Table CT1. Energy Consumption Estimates for Selected Energy Sources in Physical Units, Selected Years, 1960-2019, Iowa

Year	Coal	Natural Gas [a]	Petroleum							Nuclear Electric Power	Hydro-electric Power [g]	Fuel Ethanol [h]	Biodiesel
			Distillate Fuel Oil [b]	HGL [c]	Jet Fuel [d]	Motor Gasoline [e]	Residual Fuel Oil	Other [f]	Total				
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels							Million Kilowatthours		Thousand Barrels	
1960	5,258	187	11,163	5,017	195	29,463	1,071	6,288	53,197	0	881	NA	NA
1965	5,722	248	11,068	7,448	232	30,792	531	5,690	55,760	0	928	NA	NA
1970	6,166	349	13,677	11,038	725	35,701	401	4,986	66,528	0	935	NA	NA
1971	5,896	345	14,257	11,139	655	37,325	414	4,910	68,698	0	913	NA	NA
1972	6,945	345	14,941	12,506	730	38,404	509	4,948	72,038	0	993	NA	NA
1973	7,026	365	15,531	12,692	710	42,104	572	4,645	76,253	0	906	NA	NA
1974	6,173	368	14,825	13,369	749	38,847	697	4,535	73,022	1,330	891	NA	NA
1975	6,407	346	14,553	13,645	835	39,042	608	3,966	72,649	2,291	879	NA	NA
1976	8,311	311	15,088	18,586	964	40,738	931	4,679	80,987	2,479	645	NA	NA
1977	9,175	280	15,977	17,854	1,004	41,237	1,096	4,853	82,020	2,888	780	NA	NA
1978	10,110	238	16,915	15,698	1,127	40,927	921	5,160	80,749	1,209	930	NA	NA
1979	11,352	292	20,711	14,686	1,039	38,501	1,216	5,723	81,876	2,889	898	NA	NA
1980	12,340	270	15,930	11,167	813	35,394	415	3,805	67,523	2,563	946	NA	NA
1981	13,483	253	14,513	9,891	717	34,274	98	3,750	63,242	2,204	982	528	NA
1982	13,033	237	16,235	11,953	635	33,030	334	3,598	65,785	2,269	918	1,185	NA
1983	13,540	221	14,099	12,026	591	32,386	207	2,973	62,283	2,309	920	1,186	NA
1984	13,624	235	15,716	7,336	615	32,223	140	3,353	59,383	2,700	918	1,025	NA
1985	14,342	226	15,823	8,507	592	31,465	182	3,409	59,979	1,927	989	820	NA
1986	13,862	207	16,214	8,774	595	31,355	508	3,269	60,714	2,993	953	836	NA
1987	15,191	203	16,531	6,098	779	31,687	117	3,086	58,298	2,523	971	967	NA
1988	16,114	239	16,333	6,612	713	32,509	258	3,477	59,901	3,163	699	979	NA
1989	17,126	226	15,600	7,174	750	32,574	182	2,903	59,183	3,139	672	1,116	NA
1990	18,080	219	15,784	6,355	891	31,684	124	2,741	57,579	3,012	875	885	NA
1991	18,905	234	14,513	7,255	892	32,471	96	2,767	57,995	4,147	901	1,102	NA
1992	18,143	232	16,066	8,978	803	31,713	106	2,671	60,337	3,405	1,000	1,366	NA
1993	19,328	248	16,699	15,651	720	32,703	162	2,676	68,612	3,235	747	1,611	NA
1994	19,460	248	17,293	15,663	897	33,887	179	3,224	71,143	4,107	1,071	1,849	NA
1995	20,728	261	17,748	16,989	1,046	34,418	92	2,857	73,150	3,730	1,003	1,811	NA
1996	21,301	272	19,793	11,344	819	35,909	94	3,315	71,274	3,924	935	1,158	NA
1997	21,798	254	19,652	10,296	793	35,577	71	3,936	70,325	4,149	805	1,410	NA
1998	23,275	232	20,058	14,882	1,186	36,973	88	3,631	76,817	3,768	913	1,744	NA
1999	23,590	231	19,588	18,746	885	36,993	100	4,550	80,861	3,640	946	1,888	NA
2000	24,480	233	19,261	19,621	771	36,753	143	3,915	80,464	4,453	904	2,217	NA
2001	24,398	224	20,101	16,127	777	36,768	44	3,072	76,889	3,853	845	2,330	4
2002	24,676	226	19,706	18,317	782	38,004	62	3,593	80,464	4,574	946	2,391	6
2003	24,868	230	18,930	13,337	793	38,249	150	3,385	74,843	3,988	789	2,555	5
2004	24,975	227	20,407	18,974	910	39,445	282	4,115	84,132	4,929	946	2,701	10
2005	24,276	241	20,560	20,881	990	39,215	194	4,299	86,138	4,538	960	842	34
2006	24,607	238	21,313	21,192	1,033	40,429	47	3,828	87,842	5,095	909	765	98
2007	26,350	293	22,873	16,893	899	40,251	44	3,375	84,336	4,519	962	1,320	133
2008	27,894	326	23,026	20,523	786	39,281	170	3,246	87,034	5,282	819	2,356	114
2009	25,554	315	22,227	21,389	525	39,588	66	2,781	86,575	4,679	971	2,295	121
2010	28,393	311	23,781	19,838	R 956	40,808	24	2,360	R 87,766	4,451	948	3,882	98
2011	26,466	307	24,092	19,308	R 964	41,028	32	2,241	R 87,664	5,215	925	4,073	333
2012	24,305	295	23,929	15,584	R 1,005	38,519	11	2,381	R 81,428	4,347	766	3,784	554
2013	23,160	326	24,058	R 20,678	R 967	39,115	6	3,156	R 87,981	5,321	749	3,718	690
2014	23,008	329	25,199	R 20,899	R 963	39,744	6	3,163	R 89,975	4,152	879	4,090	794
2015	19,863	318	25,689	R 18,900	R 1,063	39,469	0	2,874	R 87,996	5,243	960	4,540	893
2016	16,904	330	26,020	R 19,059	R 1,060	41,192	1	R 2,944	R 90,276	4,703	917	4,683	1,091
2017	17,011	391	25,897	R 19,139	R 1,161	37,618	17	R 3,054	R 86,885	5,214	1,034	4,325	1,369
2018	18,734	443	26,247	R 21,797	R 1,158	37,266	11	R 2,799	R 89,278	4,895	925	4,239	1,382
2019	15,212	437	27,369	23,688	1,152	36,991	16	2,748	91,964	5,236	796	4,273	1,570

[a] Includes supplemental gaseous fuels that are commingled with natural gas.
[b] Beginning in 2009, includes biodiesel blended into distillate fuel oil.
[c] Hydrocarbon gas liquids, include natural gas liquids and refinery olefins.
[d] Through 2004, includes kerosene-type and naphtha-type jet fuel. Beginning in 2005, includes kerosene-type jet fuel only; naphtha-type jet fuel is included in "Other Petroleum."
[e] Beginning in 1993, includes fuel ethanol blended into motor gasoline.
[f] Includes asphalt and road oil, aviation gasoline, kerosene, lubricants, petroleum coke, and the "other petroleum products" category. See Technical Notes, Section 4.
[g] Conventional hydroelectric power. For 1960 through 1989, includes pumped-storage hydroelectricity, which cannot be separately identified.
[h] Includes denaturant. Because of differences in data sources and estimation methods, the ratio of fuel ethanol consumption and motor gasoline consumption should not be interpreted as the average ethanol blend rate.
NA = Not available.
Where shown, R = Revised data and (s) = Value less than 0.5.
Notes: Totals may not equal sum of components due to independent rounding. · The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the Technical Notes for each type of energy.
Web Page: All data are available at https://www.eia.gov/state/seds/seds-data-complete.php.
Sources: Data sources, estimation procedures, and assumptions are described in the Technical Notes.

