708	1	(s)	1	(s)	231	234	1,942	268	548	2,758
Total	1,205	9,617	8,350	19,154	12	4	19	1	2,467	2,503	21,657	3,333	6,461	31,450
2017 January	100	891	726	1,714	1	(s)	1	(s)	220	222	1,936	269	524	2,729
February	99	792	620	1,510	1	(s)	1	(s)	196	199	1,708	254	471	2,434
March	100	856	732	1,687	1	(s)	2	(s)	216	220	1,906	275	535	2,716
April	97	784	686	1,566	1	(s)	2	(s)	203	207	1,773	269	512	2,554
May	99	785	721	1,603	1	(s)	2	(s)	211	215	1,818	284	562	2,665
June	97	767	708	1,569	1	(s)	2	(s)	208	212	1,782	291	567	2,640
July	100	783	730	1,612	1	(s)	2	(s)	216	219	1,832	300	590	2,721
August	101	797	710	1,605	1	(s)	2	(s)	220	223	1,828	304	569	2,701
September	99	772	687	1,556	1	(s)	2	(s)	203	207	1,762	285	522	2,569
October	100	821	717	1,634	1	(s)	2	(s)	214	217	1,852	283	536	2,670
November	100	861	746	1,704	1	(s)	1	(s)	216	219	1,923	271	535	2,729
December	103	934	732	1,766	1	(s)	1	(s)	223	226	1,992	274	563	2,828
Total	1,195	9,844	8,516	19,526	13	4	22	1	2,547	2,587	22,113	3,358	6,487	31,958
2018 January	98	941	805	1,840	1	(s)	1	(s)	218	221	2,061	260	514	2,834
February	94	845	670	1,607	1	(s)	1	(s)	200	203	1,810	245	465	2,521
March	99	900	775	1,772	1	(s)	2	(s)	214	218	1,990	262	512	2,764
April	98	853	680	1,628	1	(s)	2	(s)	208	211	1,840	257	499	2,595
May	99	833	745	1,675	1	(s)	3	(s)	213	217	1,892	278	577	2,747
June	95	805	731	1,630	1	(s)	3	(s)	210	214	1,844	278	558	2,680
July	R 98	830	751	R 1,677	1	(s)	3	(s)	219	223	R 1,900	290	576	R 2,766
August	R 97	R 836	827	R 1,759	1	(s)	3	(s)	221	225	R 1,983	303	578	R 2,864
September	R 97	821	720	R 1,637	1	(s)	2	(s)	203	207	R 1,844	277	519	R 2,640
October	111	853	823	1,785	1	(s)	2	(s)	214	218	2,003	276	512	2,792
10-Month Total	987	8,517	7,527	17,010	11	3	22	1	2,120	2,157	19,167	2,727	5,309	27,203
2017 10-Month Total	992	8,048	7,037	16,056	11	3	19	1	2,108	2,142	18,198	2,814	5,388	26,400
2016 10-Month Total	1,003	7,914	6,942	15,847	10	4	17	1	2,030	2,061	17,908	2,797	5,397	26,101

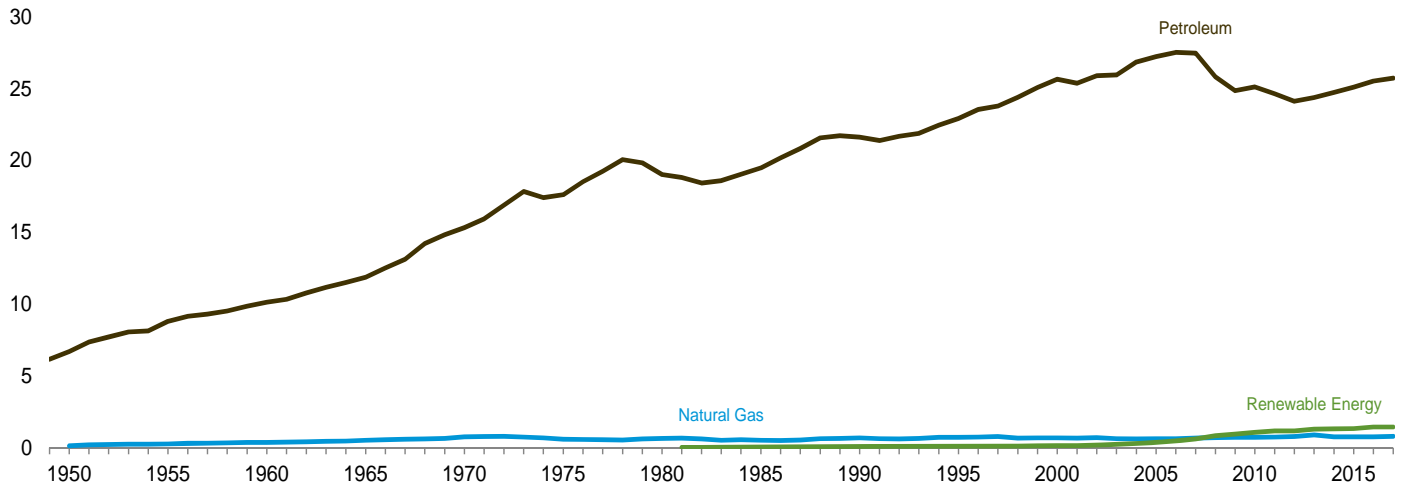
a See "Primary Energy Consumption" in Glossary.  
b Includes non-combustion use of fossil fuels.  
c See Table 10.2b for notes on series components and estimation.  
d Natural gas only; excludes the estimated portion of supplemental gaseous fuels. See Note 3, "Supplemental Gaseous Fuels," at end of Section 4.  
e Does not include biofuels that have been blended with petroleum—biofuels are included in "Biomass."  
f Includes coal coke net imports, which are not separately displayed. See Tables 1.4a and 1.4b.  
g Conventional hydroelectric power.  
h Solar photovoltaic (PV) electricity net generation in the industrial sector, both utility-scale and distributed (small-scale). See Tables 10.2b and 10.5.  
i Electricity retail sales to ultimate customers reported by electric utilities and, beginning in 1996, other energy service providers.  
j Total losses are calculated as the primary energy consumed by the electric power sector minus the energy content of electricity retail sales. Total losses are allocated to the end-use sectors in proportion to each sector's share of total

electricity retail sales. See Note 1, "Electrical System Energy Losses," at end of section.  
R=Revised. NA=Not available. —=No data reported. (s)=Less than 0.5 trillion Btu.  
Notes: • Data are estimates, except for coal totals; hydroelectric power in 1949–1978 and 1989 forward; solar; wind; and electricity retail sales. • The industrial sector includes industrial combined-heat-and-power (CHP) and industrial electricity-only plants. See Note 2, "Classification of Power Plants Into Energy-Use Sectors," at end of Section 7. • See Note 2, "Energy Consumption Data and Surveys," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia.  
Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#consumption> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.  
Sources: See end of section.

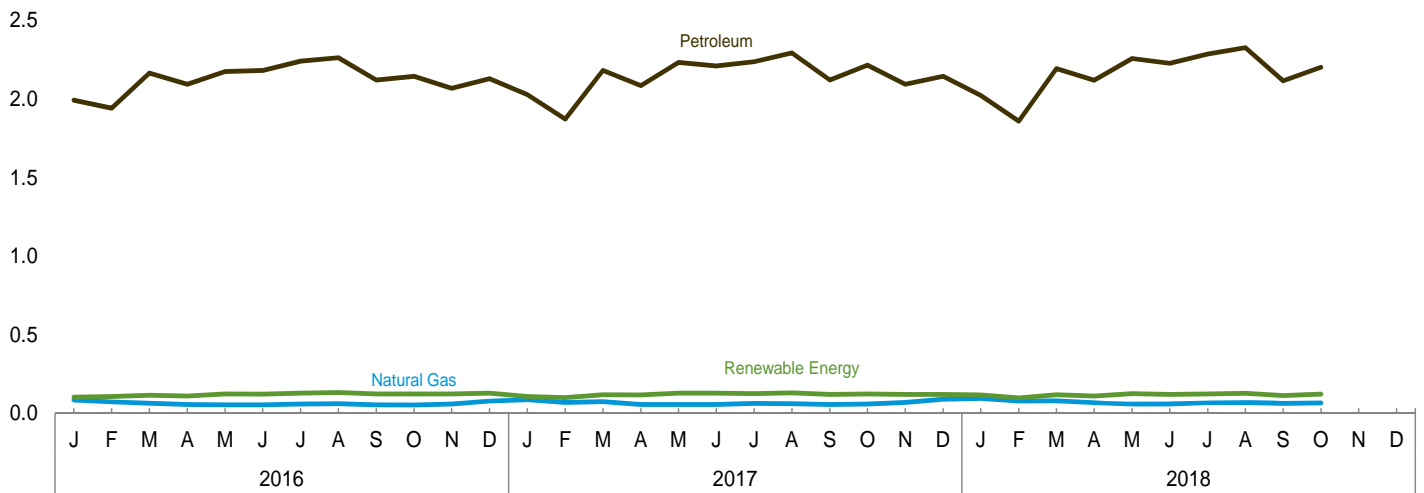
**Figure 2.5 Transportation Sector Energy Consumption**