Table CT2. Primary Energy Consumption Estimates, Selected Years, 1960-2019, Iowa

(Trillion Btu)

Year	Fossil Fuels										*Fossil Fuels (as commingled)*		
			Petroleum										
	Coal	Natural Gas excluding Supplemental Gaseous Fuels [a]	Distillate Fuel Oil excluding Biodiesel [a]	HGL [b]	Jet Fuel [c]	Motor Gasoline excluding Fuel Ethanol [a]	Residual Fuel Oil	Other [d]	Total	Total	*Natural Gas including Supplemental Gaseous Fuels* [a]	*Distillate Fuel Oil including Biodiesel* [a]	*Motor Gasoline including Fuel Ethanol* [a]
1960	115.9	193.7	65.0	19.2	1.0	154.8	6.7	38.2	285.0	594.6	*193.7*	*65.0*	*154.8*
1965	126.6	250.0	64.5	28.5	1.3	161.7	3.3	34.6	293.9	670.5	*250.0*	*64.5*	*161.7*
1970	130.9	351.8	79.7	41.8	4.1	187.5	2.5	31.0	346.6	829.2	*351.8*	*79.7*	*187.5*
1971	124.7	347.7	83.0	42.2	3.7	196.1	2.6	30.7	358.3	830.7	*347.7*	*83.0*	*196.1*
1972	144.9	347.6	87.0	47.2	4.1	201.7	3.2	30.8	374.1	866.6	*347.6*	*87.0*	*201.7*
1973	148.7	369.0	90.5	47.7	4.0	221.2	3.6	28.9	395.8	913.5	*369.0*	*90.5*	*221.2*
1974	128.2	371.6	86.4	49.9	4.2	204.1	4.4	28.1	377.0	876.8	*371.6*	*86.4*	*204.1*
1975	131.6	348.6	84.8	50.7	4.7	205.1	3.8	24.7	373.7	853.9	*348.6*	*84.8*	*205.1*
1976	169.5	313.9	87.9	68.2	5.4	214.0	5.9	29.0	410.4	893.8	*313.9*	*87.9*	*214.0*
1977	185.1	281.4	93.1	64.8	5.6	216.6	6.9	30.1	417.1	883.7	*281.4*	*93.1*	*216.6*
1978	201.3	238.8	98.5	57.0	6.3	215.0	5.8	32.1	414.7	854.8	*238.8*	*98.5*	*215.0*
1979	219.4	292.2	120.6	53.8	5.9	202.2	7.6	35.6	425.8	937.4	*292.2*	*120.6*	*202.2*
1980	234.4	270.3	92.8	40.8	4.6	185.9	2.6	23.3	350.0	854.8	*270.4*	*92.8*	*185.9*
1981	252.1	253.9	84.5	36.0	4.0	180.0	0.6	23.3	328.5	834.5	*254.0*	*84.5*	*180.0*
1982	243.9	238.9	94.6	42.9	3.6	173.5	2.1	22.4	339.0	821.8	*239.0*	*94.6*	*173.5*
1983	253.7	223.6	82.1	43.4	3.3	170.1	1.3	18.5	318.8	796.0	*223.6*	*82.1*	*170.1*
1984	251.5	238.3	91.5	26.6	3.4	169.3	0.9	20.9	312.6	802.5	*238.4*	*91.5*	*169.3*
1985	268.8	191.6	92.2	30.6	3.3	165.3	1.1	21.4	313.9	774.3	*228.4*	*92.2*	*165.3*
1986	262.1	163.6	94.4	32.0	3.3	164.7	3.2	20.6	318.2	744.0	*209.0*	*94.4*	*164.7*
1987	287.3	157.9	96.3	22.4	4.4	166.5	0.7	19.3	309.6	754.8	*204.7*	*96.3*	*166.5*
1988	306.1	196.3	95.1	24.4	4.0	170.8	1.6	22.0	317.9	820.4	*240.8*	*95.1*	*170.8*
1989	317.7	178.6	90.9	26.6	4.2	171.1	1.1	18.2	312.2	808.5	*228.2*	*90.9*	*171.1*
1990	335.0	172.1	91.9	23.2	5.0	166.4	0.8	17.2	304.5	811.7	*220.4*	*91.9*	*166.4*
1991	349.3	188.1	84.5	26.5	5.0	170.6	0.6	17.3	304.5	841.9	*235.8*	*84.5*	*170.6*
1992	329.3	179.6	93.6	32.6	4.5	166.6	0.7	16.6	314.5	823.4	*232.5*	*93.6*	*166.6*
1993	344.1	196.7	97.3	55.6	4.1	165.0	1.0	16.6	339.5	880.2	*248.8*	*97.3*	*170.6*
1994	348.9	198.5	100.6	56.2	5.1	170.3	1.1	20.3	353.6	901.1	*250.5*	*100.6*	*176.7*
1995	372.3	210.5	103.3	60.6	5.9	172.8	0.6	17.9	361.1	943.9	*262.5*	*103.3*	*179.1*
1996	383.7	223.1	115.2	41.6	4.6	183.1	0.6	20.9	366.0	972.8	*274.0*	*115.2*	*187.1*
1997	391.7	208.4	114.4	37.8	4.5	180.3	0.4	25.0	362.4	962.5	*256.8*	*114.4*	*185.2*
1998	424.9	184.9	116.7	53.2	6.7	186.3	0.6	22.8	386.3	996.1	*234.6*	*116.7*	*192.4*
1999	432.0	201.5	114.0	67.0	5.0	185.9	0.6	28.7	401.2	1,034.6	*235.1*	*114.0*	*192.4*
2000	445.9	203.0	112.1	69.7	4.4	183.5	0.9	24.7	395.3	1,044.2	*233.7*	*112.1*	*191.2*
2001	443.9	193.4	117.0	57.0	4.4	183.1	0.3	19.5	381.2	1,018.6	*225.2*	*117.0*	*191.2*
2002	441.5	194.0	114.7	65.0	4.4	189.3	0.4	22.8	396.6	1,032.2	*227.1*	*114.7*	*197.6*
2003	444.6	197.6	110.2	48.1	4.5	189.9	0.9	21.6	375.2	1,017.4	*230.9*	*110.2*	*198.8*
2004	443.2	198.0	118.7	67.1	5.2	195.6	1.8	26.4	414.8	1,056.0	*227.5*	*118.7*	*205.0*
2005	429.8	210.7	119.6	73.7	5.6	200.7	1.2	27.6	428.5	1,069.0	*242.8*	*119.6*	*203.6*
2006	435.2	207.2	123.7	74.5	5.9	207.0	0.3	24.4	435.7	1,078.0	*241.3*	*123.7*	*209.6*
2007	465.2	264.2	132.3	59.5	5.1	202.4	0.3	21.3	420.9	1,150.3	*296.2*	*132.3*	*207.0*
2008	485.2	297.4	133.1	72.2	4.5	192.4	1.1	20.6	423.8	1,206.4	*329.0*	*133.1*	*200.6*
2009	444.6	284.0	127.8	74.4	3.0	193.6	0.4	17.7	416.8	1,145.4	*317.4*	*128.4*	*201.5*
2010	493.8	278.8	136.8	66.7	R 5.4	193.3	0.1	14.8	R 417.2	R 1,189.8	*312.9*	*137.3*	*206.8*
2011	463.1	277.6	137.2	64.7	R 5.5	193.6	0.2	14.1	R 415.3	R 1,156.0	*309.7*	*139.0*	*207.7*
2012	422.6	266.3	135.0	52.8	R 5.7	181.9	0.1	15.2	R 390.6	R 1,079.5	*299.3*	*138.0*	*195.0*
2013	402.4	306.4	135.0	69.9	R 5.5	185.0	(s)	19.5	R 414.8	R 1,123.6	*335.6*	*138.6*	*197.9*
2014	401.2	311.4	141.0	R 70.7	R 5.5	186.9	(s)	19.4	R 423.4	R 1,135.9	*342.6*	*145.2*	*201.1*
2015	348.3	302.9	143.2	R 63.0	R 6.0	183.8	0.0	17.8	R 413.9	R 1,065.1	*334.7*	*148.0*	*199.6*
2016	298.0	317.1	144.0	R 63.6	R 6.0	192.0	(s)	18.2	R 423.8	R 1,038.9	*348.6*	*149.8*	*208.2*
2017	300.3	376.3	141.8	R 63.9	R 6.6	175.0	0.1	R 18.9	R 406.3	R 1,082.9	*413.0*	*149.1*	*190.1*
2018	325.7	431.5	143.8	74.2	R 6.6	173.6	0.1	R 17.2	R 415.3	R 1,172.5	R *470.2*	*151.2*	*188.3*
2019	266.4	432.1	149.2	81.4	6.5	172.0	0.1	16.8	426.1	1,124.6	*465.7*	*157.6*	*186.9*

[a] Supplemental gaseous fuels (SGF) and biofuels are consumed with natural gas and petroleum products. In this table, SGF and biofuels are removed from natural gas and petroleum so that a fossil fuel total can be calculated without double-counting. Biofuels are included in "Renewable Energy."

[b] Hydrocarbon gas liquids, include natural gas liquids and refinery olefins.

[c] Through 2004, includes kerosene-type and naphtha-type jet fuel. Beginning in 2005, includes kerosene-type jet fuel only; naphtha-type jet fuel is included in "Other Petroleum."

[d] Includes asphalt and road oil, aviation gasoline, kerosene, lubricants, petroleum coke, and the "other petroleum products" category. See Technical Notes, Section 4.

Where shown, R = Revised data and (s) = Value less than +0.05 and greater than -0.05 trillion Btu.

Notes: Totals may not equal sum of components due to independent rounding. · The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the Technical Notes for each type of energy.

Web Page: All data are available at https://www.eia.gov/state/seds/seds-data-complete.php.

Sources: Data sources, estimation procedures, and assumptions are described in the Technical Notes.

Table CT2. Primary Energy Consumption Estimates, Selected Years, 1960-2019, Iowa (Continued)

(Trillion Btu)

Year	Nuclear Electric Power	Renewable Energy										Net Interstate Flow of Electricity [k]	Electricity Net Imports [l]	Total [f]
		Hydro-electric Power [e,f]	Biomass					Geo-thermal [f]	Solar [f,j]	Wind	Total [f]			
			Wood and Waste [f,g]	Fuel Ethanol [h]	Biodiesel	Losses and Co-products [i]	Total [f]							
1960	0.0	9.5	6.4	NA	NA	NA	6.4	0.0	NA	NA	15.9	-8.5	0.0	602.0
1965	0.0	9.7	5.5	NA	NA	NA	5.5	0.0	NA	NA	15.2	11.0	0.0	696.7
1970	0.0	9.8	6.3	NA	NA	NA	6.3	0.0	NA	NA	16.1	5.3	0.0	850.6
1971	0.0	9.6	6.6	NA	NA	NA	6.6	0.0	NA	NA	16.1	15.7	0.0	862.5
1972	0.0	10.3	6.9	NA	NA	NA	6.9	0.0	NA	NA	17.2	20.6	0.0	904.5
1973	0.0	9.4	7.3	NA	NA	NA	7.3	0.0	NA	NA	16.7	32.6	0.0	962.8
1974	14.8	9.3	7.7	NA	NA	NA	7.7	0.0	NA	NA	17.0	41.0	0.0	949.7
1975	25.2	9.1	7.9	NA	NA	NA	7.9	0.0	NA	NA	17.0	45.9	0.0	942.0
1976	27.4	6.7	8.5	NA	NA	NA	8.5	0.0	NA	NA	15.2	42.8	0.0	979.1
1977	31.1	8.1	9.0	NA	NA	NA	9.0	0.0	NA	NA	17.1	48.1	0.0	979.9
1978	13.2	9.6	9.6	NA	NA	NA	9.6	0.0	NA	NA	19.3	74.8	0.0	962.1
1979	31.4	9.3	9.7	NA	NA	NA	9.7	0.0	NA	NA	18.9	51.2	0.0	1,039.0
1980	28.0	9.8	48.7	NA	NA	NA	48.7	0.0	NA	NA	58.6	42.0	0.0	983.3
1981	24.3	10.3	49.6	1.8	NA	2.5	53.9	0.0	NA	NA	64.2	45.7	0.0	968.7
1982	25.1	9.6	50.2	4.1	NA	3.0	57.3	0.0	NA	NA	66.9	55.3	0.0	969.2
1983	25.2	9.7	54.7	4.1	NA	3.6	62.4	0.0	NA	0.0	72.1	59.8	0.0	953.1
1984	29.3	9.6	57.8	3.6	NA	4.7	66.0	0.0	0.0	0.0	75.6	29.5	0.0	936.8
1985	20.5	10.3	58.1	2.8	NA	4.6	65.6	0.0	0.0	0.0	75.9	23.6	3.6	897.9
1986	31.7	10.0	78.6	2.9	NA	8.5	90.0	0.0	0.0	0.0	100.0	26.4	0.0	902.0
1987	26.3	10.1	82.4	3.4	NA	11.8	97.5	0.0	0.0	0.0	107.7	18.1	0.0	906.9
1988	33.5	7.2	89.2	3.4	NA	11.7	104.3	0.0	0.0	0.0	111.5	13.3	0.0	978.7
1989	33.2	7.0	52.6	3.9	NA	14.1	70.6	0.1	(s)	0.0	77.7	21.4	0.0	940.8
1990	31.9	9.1	47.8	3.1	NA	14.0	64.9	0.1	(s)	0.0	74.0	31.7	0.0	949.3
1991	43.5	9.4	47.3	3.8	NA	15.5	66.6	0.1	(s)	0.0	76.1	23.9	0.0	985.4
1992	35.7	10.3	45.7	4.7	NA	19.4	69.8	0.1	(s)	0.0	80.2	37.7	0.0	977.0
1993	34.0	7.7	43.5	5.6	NA	24.0	73.1	0.1	(s)	0.0	80.9	44.8	0.0	1,039.9
1994	42.9	11.0	40.8	6.4	NA	27.0	74.2	0.2	(s)	(s)	85.4	41.8	0.0	1,071.2
1995	39.2	10.3	40.8	6.3	NA	26.7	73.8	0.2	(s)	(s)	84.4	41.9	0.0	1,109.5
1996	41.2	9.7	48.3	4.0	NA	26.5	78.8	0.2	(s)	(s)	88.7	50.0	0.0	1,152.7
1997	43.5	8.2	40.4	4.9	NA	26.3	71.6	0.2	(s)	(s)	80.1	53.2	0.6	1,139.8
1998	39.5	9.3	37.3	6.0	NA	26.1	69.4	0.3	(s)	(s)	79.0	34.0	0.2	1,148.9
1999	38.0	9.7	37.5	6.5	NA	27.0	71.1	0.3	(s)	3.3	84.4	42.5	0.1	1,199.6
2000	46.4	9.2	31.6	7.7	NA	26.9	66.1	0.3	(s)	5.0	80.7	24.8	(s)	1,196.1
2001	40.2	8.7	27.7	8.1	(s)	26.8	62.6	0.3	(s)	5.0	76.7	32.1	(s)	1,167.6
2002	47.8	9.6	30.8	8.3	(s)	26.7	65.9	0.4	(s)	9.3	85.2	32.0	0.0	1,197.2
2003	41.6	8.0	30.5	8.9	(s)	35.8	75.2	0.5	(s)	9.9	93.7	40.2	(s)	1,192.8
2004	51.4	9.5	30.6	9.4	0.1	50.7	90.7	0.6	(s)	10.5	111.3	28.5	(s)	1,247.2
2005	47.4	9.6	31.0	2.9	0.2	64.0	98.1	0.6	(s)	16.5	124.9	37.1	(s)	1,278.3
2006	53.2	9.0	20.9	2.7	0.5	86.1	110.1	0.7	(s)	23.0	142.8	29.0	(s)	1,303.1
2007	47.4	9.5	23.5	4.6	0.7	110.5	139.3	0.8	(s)	27.2	176.9	4.1	(s)	1,378.6
2008	55.2	8.1	23.9	8.2	0.6	131.3	164.0	0.9	(s)	40.2	213.2	-33.0	0.0	1,441.8
2009	48.9	9.5	26.7	7.9	0.6	171.1	206.4	1.0	(s)	72.4	289.4	-35.2	0.0	1,448.5
2010	46.5	9.3	28.3	13.5	0.5	R 192.9	R 235.1	1.2	(s)	89.5	R 335.1	-73.5	0.0	R 1,497.9
2011	54.6	9.0	19.8	14.1	1.8	R 203.4	R 239.0	1.4	(s)	104.1	R 353.5	-57.2	(s)	R 1,506.9
2012	45.6	7.3	17.6	13.1	3.0	R 194.7	R 228.4	1.3	(s)	133.5	R 370.6	-56.8	(s)	R 1,438.8
2013	55.6	7.1	19.6	12.9	3.7	R 195.3	R 231.5	1.3	0.1	148.5	R 388.5	-47.0	0.0	R 1,520.8
2014	43.4	8.4	23.0	14.2	4.3	R 198.0	R 239.4	1.3	0.3	155.1	R 404.4	-45.7	0.0	R 1,538.0
2015	54.8	8.9	21.4	15.8	4.8	R 206.9	R 248.8	1.3	0.4	166.6	R 426.1	-42.3	0.0	R 1,503.7
2016	49.2	8.5	20.5	16.3	5.8	R 209.2	R 251.8	1.3	0.6	185.3	R 447.5	R -6.2	0.0	R 1,529.4
2017	54.5	9.5	R 18.1	15.0	7.3	R 217.5	R 257.9	1.3	0.9	196.9	R 466.5	-38.4	0.0	R 1,565.6
2018	51.2	8.4	R 19.4	14.8	7.4	R 223.6	R 265.2	1.3	1.3	194.2	R 470.4	-68.9	0.0	R 1,625.1
2019	54.7	7.1	20.3	14.9	8.4	217.3	265.0	1.3	1.6	234.2	509.2	-54.2	0.0	1,634.3

[e] Conventional hydroelectric power. For 1960 through 1989, includes pumped-storage hydroelectricity, which cannot be separately identified.

[f] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of renewable energy sources beginning in 1989.

[g] Wood, wood-derived fuels, and biomass waste. Prior to 2001, includes non-biomass waste.

[h] Excludes denaturant. Because of differences in data sources and estimation methods, the ratio of fuel ethanol consumption and motor gasoline consumption should not be interpreted as the average ethanol blend rate. Pre-2005 estimates are not comparable to those for later years. See Section 5 of Technical Notes.

[i] Losses and co-products from the production of biodiesel and fuel ethanol.

[j] Solar thermal and photovoltaic energy.

[k] Includes the energy losses associated with the generation, transmission, and distribution of the electricity flowing across state lines. A positive number indicates that more electricity came into the state than went out of the state during the year. Pre-1990 estimates are not comparable to those for later years. See Section 6 of Technical Notes for an explanation of changes in methodology.

[l] Electricity traded with Canada and Mexico. Calculated by converting net imports in kilowatthours by 3,412 Btu per kilowatthour.

NA = Not available.

Where shown, R = Revised data and (s) = Value less than +0.05 and greater than -0.05 trillion Btu.

Notes: Totals may not equal sum of components due to independent rounding. · The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the Technical Notes for each type of energy.

Web Page: All data are available at https://www.eia.gov/state/seds/seds-data-complete.php.

Sources: Data sources, estimation procedures, and assumptions are described in the Technical Notes.