(Quadrillion Btu)

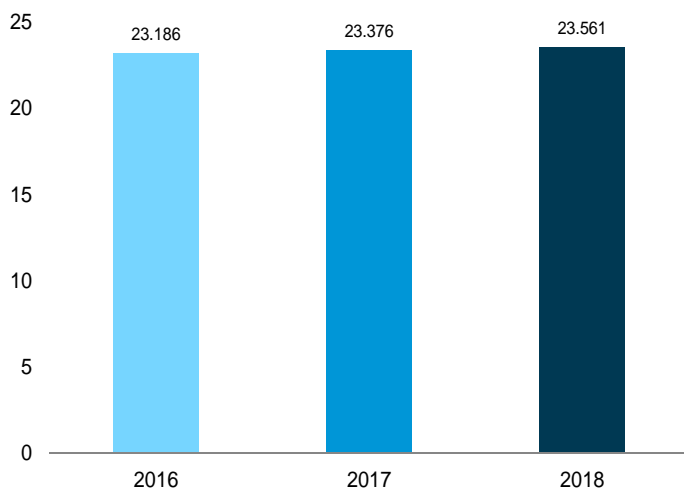
By Major Source, 1949–2017



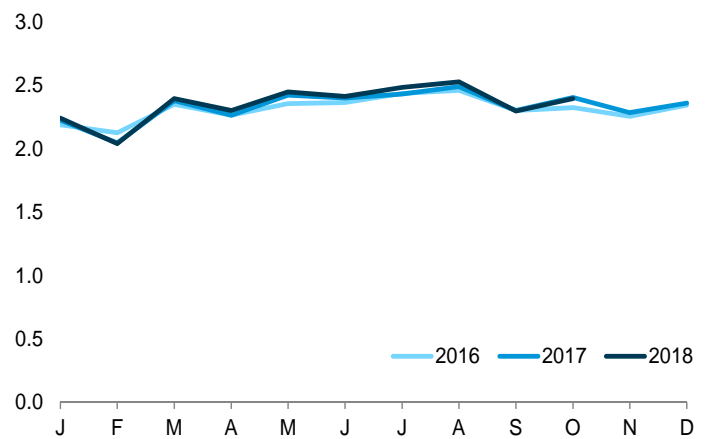
By Major Source, Monthly



Total, January–October



Total, Monthly



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

Source: Table 2.5.

**Table 2.5 Transportation Sector Energy Consumption**  
(Trillion Btu)

	Primary Consumption <sup>a</sup>					Electricity Retail Sales <sup>e</sup>	Electrical System Energy Losses <sup>f</sup>	Total	
	Fossil Fuels				Renewable Energy <sup>b</sup>				Total Primary
	Coal	Natural Gas <sup>c</sup>	Petroleum <sup>d</sup>	Total	Biomass				
<b>1950 Total</b> .....	1,564	130	6,690	8,383	NA	8,383	23	86	8,492
<b>1955 Total</b> .....	421	254	8,799	9,474	NA	9,474	20	56	9,550
<b>1960 Total</b> .....	75	359	10,125	10,560	NA	10,560	10	26	10,596
<b>1965 Total</b> .....	16	517	11,866	12,399	NA	12,399	10	24	12,432
<b>1970 Total</b> .....	7	745	15,310	16,062	NA	16,062	11	26	16,098
<b>1975 Total</b> .....	1	595	17,615	18,210	NA	18,210	10	24	18,245
<b>1980 Total</b> .....	(g)	650	19,009	19,659	NA	19,659	11	27	19,697
<b>1985 Total</b> .....	(g)	519	19,472	19,992	50	20,041	14	32	20,088
<b>1990 Total</b> .....	(g)	679	21,626	22,305	60	22,366	16	37	22,419
<b>1995 Total</b> .....	(g)	724	22,920	23,644	112	23,757	17	38	23,812
<b>2000 Total</b> .....	(g)	672	25,649	26,321	135	26,456	18	42	26,516
<b>2001 Total</b> .....	(g)	658	25,379	26,037	142	26,179	20	43	26,242
<b>2002 Total</b> .....	(g)	699	25,879	26,578	170	26,747	19	42	26,808
<b>2003 Total</b> .....	(g)	627	25,950	26,577	230	26,807	23	51	26,881
<b>2004 Total</b> .....	(g)	602	26,856	27,458	290	27,748	25	54	27,827
<b>2005 Total</b> .....	(g)	624	27,217	27,840	339	28,180	26	56	28,261
<b>2006 Total</b> .....	(g)	625	27,518	28,143	475	28,618	25	54	28,697
<b>2007 Total</b> .....	(g)	663	27,462	28,126	602	28,728	28	60	28,815
<b>2008 Total</b> .....	(g)	692	25,823	26,515	825	27,340	26	56	27,422
<b>2009 Total</b> .....	(g)	715	R 24,857	R 25,572	935	R 26,507	27	56	R 26,598
<b>2010 Total</b> .....	(g)	719	R 25,105	R 25,824	1,075	R 26,899	26	55	R 26,980
<b>2011 Total</b> .....	(g)	734	R 24,629	R 25,362	R 1,159	R 26,521	26	54	R 26,601
<b>2012 Total</b> .....	(g)	780	R 24,114	R 24,894	R 1,160	R 26,054	25	51	R 26,129
<b>2013 Total</b> .....	(g)	887	R 24,364	R 25,252	R 1,284	R 26,536	26	53	R 26,614
<b>2014 Total</b> .....	(g)	760	R 24,729	R 25,489	R 1,302	R 26,791	26	53	R 26,871
<b>2015 Total</b> .....	(g)	745	R 25,085	R 25,830	R 1,334	R 27,164	26	51	R 27,241
<b>2016 January</b> .....	(g)	85	R 1,993	R 2,078	R 104	R 2,182	2	4	R 2,189
February .....	(g)	73	R 1,941	R 2,014	107	R 2,121	2	4	R 2,127
March .....	(g)	65	R 2,164	R 2,229	116	R 2,345	2	4	R 2,351
April .....	(g)	57	R 2,093	R 2,150	R 110	R 2,260	2	4	R 2,266
May .....	(g)	54	R 2,174	R 2,229	R 123	R 2,351	2	4	R 2,357
June .....	(g)	55	R 2,182	R 2,237	122	R 2,359	2	4	R 2,366
July .....	(g)	60	R 2,241	R 2,301	R 129	R 2,430	2	4	R 2,437
August .....	(g)	61	R 2,263	R 2,324	R 132	R 2,456	2	4	R 2,462
September .....	(g)	54	R 2,120	R 2,174	R 123	R 2,298	2	4	R 2,304
October .....	(g)	53	R 2,144	R 2,197	R 124	R 2,321	2	4	R 2,327
November .....	(g)	60	R 2,068	R 2,128	124	R 2,251	2	4	R 2,257
December .....	(g)	79	R 2,130	R 2,209	R 129	R 2,338	2	5	R 2,345
<b>Total</b> .....	(g)	757	R 25,513	R 26,270	R 1,443	R 27,713	26	50	R 27,788
<b>2017 January</b> .....	(g)	86	R 2,027	R 2,113	107	R 2,219	2	4	R 2,226
February .....	(g)	69	R 1,872	R 1,940	R 101	R 2,042	2	4	R 2,048
March .....	(g)	75	R 2,182	R 2,257	118	R 2,374	2	4	R 2,381
April .....	(g)	57	R 2,086	R 2,143	117	R 2,260	2	4	R 2,266
May .....	(g)	56	R 2,233	R 2,289	R 129	R 2,418	2	4	R 2,424
June .....	(g)	56	R 2,210	R 2,267	R 129	R 2,395	2	4	R 2,402
July .....	(g)	63	R 2,238	R 2,301	125	R 2,426	2	4	R 2,432
August .....	(g)	62	R 2,293	R 2,355	R 131	R 2,485	2	4	R 2,492
September .....	(g)	57	R 2,120	R 2,177	120	R 2,297	2	4	R 2,303
October .....	(g)	60	R 2,216	R 2,276	123	R 2,398	2	4	R 2,405
November .....	(g)	69	R 2,093	R 2,162	120	R 2,281	2	4	R 2,287
December .....	(g)	90	R 2,144	R 2,234	R 120	R 2,354	2	5	R 2,361
<b>Total</b> .....	(g)	799	R 25,713	R 26,511	R 1,438	R 27,949	26	50	R 28,024
<b>2018 January</b> .....	(g)	95	R 2,022	R 2,117	117	R 2,235	3	5	R 2,242
February .....	(g)	78	R 1,859	R 1,937	98	R 2,035	2	4	R 2,041
March .....	(g)	80	R 2,193	R 2,274	R 118	R 2,392	2	4	R 2,398
April .....	(g)	68	R 2,119	R 2,187	R 110	R 2,298	2	4	R 2,304
May .....	(g)	60	R 2,257	R 2,317	126	R 2,443	2	4	R 2,449
June .....	(g)	60	R 2,228	R 2,288	121	R 2,409	2	4	R 2,415
July .....	(g)	68	R 2,287	R 2,356	R 124	R 2,479	2	4	R 2,486
August .....	(g)	68	R 2,327	R 2,395	R 128	R 2,523	2	4	R 2,530
September .....	(g)	63	R 2,116	R 2,179	R 113	R 2,292	2	4	R 2,298
October .....	(g)	67	R 2,202	R 2,269	122	R 2,391	2	4	R 2,397
<b>10-Month Total</b> ...	(g)	708	21,611	22,319	1,177	23,496	22	43	23,561
<b>2017 10-Month Total</b> ...	(g)	640	21,476	22,116	1,198	23,314	21	41	23,376
<b>2016 10-Month Total</b> ...	(g)	618	21,315	21,934	1,190	23,124	21	41	23,186