Table CT3. Total End-Use Energy Consumption Estimates, Selected Years, 1960-2019, Iowa

Year	Coal	Natural Gas [a]	Petroleum							Hydro-electric Power [g,h]	Biomass		Geo-thermal [h]	Solar [h,k]	Electricity Retail Sales	Net Energy [h,l]	Electrical System Energy Losses [m]	Total [h,l]
			Distillate Fuel Oil [b]	HGL [c]	Jet Fuel [d]	Motor Gasoline [e]	Residual Fuel Oil	Other [f]	Total		Wood and Waste [h,i]	Losses and Co-products [j]						
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels							Million Kilowatt-hours					Million Kilowatt-hours			
1960	3,141	139	10,904	5,017	195	29,463	1,033	6,288	52,899	2	– –	– –	– –	– –	8,208	– –	– –	– –
1970	2,136	271	13,350	11,038	725	35,701	352	4,986	66,152	1	– –	– –	– –	– –	15,473	– –	– –	– –
1980	1,595	263	15,762	11,167	813	35,394	352	3,805	67,292	1	– –	– –	– –	– –	24,858	– –	– –	– –
1990	2,599	215	15,660	6,355	891	31,684	124	2,741	57,456	0	– –	– –	– –	– –	29,437	– –	– –	– –
2000	3,163	228	19,038	19,621	771	36,753	143	3,915	80,241	0	– –	– –	– –	– –	39,088	– –	– –	– –
2001	3,093	219	19,883	16,127	777	36,768	44	3,072	76,670	0	– –	– –	– –	– –	39,444	– –	– –	– –
2002	3,173	221	19,570	18,317	782	38,004	62	3,593	80,328	0	– –	– –	– –	– –	40,898	– –	– –	– –
2003	3,187	226	18,718	13,337	793	38,249	150	3,385	74,631	0	– –	– –	– –	– –	41,207	– –	– –	– –
2004	3,102	219	20,230	18,974	910	39,445	282	4,053	83,893	0	– –	– –	– –	– –	40,903	– –	– –	– –
2005	3,204	220	20,205	20,881	990	39,215	194	4,299	85,784	0	– –	– –	– –	– –	42,757	– –	– –	– –
2006	3,370	219	21,043	21,192	1,033	40,429	47	3,628	87,372	0	– –	– –	– –	– –	43,337	– –	– –	– –
2007	3,332	267	22,431	16,893	899	40,251	44	3,119	83,637	0	– –	– –	– –	– –	45,270	– –	– –	– –
2008	3,161	308	22,847	20,523	786	39,281	170	3,094	86,702	0	– –	– –	– –	– –	45,488	– –	– –	– –
2009	2,947	305	22,100	21,389	525	39,588	66	2,728	86,395	0	– –	– –	– –	– –	43,641	– –	– –	– –
2010	3,613	299	23,598	19,838	R 956	40,808	24	2,226	R 87,449	0	– –	– –	– –	– –	45,445	– –	– –	– –
2011	3,789	297	23,934	19,308	R 964	41,028	32	2,102	R 87,368	0	– –	– –	– –	– –	45,655	– –	– –	– –
2012	3,558	279	23,725	15,584	R 1,005	38,519	11	2,357	R 81,201	0	– –	– –	– –	– –	45,709	– –	– –	– –
2013	3,643	314	23,875	R 20,678	R 967	39,115	6	3,156	R 87,797	0	– –	– –	– –	– –	46,705	– –	– –	– –
2014	3,303	319	25,072	R 20,899	R 963	39,744	6	3,163	R 89,848	0	– –	– –	– –	– –	47,202	– –	– –	– –
2015	3,023	302	25,595	R 18,900	R 1,063	39,469	0	2,874	R 87,902	0	– –	– –	– –	– –	47,147	– –	– –	– –
2016	2,615	309	25,856	R 19,059	R 1,060	41,192	1	R 2,944	R 90,112	0	– –	– –	– –	– –	48,431	– –	– –	– –
2017	2,533	362	25,776	R 19,139	R 1,161	37,618	17	R 3,054	R 86,765	0	– –	– –	– –	– –	48,922	– –	– –	– –
2018	2,504	396	26,117	R 21,797	R 1,158	37,266	11	R 2,799	R 89,148	0	– –	– –	– –	– –	R 51,211	– –	– –	– –
2019	2,425	391	27,232	23,688	1,152	36,991	16	2,748	91,827	0	– –	– –	– –	– –	51,043	– –	– –	– –
			Trillion Btu															
1960	72.0	143.4	63.5	19.2	1.0	154.8	6.5	38.2	283.2	(s)	6.1	NA	NA	NA	28.0	532.7	69.3	602.0
1970	46.7	273.2	77.8	41.8	4.1	187.5	2.2	31.0	344.4	(s)	5.9	NA	NA	NA	52.8	722.9	127.7	850.6
1980	34.2	263.5	91.8	40.8	4.6	185.9	2.2	23.3	348.6	(s)	48.4	NA	NA	NA	84.8	779.5	203.8	983.3
1990	59.0	216.2	91.2	23.2	5.0	166.4	0.8	17.2	303.8	0.0	47.6	14.0	0.1	(s)	100.4	696.9	252.3	949.3
2000	67.7	229.0	110.8	69.7	4.4	191.2	0.9	24.7	401.7	0.0	30.7	26.9	0.3	(s)	133.4	859.6	336.6	1,196.1
2001	65.7	219.4	115.7	57.0	4.4	191.2	0.3	19.5	388.0	0.0	26.6	26.8	0.3	(s)	134.6	830.6	337.0	1,167.6
2002	66.1	221.9	113.9	65.0	4.4	197.6	0.4	22.8	404.1	0.0	29.8	26.7	0.4	(s)	139.5	856.2	341.0	1,197.2
2003	67.2	226.6	108.9	48.1	4.5	198.8	0.9	21.6	382.8	0.0	29.5	35.8	0.5	(s)	140.6	850.5	342.3	1,192.8
2004	63.3	219.2	117.7	67.1	5.2	205.0	1.8	26.1	422.8	0.0	29.6	50.7	0.6	(s)	139.6	897.4	349.7	1,247.2
2005	65.6	221.4	117.6	73.7	5.6	203.6	1.2	27.6	429.3	0.0	30.0	64.0	0.6	(s)	145.9	928.0	350.3	1,278.3
2006	67.9	221.6	122.1	74.5	5.9	209.6	0.3	23.3	435.6	0.0	19.8	86.1	0.7	(s)	147.9	948.9	354.1	1,303.1
2007	68.4	270.0	129.7	59.5	5.1	207.0	0.3	19.9	421.5	0.0	22.0	110.5	0.8	(s)	154.5	1,019.3	359.3	1,378.6
2008	63.4	311.2	132.1	72.2	4.5	200.6	1.1	19.7	430.1	0.0	22.2	131.3	0.9	(s)	155.2	1,085.1	356.7	1,441.8
2009	58.7	307.3	127.7	74.4	3.0	201.5	0.4	17.4	424.4	0.0	25.3	171.1	1.0	(s)	148.9	1,104.4	344.1	1,448.5
2010	72.1	300.3	136.3	66.7	R 5.4	206.8	0.1	14.0	R 429.4	0.0	26.8	R 192.9	1.2	(s)	155.1	R 1,144.9	353.0	R 1,497.9
2011	76.0	299.7	138.1	64.7	R 5.5	207.7	0.2	13.3	R 429.5	0.0	18.3	R 203.4	1.4	(s)	155.8	R 1,153.1	353.8	R 1,506.8
2012	68.5	282.4	136.8	52.8	R 5.7	195.0	0.1	15.0	R 405.4	0.0	16.2	R 194.7	1.3	(s)	156.0	R 1,093.4	345.3	R 1,438.8
2013	69.1	323.2	137.6	69.9	R 5.5	197.9	(s)	19.5	R 430.3	0.0	18.2	R 195.3	1.3	0.1	159.4	R 1,168.9	351.9	R 1,520.8
2014	63.5	331.6	144.5	R 70.7	R 5.5	201.1	(s)	19.4	R 441.1	0.0	21.3	R 198.0	1.3	0.3	161.1	R 1,187.9	350.2	R 1,538.0
2015	56.5	317.5	147.5	R 63.0	R 6.0	199.6	0.0	17.8	R 433.9	0.0	19.6	R 206.9	1.3	0.4	160.9	R 1,166.9	336.8	R 1,503.7
2016	48.4	326.5	148.9	R 63.6	R 6.0	208.2	(s)	18.2	R 445.0	0.0	18.6	R 209.2	1.3	0.6	165.2	R 1,185.4	R 344.0	R 1,529.4
2017	47.4	381.8	148.4	R 63.9	R 6.6	190.1	0.1	R 18.9	R 428.0	0.0	R 16.1	R 217.5	1.3	0.9	166.9	R 1,226.1	339.5	R 1,565.6
2018	46.3	R 419.4	150.4	74.2	R 6.6	188.3	0.1	R 17.2	R 436.7	0.0	R 17.6	R 223.6	1.3	1.2	174.7	R 1,286.5	338.6	R 1,625.1
2019	45.0	415.8	156.8	81.4	6.5	186.9	0.1	16.8	448.6	0.0	18.7	217.3	1.3	1.5	174.2	1,296.5	337.8	1,634.3