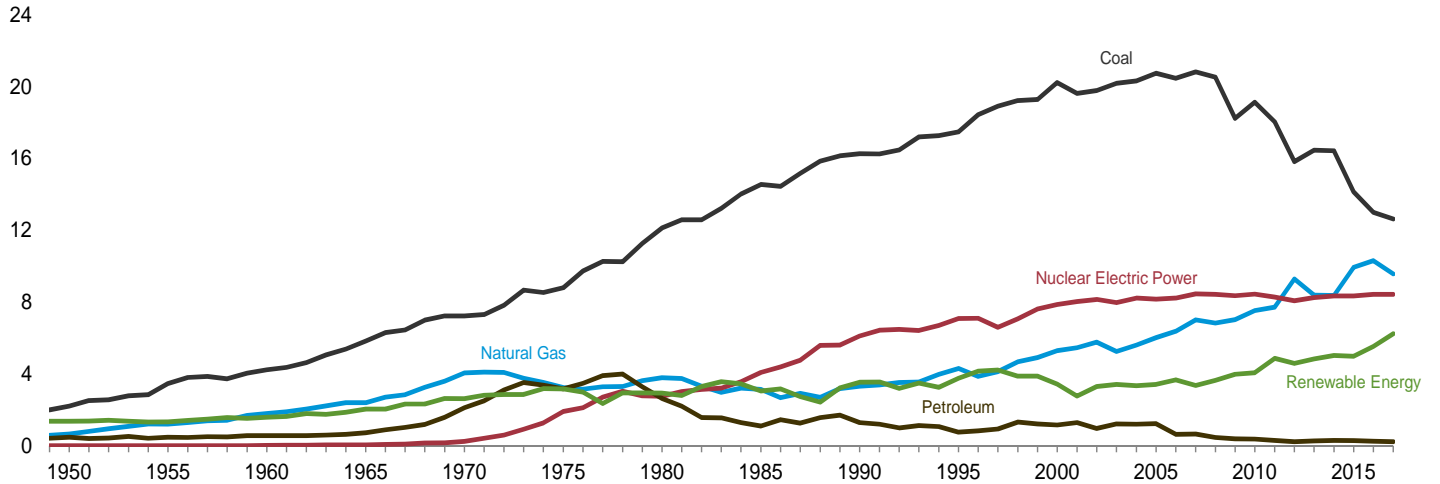
<sup>a</sup> See "Primary Energy Consumption" in Glossary.  
<sup>b</sup> See Table 10.2b for notes on series components.  
<sup>c</sup> Natural gas only; does not include supplemental gaseous fuels—see Note 3, "Supplemental Gaseous Fuels," at end of Section 4. Data are for natural gas consumed in the operation of pipelines (primarily in compressors) and small amounts consumed as vehicle fuel—see Table 4.3.  
<sup>d</sup> Does not include biofuels that have been blended with petroleum—biofuels are included in "Biomass." Includes non-combustion use of lubricants.  
<sup>e</sup> Electricity retail sales to ultimate customers reported by electric utilities and, beginning in 1996, other energy service providers.  
<sup>f</sup> Total losses are calculated as the primary energy consumed by the electric power sector minus the energy content of electricity retail sales. Total losses are allocated to the end-use sectors in proportion to each sector's share of total electricity retail sales. See Note 1, "Electrical System Energy Losses," at end of

section.  
<sup>g</sup> Beginning in 1978, the small amounts of coal consumed for transportation are reported as industrial sector consumption.  
R=Revised, NA=Not available.  
Notes: • Data are estimates, except for coal totals through 1977; and electricity retail sales beginning in 1979. • See Note 2, "Energy Consumption Data and Surveys," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia.  
Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#consumption> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.  
Sources: See end of section.

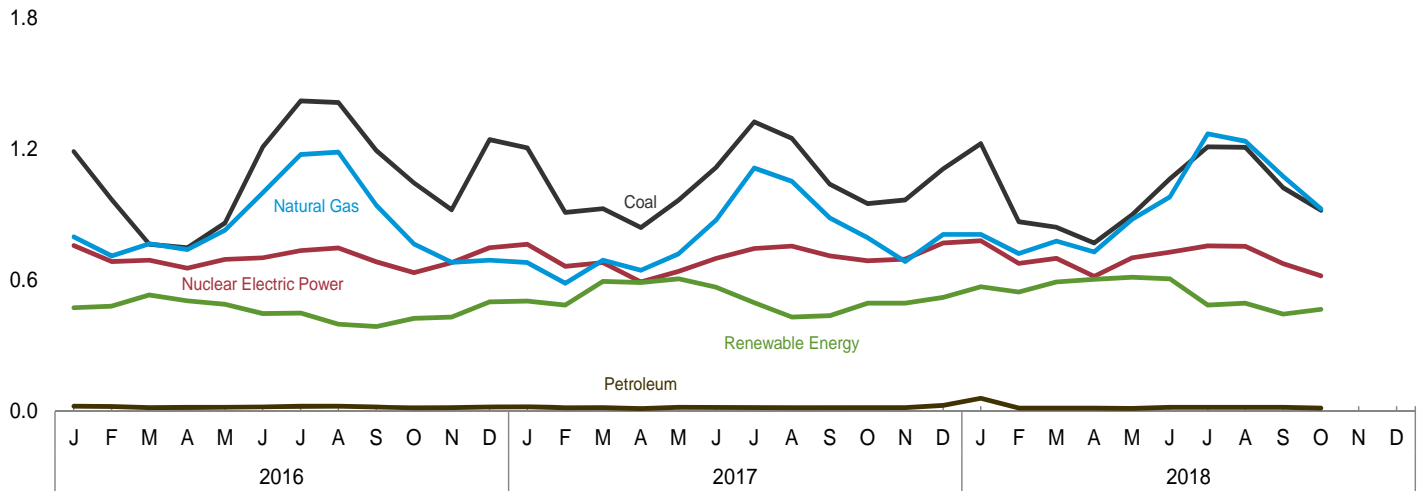
**Figure 2.6 Electric Power Sector Energy Consumption**

(Quadrillion Btu)

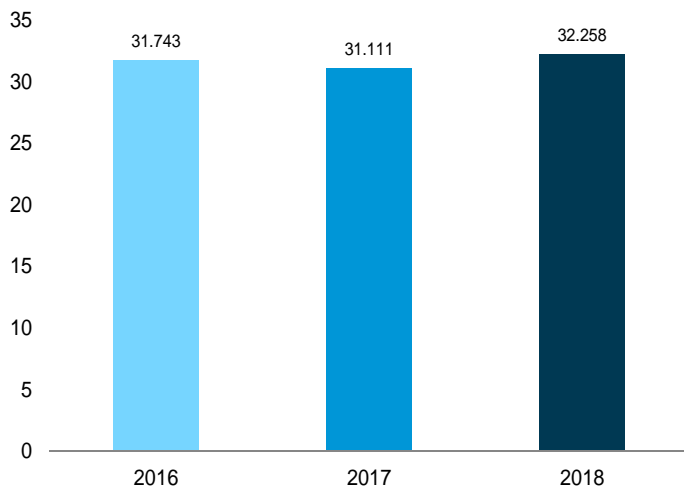
By Major Source, 1949–2017



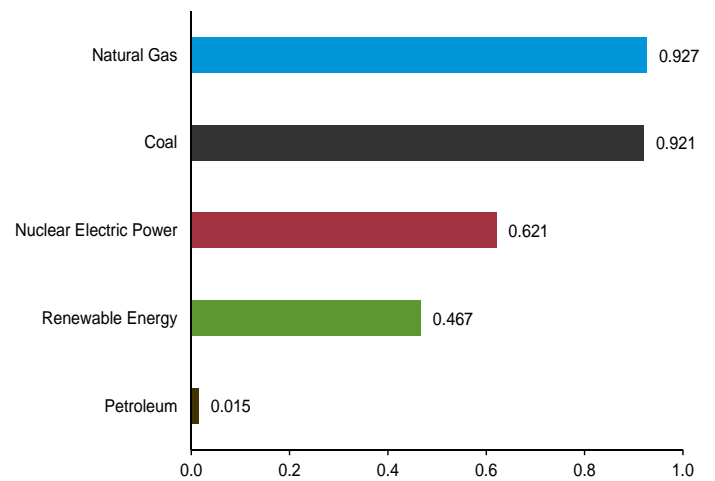
By Major Source, Monthly



Total, January–October



By Major Source, October 2018



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

**Table 2.6 Electric Power Sector Energy Consumption**  
(Trillion Btu)

	Primary Consumption <sup>a</sup>												Elec- tricity Net Imports <sup>f</sup>	Total Primary
	Fossil Fuels				Nuclear Electric Power	Renewable Energy <sup>b</sup>								
	Coal	Natural Gas <sup>c</sup>	Petro- leum	Total		Hydro- electric Power <sup>d</sup>	Geo- thermal	Solar <sup>e</sup>	Wind	Bio- mass	Total			
1950 Total	2,199	651	472	3,322	0	1,346	NA	NA	NA	5	1,351	6	4,679	
1955 Total	3,458	1,194	471	5,123	0	1,322	NA	NA	NA	3	1,325	14	6,461	
1960 Total	4,228	1,785	553	6,565	6	1,569	(s)	NA	NA	2	1,571	15	8,158	
1965 Total	5,821	2,395	722	8,938	43	2,026	2	NA	NA	3	2,031	(s)	11,012	
1970 Total	7,227	4,054	2,117	13,399	239	2,600	6	NA	NA	4	2,609	7	16,253	
1975 Total	8,786	3,240	3,166	15,191	1,900	3,122	34	NA	NA	2	3,158	21	20,270	
1980 Total	12,123	3,778	2,634	18,534	2,739	2,867	53	NA	NA	4	2,925	71	24,269	
1985 Total	14,542	3,135	1,090	18,767	4,076	2,937	97	(s)	(s)	14	3,049	140	26,032	
1990 Total	16,261	3,309	1,289	20,859	6,104	3,014	161	4	29	317	3,524	8	930,495	
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	1,276	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	1,201	27,101	8,223	2,655	148	6	142	388	3,339	39	38,701	
2005 Total	20,737	6,015	1,222	27,974	8,161	2,670	147	6	178	406	3,406	85	39,626	
2006 Total	20,462	6,375	637	27,474	8,215	2,839	145	5	264	412	3,665	63	39,417	
2007 Total	20,808	7,005	648	28,461	8,459	2,430	145	6	341	423	3,345	107	40,371	
2008 Total	20,513	6,829	459	27,801	8,426	2,494	146	9	546	435	3,630	112	39,969	
2009 Total	18,225	7,022	382	25,630	8,355	2,650	146	9	721	441	3,967	116	38,069	
2010 Total	19,133	7,528	370	27,031	8,434	2,521	148	12	923	459	4,064	89	39,619	
2011 Total	18,035	7,712	295	26,042	8,269	3,085	149	17	1,167	437	4,855	127	39,293	
2012 Total	15,821	9,287	214	25,322	8,062	2,606	148	40	1,339	453	4,586	161	38,131	
2013 Total	16,451	8,376	255	25,082	8,244	2,529	151	83	1,600	470	4,833	197	38,357	
2014 Total	16,427	8,362	295	25,085	8,338	2,454	151	165	1,726	530	5,026	182	38,629	
2015 Total	14,138	9,926	276	24,341	8,337	2,308	148	228	1,776	525	4,985	227	37,890	
2016 January	1,190	799	23	2,012	759	235	12	13	170	44	475	21	3,267	
February	970	712	22	1,704	687	222	11	20	186	43	482	17	2,889	
March	765	768	18	1,552	692	251	12	24	202	43	533	18	2,794	
April	750	741	19	1,510	656	238	11	26	192	39	506	15	2,687	
May	863	830	19	1,712	696	234	12	31	174	40	491	18	2,918	
June	1,211	1,001	20	2,232	703	213	12	32	150	41	448	21	3,404	
July	1,422	1,176	24	2,622	736	197	12	36	163	44	451	24	3,833	
August	1,415	1,188	24	2,627	748	180	12	36	125	45	399	23	3,797	
September	1,195	944	20	2,158	685	150	12	33	151	41	388	16	3,247	
October	1,046	767	16	1,830	635	159	12	29	188	37	426	18	2,909	
November	923	683	18	1,623	682	173	13	25	179	42	432	20	2,757	
December	1,245	692	20	1,958	750	207	13	22	213	46	501	17	3,225	
<b>Total</b>	<b>12,996</b>	<b>10,301</b>	<b>244</b>	<b>23,542</b>	<b>8,427</b>	<b>2,459</b>	<b>146</b>	<b>328</b>	<b>2,094</b>	<b>505</b>	<b>5,531</b>	<b>227</b>	<b>37,727</b>	
2017 January	1,207	681	21	1,909	765	245	13	19	183	46	505	22	3,201	
February	912	587	16	1,515	665	217	11	23	195	41	487	17	2,684	
March	929	693	17	1,639	681	268	13	39	230	45	595	17	2,932	
April	842	646	13	1,501	593	269	12	43	227	39	590	15	2,700	
May	967	722	19	1,708	641	297	12	52	207	40	607	15	2,971	
June	1,118	877	19	2,015	701	277	11	56	182	42	569	18	3,303	
July	1,326	1,115	18	2,460	746	243	12	52	147	44	498	18	3,722	
August	1,251	1,054	18	2,322	757	200	12	50	125	45	432	20	3,531	
September	1,040	886	17	1,942	712	175	12	47	164	40	438	15	3,108	
October	951	796	16	1,763	690	167	11	44	233	40	496	11	2,960	
November	968	687	17	1,672	697	188	12	31	222	42	495	11	2,874	
December	1,111	810	27	1,948	771	205	14	31	226	45	522	14	3,255	
<b>Total</b>	<b>12,622</b>	<b>9,555</b>	<b>218</b>	<b>22,395</b>	<b>8,419</b>	<b>2,752</b>	<b>147</b>	<b>486</b>	<b>2,341</b>	<b>510</b>	<b>6,235</b>	<b>192</b>	<b>37,241</b>	
2018 January	1,226	810	60	2,096	781	235	13	31	247	45	571	14	3,462	
February	869	723	15	1,607	678	234	12	38	222	42	547	12	2,844	
March	843	780	15	1,638	701	238	13	48	251	44	593	15	2,947	
April	771	730	15	1,516	618	252	12	57	247	38	605	10	2,750	
May	901	880	14	1,795	704	279	13	65	217	42	615	14	3,129	
June	1,065	982	19	2,065	729	256	13	71	224	43	607	15	3,416	
July	1,212	1,272	19	2,503	758	220	13	63	147	43	487	15	3,763	
August	1,210	1,237	19	2,466	756	196	13	64	180	42	495	17	3,734	
September	1,025	1,077	19	2,120	677	171	13	59	166	38	446	11	3,254	
October	921	927	15	1,863	621	172	12	48	195	40	467	10	2,960	
<b>10-Month Total</b>	<b>10,043</b>	<b>9,417</b>	<b>209</b>	<b>19,669</b>	<b>7,023</b>	<b>2,252</b>	<b>127</b>	<b>542</b>	<b>2,095</b>	<b>417</b>	<b>5,434</b>	<b>132</b>	<b>32,258</b>	
2017 10-Month Total	10,543	8,057	174	18,774	6,951	2,359	120	424	1,893	422	5,218	168	31,111	
2016 10-Month Total	10,829	8,925	206	19,959	6,996	2,079	120	280	1,701	418	4,599	190	31,743	