[a] Includes supplemental gaseous fuels that are commingled with natural gas.
[b] Beginning in 2009, includes biodiesel blended into distillate fuel oil.
[c] Hydrocarbon gas liquids, include natural gas liquids and refinery olefins.
[d] Through 2004, includes kerosene-type and naphtha-type jet fuel. Beginning in 2005, includes kerosene-type jet fuel only; naphtha-type jet fuel is included in "Other Petroleum."
[e] Beginning in 1993, includes fuel ethanol blended into motor gasoline.
[f] Includes asphalt and road oil, aviation gasoline, kerosene, lubricants, petroleum coke, and the "other petroleum products" category. See Technical Notes, Section 4.
[g] Conventional hydroelectric power. For 1960 through 1989, includes pumped-storage hydroelectricity, which cannot be separately identified.
[h] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of renewable energy sources beginning in 1989.
[i] Wood, wood-derived fuels, and biomass waste. Prior to 2001, includes non-biomass waste.
[j] Losses and co-products from the production of biodiesel and fuel ethanol.
[k] Solar thermal and photovoltaic energy.
[l] Beginning in 1980, adjusted for the double-counting of supplemental gaseous fuels, which are included in both natural gas and the other fossil fuels from which they are mostly derived, but should be counted only once in net energy and total. For 1981 through 1992, includes fuel ethanol blended into motor gasoline that is not included in the motor gasoline column. Beginning in 2009, includes a small amount of wind energy consumed by the commercial and industrial sectors.
[m] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses. Pre-1990 estimates are not comparable to those for later years. See Section 6 of Technical Notes for an explanation of changes in methodology.

– – = Not applicable. NA = Not available.

Where shown, R = Revised data and (s) = Physical unit value less than 0.5 or Btu value less than 0.05.

Notes: Total end-use consumption estimates are the sum of the consumption estimates for the residential, commercial, industrial, and transportation sectors. · Totals may not equal sum of components due to independent rounding. · The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the Technical Notes for each type of energy.

Web Page: All data are available at https://www.eia.gov/state/seds/seds-data-complete.php.

Sources: Data sources, estimation procedures, and assumptions are described in the Technical Notes.

Table CT4. Residential Sector Energy Consumption Estimates, Selected Years, 1960-2019, Iowa

Year	Coal [a]	Natural Gas [b]	Petroleum				Biomass	Geothermal [e]	Solar [e,f]	Electricity Retail Sales	Net Energy [e,g]	Electrical System Energy Losses [h]	Total [e,g]
			Distillate Fuel Oil	HGL [c]	Kerosene	Total							
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels				Wood [d]			Million Kilowatthours			
1960	537	58	2,610	3,507	2,301	8,417	– –	– –	– –	3,720	– –	– –	– –
1965	279	77	2,347	5,020	1,327	8,694	– –	– –	– –	5,044	– –	– –	– –
1970	100	96	2,232	7,227	325	9,784	– –	– –	– –	6,480	– –	– –	– –
1975	42	94	1,802	7,199	138	9,139	– –	– –	– –	8,338	– –	– –	– –
1980	19	85	2,388	4,119	47	6,554	– –	– –	– –	10,038	– –	– –	– –
1985	61	79	1,490	3,172	115	4,777	– –	– –	– –	9,851	– –	– –	– –
1990	49	71	926	2,904	24	3,853	– –	– –	– –	10,513	– –	– –	– –
1995	12	82	781	4,197	25	5,003	– –	– –	– –	11,640	– –	– –	– –
2000	29	74	481	5,620	26	6,128	– –	– –	– –	12,029	– –	– –	– –
2001	31	71	415	3,613	37	4,064	– –	– –	– –	12,430	– –	– –	– –
2002	38	72	580	4,676	22	5,279	– –	– –	– –	12,921	– –	– –	– –
2003	38	74	389	4,932	20	5,341	– –	– –	– –	12,768	– –	– –	– –
2004	18	68	322	4,327	28	4,676	– –	– –	– –	12,625	– –	– –	– –
2005	22	67	226	4,595	22	4,843	– –	– –	– –	13,571	– –	– –	– –
2006	27	62	241	4,256	15	4,512	– –	– –	– –	13,344	– –	– –	– –
2007	32	68	229	4,340	10	4,579	– –	– –	– –	14,060	– –	– –	– –
2008	0	75	286	5,718	6	6,010	– –	– –	– –	14,073	– –	– –	– –
2009	0	70	182	5,575	14	5,772	– –	– –	– –	13,723	– –	– –	– –
2010	0	68	191	4,598	15	4,804	– –	– –	– –	14,555	– –	– –	– –
2011	0	67	253	4,646	11	4,909	– –	– –	– –	14,327	– –	– –	– –
2012	0	56	128	3,730	2	3,859	– –	– –	– –	13,988	– –	– –	– –
2013	0	73	128	4,544	2	4,674	– –	– –	– –	14,626	– –	– –	– –
2014	0	77	135	4,634	4	4,772	– –	– –	– –	14,427	– –	– –	– –
2015	0	63	135	3,914	3	4,052	– –	– –	– –	13,786	– –	– –	– –
2016	0	61	108	4,009	6	4,122	– –	– –	– –	14,094	– –	– –	– –
2017	0	60	169	3,796	5	3,970	– –	– –	– –	13,722	– –	– –	– –
2018	0	71	158	5,895	3	6,056	– –	– –	– –	14,840	– –	– –	– –
2019	0	71	147	6,551	5	6,703	– –	– –	– –	14,495	– –	– –	– –
							Trillion Btu						
1960	11.4	60.5	15.2	13.5	13.0	41.7	3.3	NA	NA	12.7	129.6	31.4	161.0
1965	5.9	78.0	13.7	19.3	7.5	40.5	2.2	NA	NA	17.2	143.8	41.1	184.9
1970	2.0	97.1	13.0	27.8	1.8	42.6	2.0	NA	NA	22.1	165.8	53.5	219.3
1975	0.8	95.1	10.5	27.7	0.8	38.9	2.3	NA	NA	28.4	165.6	68.2	233.8
1980	0.4	85.2	13.9	15.8	0.3	30.0	10.3	NA	NA	34.2	160.1	82.3	242.4
1985	1.3	79.6	8.7	12.2	0.7	21.5	12.9	NA	NA	33.6	135.5	77.0	212.5
1990	1.2	71.9	5.4	11.2	0.1	16.7	7.0	0.1	(s)	35.9	116.2	90.1	206.3
1995	0.3	82.6	4.5	16.1	0.1	20.8	6.1	0.1	(s)	39.7	132.5	99.1	231.6
2000	0.7	74.2	2.8	21.6	0.1	24.5	4.8	0.1	(s)	41.0	135.3	103.6	238.9
2001	0.7	71.3	2.4	13.9	0.2	16.5	4.7	0.1	(s)	42.4	125.3	106.2	231.5
2002	0.9	71.8	3.4	18.0	0.1	21.5	4.8	0.1	(s)	44.1	132.1	107.7	239.9
2003	0.9	74.2	2.3	18.9	0.1	21.3	5.0	0.2	(s)	43.6	134.1	106.1	240.1
2004	0.4	68.5	1.9	16.6	0.2	18.6	5.2	0.2	(s)	43.1	126.7	107.9	234.7
2005	0.5	67.7	1.3	17.6	0.1	19.1	4.3	0.2	(s)	46.3	128.7	111.2	239.9
2006	0.6	62.6	1.4	16.3	0.1	17.8	3.8	0.2	(s)	45.5	121.3	109.0	230.4
2007	0.8	68.4	1.3	16.7	0.1	18.1	4.2	0.3	(s)	48.0	132.0	111.6	243.6
2008	0.0	76.2	1.7	22.0	(s)	23.6	4.7	0.3	(s)	48.0	145.3	110.4	255.6
2009	0.0	70.6	1.1	21.4	0.1	22.5	5.5	0.4	(s)	46.8	138.2	108.2	246.4
2010	0.0	68.8	1.1	17.7	0.1	18.8	5.9	0.4	(s)	49.7	135.9	113.0	249.0
2011	0.0	67.7	1.5	17.8	0.1	19.4	5.8	0.7	(s)	48.9	135.1	111.0	246.1
2012	0.0	56.6	0.7	14.3	(s)	15.1	4.8	0.5	(s)	47.7	118.3	105.7	224.0
2013	0.0	74.6	0.7	17.5	(s)	18.2	6.3	0.5	0.1	49.9	142.9	110.2	253.1
2014	0.0	79.6	0.8	17.8	(s)	18.6	6.4	0.5	0.1	49.2	146.9	107.0	253.9
2015	0.0	66.0	0.8	15.0	(s)	15.8	5.2	0.5	0.2	47.0	128.3	98.5	226.8
2016	0.0	64.7	0.6	15.4	(s)	16.1	4.3	0.5	0.2	48.1	127.9	R 100.1	R 228.0
2017	0.0	63.7	1.0	14.6	(s)	15.6	4.2	0.5	0.3	46.8	125.3	95.2	R 220.6
2018	0.0	75.1	0.9	22.6	(s)	23.6	R 5.2	0.5	0.4	50.6	R 149.1	98.1	R 247.2
2019	0.0	75.9	0.8	25.2	(s)	26.0	5.6	0.5	0.5	49.5	152.4	95.9	248.3

[a] Beginning in 2008, data are no longer collected and are assumed to be zero.
[b] Includes supplemental gaseous fuels that are commingled with natural gas.
[c] Hydrocarbon gas liquids, assumed to be propane only.
[d] Wood and wood-derived fuels.
[e] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of renewable energy sources beginning in 1989.
[f] Solar thermal and photovoltaic energy. Includes solar thermal energy consumed as heat by the commercial and industrial sectors.
[g] Beginning in 1980, adjusted for the double-counting of supplemental gaseous fuels, which are included in both natural gas and the other fossil fuels from which they are mostly derived, but should be counted only once in net energy and total.
[h] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses. Pre-1990 estimates are not comparable to those for later years. See Section 6 of Technical Notes for an explanation of changes in methodology.

– – = Not applicable. NA = Not available.
Where shown, R = Revised data and (s) = Physical unit value less than 0.5 or Btu value less than 0.05.
Notes: Totals may not equal sum of components due to independent rounding. · The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the Technical Notes for each type of energy.
Web Page: All data are available at https://www.eia.gov/state/seds/seds-data-complete.php.
Sources: Data sources, estimation procedures, and assumptions are described in the Technical Notes.

Table CT5. Commercial Sector Energy Consumption Estimates, Selected Years, 1960-2019, Iowa

Year	Coal	Natural Gas [a]	Petroleum						Hydro-electric Power [e,f]	Biomass	Geothermal [f]	Solar [f,h]	Electricity Retail Sales	Net Energy [f,i]	Electrical System Energy Losses [j]	Total [f,i]
			Distillate Fuel Oil	HGL [b]	Kerosene	Motor Gasoline [c]	Residual Fuel Oil	Total [d]		Wood and Waste [f,g]						
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels						Million Kilowatthours			Million Kilowatthours				
1960	373	28	1,046	390	94	178	232	1,940	NA	– –	– –	NA	1,812	– –	– –	– –
1965	211	39	941	558	54	194	135	1,882	NA	– –	– –	NA	2,797	– –	– –	– –
1970	78	57	895	803	13	271	65	2,047	NA	– –	– –	NA	3,655	– –	– –	– –
1975	97	67	722	800	6	323	115	1,966	NA	– –	– –	NA	5,121	– –	– –	– –
1980	71	51	751	458	5	350	79	1,642	NA	– –	– –	NA	5,502	– –	– –	– –
1985	217	48	1,167	352	7	237	1	1,765	NA	– –	– –	NA	6,306	– –	– –	– –
1990	196	44	576	323	38	142	30	1,108	0	– –	– –	0	7,532	– –	– –	– –
1995	78	50	415	466	3	35	0	940	0	– –	– –	0	8,890	– –	– –	– –
2000	232	46	481	624	6	533	3	1,675	0	– –	– –	0	9,932	– –	– –	– –
2001	248	46	544	401	13	547	1	1,537	0	– –	– –	0	10,776	– –	– –	– –
2002	275	46	454	520	6	640	2	1,662	0	– –	– –	0	11,429	– –	– –	– –
2003	252	48	697	494	4	653	0	1,902	0	– –	– –	0	11,637	– –	– –	– –
2004	159	46	466	475	5	1,010	0	2,002	0	– –	– –	0	10,840	– –	– –	– –
2005	252	45	316	410	15	741	3	1,532	0	– –	– –	0	11,271	– –	– –	– –
2006	276	43	632	521	4	1,359	3	2,568	0	– –	– –	0	11,660	– –	– –	– –
2007	290	46	247	531	3	1,609	0	2,451	0	– –	– –	0	12,084	– –	– –	– –
2008	257	56	374	699	1	1,483	0	2,607	0	– –	– –	0	12,178	– –	– –	– –
2009	265	57	512	1,038	1	1,759	0	3,353	0	– –	– –	0	11,706	– –	– –	– –
2010	266	52	467	644	2	2,282	3	3,458	0	– –	– –	(s)	12,025	– –	– –	– –
2011	247	52	680	782	2	2,142	0	3,638	0	– –	– –	(s)	12,088	– –	– –	– –
2012	213	44	969	602	1	2,141	3	3,780	0	– –	– –	1	12,210	– –	– –	– –
2013	210	57	966	634	1	2,197	0	3,860	0	– –	– –	3	12,445	– –	– –	– –
2014	209	57	887	649	1	2,078	0	3,707	0	– –	– –	16	12,339	– –	– –	– –
2015	173	49	904	500	1	2,657	0	4,153	0	– –	– –	27	12,072	– –	– –	– –
2016	130	49	889	510	1	552	1	2,004	0	– –	– –	36	12,291	– –	– –	– –
2017	122	50	1,003	559	1	560	0	2,208	0	– –	– –	56	12,135	– –	– –	– –
2018	104	57	1,019	932	2	568	0	2,583	0	– –	– –	80	R 12,418	– –	– –	– –
2019	99	58	1,236	1,103	1	573	0	2,950	0	– –	– –	99	12,310	– –	– –	– –
			Trillion Btu													
1960	8.0	28.8	6.1	1.5	0.5	0.9	1.5	10.5	NA	0.1	NA	NA	6.2	53.6	15.3	68.8
1965	4.5	39.1	5.5	2.1	0.3	1.0	0.9	9.8	NA	(s)	NA	NA	9.5	62.9	22.8	85.7
1970	1.6	57.8	5.2	3.1	0.1	1.4	0.4	10.2	NA	(s)	NA	NA	12.5	82.1	30.2	112.3
1975	1.8	67.5	4.2	3.1	(s)	1.7	0.7	9.7	NA	(s)	NA	NA	17.5	96.5	41.9	138.4
1980	1.4	50.7	4.4	1.8	(s)	1.8	0.5	8.5	NA	0.3	NA	NA	18.8	79.7	45.1	124.8
1985	4.6	48.2	6.8	1.4	(s)	1.2	(s)	9.4	NA	0.3	NA	NA	21.5	76.0	49.3	125.2
1990	4.7	44.3	3.4	1.2	0.2	0.7	0.2	5.7	0.0	0.8	0.0	0.0	25.7	71.1	64.6	135.6
1995	1.9	50.6	2.4	1.8	(s)	0.2	0.0	4.5	0.0	1.0	0.1	0.0	30.3	78.0	75.7	153.6
2000	6.1	45.8	2.8	2.4	(s)	2.8	(s)	8.2	0.0	1.0	0.2	0.0	33.9	89.0	85.5	174.5
2001	5.9	46.1	3.2	1.5	0.1	2.8	(s)	7.8	0.0	1.1	0.2	0.0	36.8	91.1	92.1	183.2
2002	6.7	46.6	2.6	2.0	(s)	3.3	(s)	8.3	0.0	1.2	0.3	0.0	39.0	94.8	95.3	190.1
2003	6.1	48.2	4.1	1.9	(s)	3.4	0.0	9.7	0.0	1.5	0.3	0.0	39.7	98.3	96.7	194.9
2004	3.7	46.2	2.7	1.8	(s)	5.2	0.0	10.1	0.0	1.6	0.4	0.0	37.0	92.7	92.7	185.4
2005	5.9	45.4	1.8	1.6	0.1	3.8	(s)	7.6	0.0	1.6	0.5	0.0	38.5	93.2	92.3	185.6
2006	6.5	44.0	3.7	2.0	(s)	7.0	(s)	13.0	0.0	1.6	0.5	0.0	39.8	98.7	95.3	194.0
2007	6.8	46.8	1.4	2.0	(s)	8.3	0.0	12.1	0.0	1.4	0.5	0.0	41.2	103.7	95.9	199.6
2008	5.9	56.7	2.2	2.7	(s)	7.6	0.0	12.7	0.0	1.2	0.6	0.0	41.6	112.9	95.5	208.4
2009	6.1	57.1	3.0	4.0	(s)	9.0	0.0	16.1	0.0	1.4	0.6	0.0	39.9	115.0	92.3	207.3
2010	6.1	52.0	2.7	2.5	(s)	11.6	(s)	17.1	0.0	1.3	0.7	(s)	41.0	112.4	93.4	205.8
2011	5.7	52.3	3.9	3.0	(s)	10.8	0.0	18.0	0.0	1.4	0.7	(s)	41.2	113.8	93.7	207.4
2012	4.9	44.4	5.6	2.3	(s)	10.8	(s)	19.1	0.0	1.2	0.7	(s)	41.7	107.0	92.2	199.2
2013	4.8	58.2	5.6	2.4	(s)	11.1	0.0	19.5	0.0	1.3	0.7	(s)	42.5	121.8	93.8	215.6
2014	4.8	59.7	5.1	2.5	(s)	10.5	0.0	18.6	0.0	1.5	0.7	0.2	42.1	122.0	91.5	213.5
2015	3.9	51.8	5.2	1.9	(s)	13.4	0.0	21.1	0.0	1.6	0.7	0.2	41.2	115.5	86.2	201.8
2016	3.0	52.2	5.1	2.0	(s)	2.8	(s)	10.2	0.0	1.7	0.7	0.3	41.9	105.3	R 87.3	R 192.6
2017	2.8	52.5	5.8	2.1	(s)	2.8	0.0	11.2	0.0	1.5	0.7	0.5	41.4	105.9	84.2	190.2
2018	2.4	60.2	5.9	3.6	(s)	2.9	0.0	12.7	0.0	2.1	0.7	0.7	42.4	116.1	82.1	198.2
2019	2.2	61.6	7.1	4.2	(s)	2.9	0.0	14.5	0.0	2.2	0.7	0.9	42.0	119.6	81.5	201.1