a See "Primary Energy Consumption" in Glossary.  
b See Table 10.2c for notes on series components.  
c Natural gas only; excludes the estimated portion of supplemental gaseous fuels. See Note 3, "Supplemental Gaseous Fuels," at end of Section 4.  
d Conventional hydroelectric power.  
e Solar photovoltaic (PV) and solar thermal electricity net generation in the electric power sector. See Tables 10.2c and 10.5.  
f Net imports equal imports minus exports.  
g Through 1988, data are for electric utilities only. Beginning in 1989, data are for electric utilities and independent power producers.  
NA=Not available. (s)=Less than 0.5 trillion Btu.

Notes: • Data are for fuels consumed to produce electricity and useful thermal output. • The electric power sector comprises electricity-only and combined-heat-and-power (CHP) plants within the NAICS 22 category whose primary business is to sell electricity, or electricity and heat, to the public. • See Note 2, "Energy Consumption Data and Surveys," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia.  
Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#consumption> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.  
Sources: See end of section.

**Table 2.7 U.S. Government Energy Consumption by Agency, Fiscal Years**  
(Trillion Btu)

Fiscal Year <sup>a</sup>	Agri-culture	Defense	DHS <sup>b</sup>	Energy	GSA <sup>c</sup>	HHS <sup>d</sup>	Interior	Justice	NASA <sup>e</sup>	Postal Service	Trans- portation	Veterans Affairs	Other <sup>f</sup>	Total
1975 .....	9.5	1,360.2	--	50.4	22.3	6.5	9.4	5.9	13.4	30.5	19.3	27.1	10.5	1,565.0
1976 .....	9.3	1,183.3	--	50.3	20.6	6.7	9.4	5.7	12.4	30.0	19.5	25.0	11.2	1,383.4
1977 .....	8.9	1,192.3	--	51.6	20.4	6.9	9.5	5.9	12.0	32.7	20.4	25.9	11.9	1,398.5
1978 .....	9.1	1,157.8	--	50.1	20.4	6.5	9.2	5.9	11.2	30.9	20.6	26.8	12.4	1,360.9
1979 .....	9.2	1,175.8	--	49.6	19.6	6.4	10.4	6.4	11.1	29.3	19.6	25.7	12.3	1,375.4
1980 .....	8.6	1,183.1	--	47.4	18.1	6.0	8.5	5.7	10.4	27.2	19.2	24.8	12.3	1,371.2
1981 .....	7.9	1,239.5	--	47.3	18.0	6.7	7.6	5.4	10.0	27.9	18.8	24.0	11.1	1,424.2
1982 .....	7.6	1,264.5	--	49.0	18.1	6.4	7.4	5.8	10.1	27.5	19.1	24.2	11.6	1,451.4
1983 .....	7.4	1,248.3	--	49.5	16.1	6.2	7.7	5.5	10.3	26.5	19.4	24.1	10.8	1,431.8
1984 .....	7.9	1,292.1	--	51.6	16.2	6.4	8.4	6.4	10.6	27.7	19.8	24.6	10.7	1,482.5
1985 .....	8.4	1,250.6	--	52.2	20.7	6.0	7.8	8.2	10.9	27.8	19.6	25.1	13.1	1,450.3
1986 .....	6.8	1,222.8	--	46.9	14.0	6.2	6.9	8.6	11.2	28.0	19.4	25.0	10.8	1,406.7
1987 .....	7.3	1,280.5	--	48.5	13.1	6.6	6.6	8.1	11.3	28.5	19.0	24.9	11.9	1,466.3
1988 .....	7.8	1,165.8	--	49.9	12.4	6.4	7.0	9.4	11.3	29.6	18.7	26.3	15.8	1,360.3
1989 .....	8.7	1,274.4	--	44.2	12.7	6.7	7.1	7.7	12.4	30.3	18.5	26.2	15.6	1,464.7
1990 .....	9.6	1,241.7	--	43.5	17.5	7.1	7.4	7.0	12.4	30.6	19.0	24.9	17.5	1,438.0
1991 .....	9.6	1,269.3	--	42.1	14.0	6.2	7.1	8.0	12.5	30.8	19.0	25.1	18.1	1,461.7
1992 .....	9.1	1,104.0	--	44.3	13.8	6.8	7.0	7.5	12.6	31.7	17.0	25.3	15.7	1,294.8
1993 .....	9.3	1,048.8	--	43.4	14.1	7.2	7.5	9.1	12.4	33.7	19.4	25.7	16.2	1,246.8
1994 .....	9.4	977.0	--	42.1	14.0	7.5	7.9	10.3	12.6	35.0	19.8	25.6	17.1	1,178.2
1995 .....	9.0	926.0	--	47.3	13.7	6.1	6.4	10.2	12.4	36.2	18.7	25.4	17.1	1,128.5
1996 .....	9.1	904.5	--	44.6	14.5	6.6	4.3	12.1	11.5	36.4	19.6	26.8	17.7	1,107.7
1997 .....	7.4	880.0	--	43.1	14.4	7.9	6.6	12.0	12.0	40.8	19.1	27.3	20.8	1,091.2
1998 .....	7.9	837.1	--	31.5	14.1	7.4	6.4	15.8	11.7	39.5	18.5	27.6	19.5	1,037.1
1999 .....	7.8	810.7	--	27.0	14.4	7.1	7.5	15.4	11.4	39.8	22.6	27.5	19.8	1,010.9
2000 .....	7.4	779.1	--	30.5	17.6	8.0	7.8	19.7	11.1	43.3	21.2	27.0	20.3	993.1
2001 .....	7.4	787.2	--	31.1	18.4	8.5	9.5	19.7	10.9	43.4	17.8	27.7	20.7	1,002.3
2002 .....	7.2	837.5	--	30.7	17.5	8.0	8.2	17.7	10.7	41.6	18.3	27.7	18.4	1,043.4
2003 .....	7.7	895.1	18.3	31.9	18.5	10.1	7.3	22.7	10.8	50.9	5.5	30.6	<sup>R</sup> 22.7	1,132.3
2004 .....	7.0	960.7	23.5	31.4	18.3	8.8	8.7	17.5	9.9	50.5	5.2	29.9	<sup>R</sup> 20.4	1,191.7
2005 .....	7.5	933.2	18.9	29.6	18.4	9.6	8.6	18.8	10.3	53.5	5.0	30.0	<sup>R</sup> 23.2	1,166.4
2006 .....	6.8	843.7	17.1	32.9	18.2	9.3	8.1	23.5	10.2	51.8	4.6	29.3	<sup>R</sup> 20.9	1,076.4
2007 .....	6.8	864.6	17.1	31.5	19.1	9.9	7.5	20.7	10.6	45.8	5.6	30.0	<sup>R</sup> 21.0	1,090.2
2008 .....	6.5	910.8	21.7	32.1	18.8	10.3	7.1	19.0	10.8	47.1	7.7	29.0	<sup>R</sup> 22.4	1,143.2
2009 .....	6.6	874.3	18.6	31.1	18.6	10.8	7.9	16.5	10.2	44.2	4.3	29.9	<sup>R</sup> 21.8	1,094.8
2010 .....	6.8	889.9	21.2	31.7	18.8	10.4	7.3	15.7	10.1	43.3	5.7	30.2	<sup>R</sup> 21.8	1,112.7
2011 .....	8.3	890.3	20.3	33.1	18.5	10.5	7.3	13.9	10.1	43.0	6.7	30.6	<sup>R</sup> 21.4	1,114.1
2012 .....	6.7	828.5	20.1	30.3	16.3	10.0	6.7	15.1	8.9	40.8	5.6	29.7	<sup>R</sup> 20.5	1,039.3
2013 .....	7.3	749.5	18.9	28.9	16.4	10.5	6.2	15.3	8.7	41.9	5.3	29.9	<sup>R</sup> 20.4	959.3
2014 .....	6.3	730.6	18.5	29.4	17.0	9.5	6.2	15.6	8.3	43.0	5.2	31.4	<sup>R</sup> 20.6	941.5
2015 .....	6.2	734.5	17.9	30.1	16.3	9.0	6.8	16.2	8.4	44.0	6.0	30.7	<sup>R</sup> 19.8	945.8
2016 .....	6.2	709.2	18.1	28.9	15.8	8.7	6.4	15.6	8.5	43.9	6.0	30.3	<sup>R</sup> 19.5	917.2
2017 .....	6.3	707.9	19.2	28.8	14.9	8.8	5.9	15.5	8.6	43.7	6.7	29.1	<sup>R</sup> 19.7	915.1