[a] Includes supplemental gaseous fuels that are commingled with natural gas.
[b] Hydrocarbon gas liquids, assumed to be propane only.
[c] Beginning in 1993, includes fuel ethanol blended into motor gasoline. There is a discontinuity in this time series between 2014 and 2015 because of coverage. See Technical Notes, Section 4.
[d] Includes small amounts of petroleum coke not shown separately.
[e] Conventional hydroelectric power. For 1960 through 1989, includes pumped-storage hydroelectricity, which cannot be separately identified.
[f] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of renewable energy sources beginning in 1989.
[g] Wood, wood-derived fuels, and biomass waste. Prior to 2001, includes non-biomass waste.
[h] Solar thermal and photovoltaic energy. Excludes a small amount of solar thermal energy consumed as heat that is included in the residential sector.
[i] Beginning in 1980, adjusted for the double-counting of supplemental gaseous fuels, which are included in both natural gas and the other fossil fuels from which they are mostly derived, but should be counted only once in net energy and total. For 1981 through 1992, includes fuel ethanol blended into motor gasoline that is not included in the motor gasoline column. Beginning in 2009, includes a small amount of wind energy consumed by commercial utility-scale facilities.
[j] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses. Pre-1990 estimates are not comparable to those for later years. See Section 6 of Technical Notes for an explanation of changes in methodology.

– – = Not applicable. NA = Not available.
Where shown, R = Revised data and (s) = Physical unit value less than 0.5 or Btu value less than 0.05.
Notes: Totals may not equal sum of components due to independent rounding. · The commercial sector includes commercial combined-heat-and-power (CHP) and commercial electricity-only plants. · The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the Technical Notes for each type of energy.
Web Page: All data are available at https://www.eia.gov/state/seds/seds-data-complete.php.
Sources: Data sources, estimation procedures, and assumptions are described in the Technical Notes.

Table CT6. Industrial Sector Energy Consumption Estimates, Selected Years, 1960-2019, Iowa

Year	Coal	Natural Gas [a]	Petroleum						Hydro-electric Power [e,f]	Biomass		Geo-thermal [f]	Solar [f,i]	Electricity Retail Sales	Net Energy [f,j]	Electrical System Energy Losses [k]	Total [f,j]
			Distillate Fuel Oil	HGL [b]	Motor Gasoline [c]	Residual Fuel Oil	Other [d]	Total		Wood and Waste [f,g]	Losses and Co-products [h]						
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels						Million kWh				Million kWh				
1960	2,193	43	5,536	1,098	5,797	573	3,011	16,016	2	– –	– –	– –	NA	2,676	– –	– –	– –
1965	2,464	68	5,607	1,815	5,373	354	3,471	16,620	2	– –	– –	– –	NA	3,719	– –	– –	– –
1970	1,955	99	5,884	2,949	5,391	261	3,913	18,398	1	– –	– –	– –	NA	5,338	– –	– –	– –
1975	1,333	121	4,670	5,593	3,791	279	3,130	17,463	1	– –	– –	– –	NA	6,626	– –	– –	– –
1980	1,505	115	4,698	6,557	2,612	273	3,047	17,187	1	– –	– –	– –	NA	9,318	– –	– –	– –
1985	1,572	87	4,971	4,893	1,703	179	2,729	14,475	1	– –	– –	– –	NA	9,520	– –	– –	– –
1990	2,353	90	4,807	3,087	1,072	94	2,046	11,105	0	– –	– –	– –	0	11,392	– –	– –	– –
1995	2,761	113	5,636	12,267	1,038	92	2,228	21,260	0	– –	– –	– –	0	13,771	– –	– –	– –
2000	2,902	100	6,027	13,368	784	140	3,232	23,551	0	– –	– –	– –	0	17,127	– –	– –	– –
2001	2,814	93	6,813	12,031	1,201	43	2,435	22,524	0	– –	– –	– –	0	16,238	– –	– –	– –
2002	2,860	92	6,209	13,111	1,265	60	2,922	23,567	0	– –	– –	– –	0	16,548	– –	– –	– –
2003	2,898	94	4,722	7,859	1,323	150	2,756	16,810	0	– –	– –	– –	0	16,803	– –	– –	– –
2004	2,925	94	4,571	14,128	1,698	282	3,426	24,105	0	– –	– –	– –	0	17,437	– –	– –	– –
2005	2,930	96	4,550	15,814	1,568	191	3,617	25,740	0	– –	– –	– –	0	17,915	– –	– –	– –
2006	3,067	101	4,418	16,355	1,702	44	3,061	25,580	0	– –	– –	– –	0	18,331	– –	– –	– –
2007	3,009	141	4,683	11,945	1,394	44	2,538	20,604	0	– –	– –	– –	0	19,125	– –	– –	– –
2008	2,904	162	5,633	13,971	1,102	170	2,531	23,407	0	– –	– –	– –	0	19,237	– –	– –	– –
2009	2,682	165	5,544	14,638	1,152	66	2,192	23,591	0	– –	– –	– –	0	18,211	– –	– –	– –
2010	3,348	167	6,119	14,581	1,320	20	1,733	23,773	0	– –	– –	– –	(s)	18,865	– –	– –	– –
2011	3,542	167	5,949	13,867	1,355	32	1,658	22,861	0	– –	– –	– –	(s)	19,240	– –	– –	– –
2012	3,345	169	6,290	11,242	985	8	1,935	20,460	0	– –	– –	– –	(s)	19,512	– –	– –	– –
2013	3,433	174	6,181	R 15,489	970	6	2,732	R 25,378	0	– –	– –	– –	(s)	19,635	– –	– –	– –
2014	3,094	172	6,643	R 15,607	772	6	2,688	R 25,716	0	– –	– –	– –	1	20,436	– –	– –	– –
2015	2,849	179	7,657	R 14,477	748	0	2,384	R 25,267	0	– –	– –	– –	1	21,289	– –	– –	– –
2016	2,485	190	7,912	R 14,532	875	0	R 2,503	R 25,821	0	– –	– –	– –	3	22,046	– –	– –	– –
2017	2,412	241	7,446	R 14,757	880	17	R 2,617	R 25,717	0	– –	– –	– –	3	23,065	– –	– –	– –
2018	2,399	256	7,374	14,862	870	11	R 2,402	R 25,520	0	– –	– –	– –	4	23,953	– –	– –	– –
2019	2,326	250	7,967	15,915	797	16	2,382	27,077	0	– –	– –	– –	5	24,239	– –	– –	– –
			Trillion Btu														
1960	51.7	44.9	32.2	4.2	30.5	3.6	19.6	90.1	(s)	2.8	NA	NA	NA	9.1	198.6	22.6	221.2
1965	57.5	68.9	32.7	6.9	28.2	2.2	22.0	92.0	(s)	2.9	NA	NA	NA	12.7	234.1	30.3	264.4
1970	43.0	99.9	34.3	10.8	28.3	1.6	24.8	99.8	(s)	3.9	NA	NA	NA	18.2	264.7	44.1	308.8
1975	28.4	122.5	27.2	19.8	19.9	1.8	19.9	88.5	(s)	5.1	NA	NA	NA	22.6	267.1	54.2	321.3
1980	32.4	114.9	27.4	23.1	13.7	1.7	18.9	84.8	(s)	37.8	NA	NA	NA	31.8	301.7	76.4	378.1
1985	35.6	88.0	29.0	16.7	8.9	1.1	17.4	73.2	(s)	44.3	4.6	NA	NA	32.5	263.5	74.4	337.9
1990	53.1	90.9	28.0	10.6	5.6	0.6	13.1	57.9	0.0	39.9	14.0	0.0	0.0	38.9	274.1	97.6	371.7
1995	57.9	113.5	32.8	42.5	5.4	0.6	14.2	95.4	0.0	33.1	26.7	0.0	0.0	47.0	350.2	117.2	467.4
2000	60.9	100.6	35.1	45.7	4.1	0.9	20.7	106.4	0.0	24.9	26.9	0.0	0.0	58.4	364.4	147.5	511.9
2001	59.1	92.9	39.6	41.2	6.2	0.3	15.7	103.1	0.0	20.9	26.8	0.0	0.0	55.4	344.5	138.7	483.2
2002	58.5	92.5	36.1	45.0	6.6	0.4	18.9	107.0	0.0	23.8	26.7	0.0	0.0	56.5	350.8	138.0	488.8
2003	60.2	94.1	27.5	27.1	6.9	0.9	17.9	80.3	0.0	23.0	35.8	0.0	0.0	57.3	336.6	139.6	476.2
2004	59.2	94.2	26.6	48.5	8.8	1.8	22.4	108.1	0.0	22.8	50.7	0.0	0.0	59.5	381.7	149.1	530.8
2005	59.1	96.6	26.5	54.3	8.1	1.2	23.6	113.7	0.0	24.1	64.0	0.0	0.0	61.1	405.3	146.8	552.1
2006	60.8	102.3	25.6	55.9	8.8	0.3	19.9	110.6	0.0	14.4	86.1	0.0	0.0	62.5	421.4	149.8	571.2
2007	60.8	142.3	27.1	40.5	7.2	0.3	16.4	91.5	0.0	16.3	110.5	0.0	0.0	65.3	470.6	151.8	622.4
2008	57.5	164.1	32.6	47.1	5.6	1.1	16.4	102.7	0.0	16.3	131.3	0.0	0.0	65.6	520.9	150.9	671.8
2009	52.6	165.7	32.0	48.5	5.9	0.4	14.2	101.0	0.0	18.4	171.1	0.0	0.0	62.1	552.7	143.6	696.3
2010	66.0	168.4	35.3	46.6	6.7	0.1	11.1	99.9	0.0	19.5	R 192.9	0.0	(s)	64.4	R 591.9	146.5	R 738.4
2011	70.3	168.7	34.3	43.8	6.9	0.2	10.7	95.9	0.0	11.2	R 203.4	0.0	(s)	65.6	R 597.0	149.1	R 746.1
2012	63.6	171.2	36.3	36.1	5.0	0.1	12.5	89.9	0.0	10.2	R 194.7	0.0	(s)	66.6	R 576.6	147.4	R 724.1
2013	64.3	178.6	35.6	R 49.9	4.9	(s)	16.9	R 107.4	0.0	10.7	R 195.3	0.0	(s)	67.0	R 607.2	147.9	R 755.1
2014	58.7	179.0	38.3	50.4	3.9	(s)	16.6	109.2	0.0	13.5	R 198.0	0.0	(s)	69.7	R 611.0	151.6	R 762.6
2015	52.5	188.2	44.1	R 46.0	3.8	0.0	14.9	R 108.8	0.0	12.8	R 206.9	0.0	(s)	72.6	R 623.4	152.1	R 775.5
2016	45.4	200.2	45.5	R 46.2	4.4	0.0	15.6	R 111.8	0.0	12.5	R 209.2	0.0	(s)	75.2	R 635.9	R 156.6	R 792.5
2017	44.6	254.6	42.9	R 47.1	4.4	0.1	R 16.3	R 110.9	0.0	R 10.4	R 217.5	0.0	(s)	78.7	R 693.4	160.1	R 853.4
2018	43.9	271.1	42.5	47.5	4.4	0.1	R 14.9	R 109.3	0.0	R 10.4	R 223.6	0.0	(s)	81.7	R 717.1	158.4	R 875.5
2019	42.8	265.6	45.9	51.6	4.0	0.1	14.7	116.2	0.0	10.9	217.3	0.0	(s)	82.7	720.1	160.4	880.5