<sup>a</sup> For 1975 and 1976, the U.S. Government's fiscal year was July 1 through June 30. Beginning in 1977, the U.S. Government's fiscal year is October 1 through September 30 (for example, fiscal year 2014 is October 2013 through September 2014).

<sup>b</sup> U.S. Department of Homeland Security.

<sup>c</sup> General Services Administration.

<sup>d</sup> Health and Human Services.

<sup>e</sup> National Aeronautics and Space Administration.

<sup>f</sup> Includes all U.S. government agencies not separately displayed. See <http://ctsedweb.ee.doe.gov/Annual/Report/AgencyReference.aspx> for agency list. R=Revised. --=Not applicable.

Notes: • Data in this table are developed using conversion factors that often

differ from those in Tables A1–A6. • Data include energy consumed at foreign installations and in foreign operations, including aviation and ocean bunkering, primarily by the U.S. Department of Defense. U.S. Government energy use for electricity generation and uranium enrichment is excluded. • Totals may not equal sum of components due to independent rounding.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#consumption> (Excel and CSV files) for all annual data beginning in 1975.

Source: U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, Federal Energy Management Program. See <http://ctsedweb.ee.doe.gov/Annual/Report/Report.aspx>, "A-1 Total Site-Delivered Energy Use in All End-Use Sectors, by Federal Agency (Billion Btu)".

This table has been modified to include a column for the Department of Homeland Security (DHS); data in "Other" have been adjusted.

**Table 2.8 U.S. Government Energy Consumption by Source, Fiscal Years**  
(Trillion Btu)

Fiscal Year <sup>a</sup>	Coal	Natural Gas <sup>b</sup>	Petroleum						Other Mobility Fuels <sup>f</sup>	Electricity	Purchased Steam and Other <sup>g</sup>	Total
			Aviation Gasoline	Fuel Oil <sup>c</sup>	Jet Fuel	LPG <sup>d</sup>	Motor Gasoline <sup>e</sup>	Total				
1975	77.9	166.2	22.0	376.0	707.4	5.6	63.2	1,174.2	0.0	141.5	5.1	1,565.0
1976	71.3	151.8	11.6	329.7	610.0	4.7	60.4	1,016.4	.0	139.3	4.6	1,383.4
1977	68.4	141.2	8.8	348.5	619.2	4.1	61.4	1,042.1	.0	141.1	5.7	1,398.5
1978	66.0	144.7	6.2	332.3	601.1	3.0	60.1	1,002.9	.0	141.0	6.4	1,360.9
1979	65.1	148.9	4.7	327.1	618.6	3.7	59.1	1,013.1	.0	141.2	7.1	1,375.4
1980	63.5	147.3	4.9	307.7	638.7	3.8	56.5	1,011.6	.2	141.9	6.8	1,371.2
1981	65.1	142.2	4.6	351.3	653.3	3.5	53.2	1,066.0	.2	144.5	6.2	1,424.2
1982	68.6	146.2	3.6	349.4	672.7	3.7	53.1	1,082.5	.2	147.5	6.2	1,451.4
1983	62.4	147.8	2.6	329.5	673.4	3.8	51.6	1,060.8	.2	151.5	9.0	1,431.8
1984	65.3	157.4	1.9	342.9	693.7	3.9	51.2	1,093.6	.2	155.9	10.1	1,482.5
1985	64.8	149.9	1.9	292.6	705.7	3.8	50.4	1,054.3	.2	167.2	13.9	1,450.3
1986	63.8	140.9	1.4	271.6	710.2	3.6	45.3	1,032.1	.3	155.8	13.7	1,406.7
1987	67.0	145.6	1.0	319.5	702.3	3.6	43.1	1,069.5	.4	169.9	13.9	1,466.3
1988	60.2	144.6	6.0	284.8	617.2	2.7	41.2	951.9	.4	171.2	32.0	1,360.3
1989	48.7	152.4	.8	245.3	761.7	3.5	41.1	1,052.4	2.2	188.6	20.6	1,464.7
1990	44.3	159.4	.5	245.2	732.4	3.8	37.2	1,019.1	2.6	193.6	19.1	1,438.0
1991	45.9	154.1	.4	232.6	774.5	3.0	34.1	1,044.7	6.0	192.7	18.3	1,461.7
1992	51.7	151.2	1.0	200.6	628.2	3.0	35.6	868.4	8.4	192.5	22.5	1,294.8
1993	38.3	152.9	.7	187.0	612.4	3.5	34.5	838.1	5.8	193.1	18.6	1,246.8
1994	35.0	143.9	.6	198.5	550.7	3.2	29.5	782.6	7.7	190.9	18.2	1,178.2
1995	31.7	149.4	.3	178.4	522.3	3.0	31.9	735.9	8.4	184.8	18.2	1,128.5
1996	23.3	147.3	.2	170.5	513.0	3.1	27.6	714.4	18.7	184.0	20.1	1,107.7
1997	22.5	153.8	.3	180.0	475.7	2.6	39.0	697.6	14.5	183.6	19.2	1,091.2
1998	23.9	140.4	.2	174.5	445.5	3.5	43.0	666.8	5.9	181.4	18.8	1,037.1
1999	21.2	137.4	.1	162.1	444.7	2.4	41.1	650.4	.4	180.0	21.5	1,010.9
2000	22.7	133.8	.2	171.3	403.1	2.5	43.9	621.0	1.8	193.6	20.2	993.1
2001	18.8	133.7	.2	176.9	415.2	3.1	42.5	638.0	4.8	188.4	18.6	1,002.3
2002	16.9	133.7	.2	165.6	472.9	2.8	41.3	682.8	3.2	188.3	18.5	1,043.4
2003	18.1	135.5	.3	190.8	517.9	3.2	46.3	758.4	3.3	193.8	23.2	1,132.3
2004	17.4	135.3	.2	261.4	508.2	2.9	44.1	816.9	3.1	197.1	22.0	1,191.7
2005	17.1	135.7	.4	241.4	492.2	3.4	48.8	786.1	5.6	197.6	24.3	1,166.4
2006	23.5	132.6	.6	209.3	442.6	2.7	48.3	703.6	2.1	196.7	18.2	1,076.4
2007	20.4	131.5	.4	212.9	461.1	2.7	46.5	723.7	2.9	194.9	16.7	1,090.2
2008	20.8	129.6	.4	198.4	525.4	2.3	49.0	775.4	3.6	196.1	17.7	1,143.2
2009	20.3	131.7	.3	166.4	505.7	3.2	48.3	723.9	10.1	191.3	17.7	1,094.8
2010	20.0	130.1	.4	157.8	535.8	2.5	51.3	747.7	3.0	193.7	18.2	1,112.7
2011	18.5	124.7	.9	166.5	533.6	2.0	52.7	755.8	2.7	193.2	19.1	1,114.1
2012	15.9	116.2	.4	148.6	493.5	1.7	50.1	694.4	3.1	187.2	22.5	1,039.3
2013	14.3	122.5	.7	140.0	424.0	1.9	46.6	613.2	2.8	184.7	21.8	959.3
2014	13.5	125.6	.3	133.5	414.3	1.8	44.9	594.8	3.6	182.1	21.9	941.5
2015	12.6	122.2	.3	134.4	418.9	1.8	46.8	602.2	3.7	184.3	20.9	945.8
2016	10.2	115.4	.3	129.7	403.9	1.7	46.5	582.2	3.6	184.5	21.4	917.2
2017	9.1	115.1	.3	133.9	400.1	1.5	46.4	582.3	3.9	181.7	23.0	915.1

<sup>a</sup> For 1975 and 1976, the U.S. Government's fiscal year was July 1 through June 30. Beginning in 1977, the U.S. Government's fiscal year is October 1 through September 30 (for example, fiscal year 2014 is October 2013 through September 2014).

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

<sup>c</sup> Distillate fuel oil, including diesel fuel; and residual fuel oil, including Navy Special.

<sup>d</sup> Liquefied petroleum gases, primarily propane.

<sup>e</sup> Includes E10 (a mixture of 10% ethanol and 90% motor gasoline) and E15 (a mixture of 15% ethanol and 85% motor gasoline).

<sup>f</sup> Other types of fuel used in vehicles and equipment. Primarily includes alternative fuels such as compressed natural gas (CNG); liquefied natural gas (LNG); E85 (a mixture of 85% ethanol and 15% motor gasoline); B20 (a mixture of 20% biodiesel and 80% diesel fuel); B100 (100% biodiesel); hydrogen; and methanol.

<sup>g</sup> Other types of energy used in facilities. Primarily includes chilled water, but also includes small amounts of renewable energy such as wood and solar thermal.

Notes: • Data in this table are developed using conversion factors that often differ from those in Tables A1–A6. • Data include energy consumed at foreign installations and in foreign operations, including aviation and ocean bunkering, primarily by the U.S. Department of Defense. U.S. Government energy use for electricity generation and uranium enrichment is excluded. • Totals may not equal sum of components due to independent rounding.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#consumption> (Excel and CSV files) for all annual data beginning in 1975.

Source: U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, Federal Energy Management Program. See <http://ctsedweb.ee.doe.gov/Annual/Report/Report.aspx>, "A-5 Historical Federal Energy Consumption and Cost Data by Agency and Energy Type (FY 1975 to Present)".

## Energy Consumption by Sector

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

### Table 2.2 Sources

#### *Coal*

1949–2007: Residential sector coal consumption data from Table 6.2 are converted to Btu by multiplying by the residential and commercial sectors coal consumption heat content factors in Table A5.

#### *Natural Gas*

1949–1979: Residential sector natural gas (including supplemental gaseous fuels) consumption data from Table 4.3 are converted to Btu by multiplying by the natural gas end-use sectors consumption heat content factors in Table A4.

1980 forward: Residential sector natural gas (including supplemental gaseous fuels) consumption data from Table 4.3 are converted to Btu by multiplying by the natural gas end-use sectors consumption heat content factors in Table A4. The residential sector portion of supplemental gaseous fuels data in Btu is estimated using the method described in Note 3, "Supplemental Gaseous Fuels," at the end of Section 4. Residential sector natural gas (excluding supplemental gaseous fuels) consumption is equal to residential sector natural gas (including supplemental gaseous fuels) consumption minus the residential sector portion of supplemental gaseous fuels.

#### *Petroleum*

1949 forward: Table 3.8a.

#### *Fossil Fuels Total*

1949–2007: Residential sector total fossil fuels consumption is the sum of the residential sector consumption values for coal, natural gas, and petroleum.



2008 forward: Residential sector total fossil fuels consumption is the sum of the residential sector consumption values for natural gas and petroleum.

### *Renewable Energy*

1949 forward: Table 10.2a.

### *Total Primary Energy Consumption*

1949 forward: Residential sector total primary energy consumption is the sum of the residential sector consumption values for fossil fuels and renewable energy.

### *Electricity Retail Sales*

1949 forward: Residential sector electricity retail sales from Table 7.6 are converted to Btu by multiplying by the electricity heat content factor in Table A6.

### *Electrical System Energy Losses*

1949 forward: Total electrical system energy losses are equal to electric power sector total primary energy consumption from Table 2.6 minus total electricity retail sales from Table 7.6 (converted to Btu by multiplying by the electricity heat content factor in Table A6). Total electrical system energy losses are allocated to the residential sector in proportion to the residential sector's share of total electricity retail sales from Table 7.6. See Note 1, "Electrical System Energy Losses."

### *Total Energy Consumption*

1949 forward: Residential sector total energy consumption is the sum of the residential sector consumption values for total primary energy, electricity retail sales, and electrical system energy losses.

## Table 2.3 Sources

### *Coal*

1949 forward: Commercial sector coal consumption data from Table 6.2 are converted to Btu by multiplying by the residential and commercial sectors coal consumption heat content factors in Table A5.

### *Natural Gas*

1949–1979: Commercial sector natural gas (including supplemental gaseous fuels) consumption data from Table 4.3 are converted to Btu by multiplying by the natural gas end-use sectors consumption heat content factors in Table A4.

1980 forward: Commercial sector natural gas (including supplemental gaseous fuels) consumption data from Table 4.3 are converted to Btu by multiplying by the natural gas end-use sectors consumption heat content factors in Table A4. The commercial sector portion of supplemental gaseous fuels data in Btu is estimated using the method described in Note 3, "Supplemental Gaseous Fuels," at the end of Section 4. Commercial sector natural gas (excluding supplemental gaseous fuels) consumption is equal to commercial sector natural gas (including supplemental gaseous fuels) consumption minus the commercial sector portion of supplemental gaseous fuels.

### *Petroleum*

1949–1992: Table 3.8a.

1993–2008: The commercial sector share of motor gasoline consumption is equal to commercial sector motor gasoline consumption from Table 3.7a divided by motor gasoline product supplied from Table 3.5. Commercial sector fuel ethanol (including denaturant) consumption is equal to total fuel ethanol (including denaturant) consumption from Table 10.3 multiplied by the commercial sector share of motor gasoline consumption. Commercial sector petroleum (excluding biofuels) consumption is equal to commercial sector petroleum (including biofuels) consumption from Table 3.8a minus commercial sector fuel ethanol (including denaturant) consumption.

2009 forward: Commercial sector fuel ethanol (minus denaturant) consumption is equal to total fuel ethanol (minus denaturant) consumption from Table 10.3 multiplied by the commercial sector share of motor gasoline consumption (see 1993–2008 sources above). Commercial sector petroleum (excluding biofuels) consumption is equal to commercial sector petroleum (including biofuels) consumption from Table 3.8a minus commercial sector fuel ethanol (minus denaturant) consumption.

### *Fossil Fuels Total*

1949 forward: Commercial sector total fossil fuels consumption is the sum of the commercial sector consumption values for coal, natural gas, and petroleum.

### *Renewable Energy*

1949 forward: Table 10.2a.

### *Total Primary Energy Consumption*

1949 forward: Commercial sector total primary energy consumption is the sum of the commercial sector consumption values for fossil fuels and renewable energy.

### *Electricity Retail Sales*

1949 forward: Commercial sector electricity retail sales from Table 7.6 are converted to Btu by multiplying by the electricity heat content factor in Table A6.

### *Electrical System Energy Losses*

1949 forward: Total electrical system energy losses are equal to electric power sector total primary energy consumption from Table 2.6 minus total electricity retail sales from Table 7.6 (converted to Btu by multiplying by the electricity heat content factor in Table A6). Total electrical system energy losses are allocated to the commercial sector in proportion to the commercial sector's share of total electricity retail sales from Table 7.6. See Note 1, "Electrical System Energy Losses."

### *Total Energy Consumption*

1949 forward: Commercial sector total energy consumption is the sum of the commercial sector consumption values for total primary energy, electricity retail sales, and electrical system energy losses.

## Table 2.4 Sources

### *Coal*

1949 forward: Coke plants coal consumption from Table 6.2 is converted to Btu by multiplying by the coke plants coal consumption heat content factors in Table A5. Other industrial coal consumption from Table 6.2 is converted to Btu by multiplying by the other industrial coal consumption heat content factors in Table A5. Industrial sector coal consumption is equal to coke plants coal consumption and other industrial coal consumption.

### *Natural Gas*

1949–1979: Industrial sector natural gas (including supplemental gaseous fuels) consumption data from Table 4.3 are converted to Btu by multiplying by the natural gas end-use sectors consumption heat content factors in Table A4.

1980 forward: Industrial sector natural gas (including supplemental gaseous fuels) consumption data from Table 4.3 are converted to Btu by multiplying by the natural gas end-use sectors consumption heat content factors in Table A4. The industrial sector portion of supplemental gaseous fuels data in Btu is estimated using the method described in Note 3, "Supplemental Gaseous Fuels," at the end of Section 4. Industrial sector natural gas (excluding supplemental gaseous fuels) consumption is equal to industrial sector natural gas (including supplemental gaseous fuels) consumption minus the industrial sector portion of supplemental gaseous fuels.

### *Petroleum*

1949–1992: Table 3.8b.

1993–2008: The industrial sector share of motor gasoline consumption is equal to industrial sector motor gasoline consumption from Table 3.7b divided by motor gasoline product supplied from Table 3.5. Industrial sector fuel ethanol (including denaturant) consumption is equal to total fuel ethanol (including denaturant) consumption from Table 10.3 multiplied by the industrial sector share of motor gasoline consumption. Industrial sector petroleum (excluding biofuels) consumption is equal to industrial sector petroleum (including biofuels) consumption from Table 3.8b minus industrial sector fuel ethanol (including denaturant) consumption.

2009 forward: Industrial sector fuel ethanol (minus denaturant) consumption is equal to total fuel ethanol (minus denaturant) consumption from Table 10.3 multiplied by the industrial sector share of motor gasoline consumption (see 1993–2008 sources above). Industrial sector petroleum (excluding biofuels) consumption is equal to industrial sector petroleum (including biofuels) consumption from Table 3.8b minus industrial sector fuel ethanol (minus denaturant) consumption.

### *Coal Coke Net Imports*

1949 forward: Coal coke net imports are equal to coal coke imports from Table 1.4a minus coal coke exports from Table 1.4b.

### *Fossil Fuels Total*

1949 forward: Industrial sector total fossil fuels consumption is the sum of the industrial sector consumption values for coal, natural gas, and petroleum, plus coal coke net imports.

### *Renewable Energy*

1949 forward: Table 10.2b.

### *Total Primary Energy Consumption*

1949 forward: Industrial sector total primary energy consumption is the sum of the industrial sector consumption values for fossil fuels and renewable energy.

### *Electricity Retail Sales*

1949 forward: Industrial sector electricity retail sales from Table 7.6 are converted to Btu by multiplying by the electricity heat content factor in Table A6.

### *Electrical System Energy Losses*

1949 forward: Total electrical system energy losses are equal to electric power sector total primary energy consumption from Table 2.6 minus total electricity retail sales from Table 7.6 (converted to Btu by multiplying by the electricity heat content factor in Table A6). Total electrical system energy losses are allocated to the industrial sector in proportion to the industrial sector's share of total electricity retail sales from Table 7.6. See Note 1, "Electrical System Energy Losses."

### *Total Energy Consumption*

1949 forward: Industrial sector total energy consumption is the sum of the industrial sector consumption values for total primary energy, electricity retail sales, and electrical system energy losses.

## Table 2.5 Sources

### *Coal*

1949–1977: Transportation sector coal consumption data from Table 6.2 are converted to Btu by multiplying by the other industrial sector coal consumption heat content factors in Table A5.

### *Natural Gas*

1949 forward: Transportation sector natural gas consumption data from Table 4.3 are converted to Btu by multiplying by the natural gas end-use sectors consumption heat content factors in Table A4.

### *Petroleum*

1949–1992: Table 3.8c.

1993–2008: The transportation sector share of motor gasoline consumption is equal to transportation sector motor gasoline consumption from Table 3.7c divided by motor gasoline product supplied from Table 3.5. Transportation sector fuel ethanol (including denaturant) consumption is equal to total fuel ethanol (including denaturant) consumption from Table 10.3 multiplied by the transportation sector share of motor gasoline consumption. Transportation sector petroleum (excluding biofuels) consumption is equal to transportation sector petroleum (including biofuels) consumption from Table 3.8c minus transportation sector fuel ethanol (including denaturant) consumption.

2009–2011: Transportation sector fuel ethanol (minus denaturant) consumption is equal to total fuel ethanol (minus denaturant) consumption from Table 10.3 multiplied by the transportation sector share of motor gasoline consumption (see 1993–2008 sources above). Transportation sector petroleum (excluding biofuels) consumption is equal to: transportation sector petroleum (including biofuels) consumption from Table 3.8c; minus transportation sector fuel ethanol (minus denaturant) consumption; minus biodiesel consumption (calculated using biodiesel data from U.S. Energy Information Administration (EIA), EIA-22M, "Monthly Biodiesel Production Survey"; and biomass-based diesel fuel data from EIA-810, "Monthly Refinery Report," EIA-812, "Monthly Product Pipeline Report," and EIA-815, "Monthly Bulk Terminal and Blender Report" (the data are converted to Btu by multiplying by the biodiesel heat content factor in Table A1); minus other renewable diesel fuel and other renewables fuels consumption from Table 10.4.

2012 forward: Transportation sector fuel ethanol (minus denaturant) consumption is equal to total fuel ethanol (minus denaturant) consumption from Table 10.3 multiplied by the transportation sector share of motor gasoline consumption (see 1993–2008 sources above). Transportation sector petroleum (excluding biofuels) consumption is equal to: transportation sector petroleum (including biofuels) consumption from Table 3.8c; minus transportation sector fuel ethanol (minus denaturant) consumption; minus biodiesel consumption from Table 10.4; minus other renewable diesel fuel and other renewables fuels consumption from Table 10.4.

### *Fossil Fuels Total*

1949–1977: Transportation sector total fossil fuels consumption is the sum of the transportation sector consumption values for coal, natural gas, and petroleum.

1978 forward: Transportation sector total fossil fuels consumption is the sum of the transportation sector consumption values for natural gas and petroleum.

### *Renewable Energy*

1981 forward: Table 10.2b.

#### Total Primary Energy Consumption

1949–1980: Transportation sector total primary energy consumption is equal to transportation sector fossil fuels consumption.

1981 forward: Transportation sector total primary energy consumption is the sum of the transportation sector consumption values for fossil fuels and renewable energy.

### *Electricity Retail Sales*

1949 forward: Transportation sector electricity retail sales from Table 7.6 are converted to Btu by multiplying by the electricity heat content factor in Table A6.

### *Electrical System Energy Losses*

1949 forward: Total electrical system energy losses are equal to electric power sector total primary energy consumption from Table 2.6 minus total electricity retail sales from Table 7.6 (converted to Btu by multiplying by the electricity heat content factor in Table A6). Total electrical system energy losses are allocated to the transportation sector in proportion to the transportation sector's share of total electricity retail sales from Table 7.6. See Note 1, "Electrical System Energy Losses."

### *Total Energy Consumption*

1949 forward: Transportation sector total energy consumption is the sum of the transportation sector consumption values for total primary energy, electricity retail sales, and electrical system energy losses.

## Table 2.6 Sources

### *Coal*

1949 forward: Electric power sector coal consumption data from Table 6.2 are converted to Btu by multiplying by the electric power sector coal consumption heat content factors in Table A5.

### *Natural Gas*

1949–1979: Electric power sector natural gas (including supplemental gaseous fuels) consumption data from Table 4.3 are converted to Btu by multiplying by the natural gas electric power sector consumption heat content factors in Table A4.

1980 forward: Electric power sector natural gas (including supplemental gaseous fuels) consumption data from Table 4.3 are converted to Btu by multiplying by the natural gas electric power sector consumption heat content factors in Table A4. The electric power sector portion of supplemental gaseous fuels data in Btu is estimated using the method described in Note 3, "Supplemental Gaseous Fuels," at the end of Section 4. Electric power sector natural gas (excluding supplemental gaseous fuels) consumption is equal to electric power sector natural gas (including supplemental gaseous fuels) consumption minus the electric power sector portion of supplemental gaseous fuels.

### *Petroleum*

1949 forward: Table 3.8c.

### *Fossil Fuels Total*

1949 forward: Electric power sector total fossil fuels consumption is the sum of the electric power sector consumption values for coal, natural gas, and petroleum.

### *Nuclear Electric Power*

1949 forward: Nuclear electricity net generation data from Table 7.2a are converted to Btu by multiplying by the nuclear heat rate factors in Table A6.

### *Renewable Energy*

1949 forward: Table 10.2c.

### *Electricity Net Imports*

1949 forward: Electricity net imports are equal to electricity imports from Table 1.4a minus electricity exports from Table 1.4b.

### *Total Primary Energy Consumption*

1949 forward: Electric power sector total primary energy consumption is the sum of the electric power sector consumption values for fossil fuels, nuclear electric power, and renewable energy, plus electricity net imports.