[a] Includes supplemental gaseous fuels that are commingled with natural gas.
[b] Hydrocarbon gas liquids, include natural gas liquids and refinery olefins.
[c] Beginning in 1993, includes fuel ethanol blended into motor gasoline. There is a discontinuity in this time series between 2014 and 2015 because of coverage. See Technical Notes, Section 4.
[d] Includes asphalt and road oil, kerosene, lubricants, petroleum coke, and the "other petroleum products" category. See Technical Notes, Section 4.
[e] Conventional hydroelectric power. For 1960 through 1989, includes pumped-storage hydroelectricity, which cannot be separately identified.
[f] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of renewable energy sources beginning in 1989.
[g] Wood, wood-derived fuels, and biomass waste. Prior to 2001, includes non-biomass waste.
[h] Losses and co-products from the production of biodiesel and fuel ethanol.
[i] Solar thermal and photovoltaic energy. Excludes a small amount of solar thermal energy consumed as heat that is included in the residential sector.
[j] Beginning in 1980, adjusted for the double-counting of supplemental gaseous fuels, which are included in both natural gas and the other fossil fuels from which they are mostly derived, but should be counted only once in net energy and total. For 1981 through 1992, includes fuel ethanol blended into motor gasoline that is not included in the motor gasoline column. Beginning in 2009, includes a small amount of wind energy consumed by industrial utility-scale facilities.
[k] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses. Pre-1990 estimates are not comparable to those for later years. See Section 6 of Technical Notes for an explanation of changes in methodology.

kWh = Kilowatthours. – – = Not applicable. NA = Not available.
Where shown, R = Revised data and (s) = Physical unit value less than 0.5 or Btu value less than 0.05.
Notes: Totals may not equal sum of components due to independent rounding. · The industrial sector includes industrial combined-heat-and-power (CHP) and industrial electricity-only plants. · The continuity of these data series estimates may be affected by the changing data sources and estimation methodologies. See the Technical Notes for each type of energy.
Web Page: All data are available at https://www.eia.gov/state/seds/seds-data-complete.php.
Sources: Data sources, estimation procedures, and assumptions are described in the Technical Notes.

Table CT7. Transportation Sector Energy Consumption Estimates, Selected Years, 1960-2019, Iowa

Year	Coal	Natural Gas [a]	Petroleum								Electricity Retail Sales	Net Energy [f,g]	Electrical System Energy Losses [h]	Total [f,g]
			Aviation Gasoline	Distillate Fuel Oil [b]	HGL [c]	Jet Fuel [d]	Lubricants	Motor Gasoline [e]	Residual Fuel Oil	Total				
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels								Million Kilowatthours			
1960	38	9	366	1,711	23	195	516	23,488	227	26,526	0	– –	– –	– –
1965	8	11	358	1,991	55	232	480	25,224	15	28,354	0	– –	– –	– –
1970	3	18	256	4,339	58	725	480	30,039	26	35,923	0	– –	– –	– –
1975	(s)	16	191	6,851	53	835	501	34,929	0	43,359	0	– –	– –	– –
1980	0	13	184	7,924	34	813	522	32,432	0	41,909	0	– –	– –	– –
1985	0	10	83	8,094	90	592	475	29,525	0	38,858	0	– –	– –	– –
1990	0	9	99	9,352	42	891	534	30,470	(s)	41,389	0	– –	– –	– –
1995	0	11	72	10,762	58	1,046	510	33,345	0	45,793	0	– –	– –	– –
2000	0	8	78	12,049	9	771	544	35,436	0	48,888	(s)	– –	– –	– –
2001	0	9	57	12,111	82	777	499	35,020	0	48,546	(s)	– –	– –	– –
2002	0	11	109	12,327	10	782	493	36,099	0	49,820	(s)	– –	– –	– –
2003	0	10	95	12,910	52	793	456	36,273	0	50,578	0	– –	– –	– –
2004	0	10	87	14,871	44	910	462	36,738	0	53,110	0	– –	– –	– –
2005	0	12	139	15,113	62	990	459	36,906	0	53,668	0	– –	– –	– –
2006	0	13	52	15,752	61	1,033	447	37,368	0	54,713	1	– –	– –	– –
2007	0	12	45	17,272	77	899	462	37,248	0	56,004	0	– –	– –	– –
2008	0	14	77	16,555	135	786	429	36,697	0	54,678	0	– –	– –	– –
2009	0	14	92	15,862	138	525	386	36,677	0	53,679	0	– –	– –	– –
2010	0	11	70	16,822	15	R 956	345	37,206	0	R 55,414	0	– –	– –	– –
2011	0	11	66	17,053	13	R 964	334	37,531	0	R 55,960	0	– –	– –	– –
2012	0	10	58	16,338	11	R 1,005	298	35,392	0	R 53,101	0	– –	– –	– –
2013	0	11	48	16,600	11	R 967	313	35,948	0	R 53,886	0	– –	– –	– –
2014	0	13	50	17,408	9	R 963	328	36,895	0	R 55,652	0	– –	– –	– –
2015	0	11	48	16,898	R 9	R 1,063	348	36,064	0	R 54,431	0	– –	– –	– –
2016	0	9	40	16,947	9	R 1,060	342	39,765	0	R 58,164	0	– –	– –	– –
2017	0	11	42	17,158	28	R 1,161	302	36,178	0	R 54,869	0	– –	– –	– –
2018	0	12	42	17,566	R 108	R 1,158	287	35,828	0	R 54,989	0	– –	– –	– –
2019	0	12	46	17,882	119	1,152	277	35,622	0	55,097	0	– –	– –	– –
			Trillion Btu											
1960	0.9	9.2	1.8	10.0	0.1	1.0	3.1	123.4	1.4	140.9	0.0	151.0	0.0	151.0
1965	0.2	11.2	1.8	11.6	0.2	1.3	2.9	132.5	0.1	150.4	0.0	161.7	0.0	161.7
1970	0.1	18.5	1.3	25.3	0.2	4.1	2.9	157.8	0.2	191.7	0.0	210.2	0.0	210.2
1975	(s)	16.2	1.0	39.9	0.2	4.7	3.0	183.5	0.0	232.3	0.0	248.5	0.0	248.5
1980	0.0	12.7	0.9	46.2	0.1	4.6	3.2	170.4	0.0	225.3	0.0	238.0	0.0	238.0
1985	0.0	10.5	0.4	47.1	0.3	3.3	2.9	155.1	0.0	209.2	0.0	222.3	0.0	222.3
1990	0.0	9.2	0.5	54.5	0.2	5.0	3.2	160.1	(s)	223.5	0.0	235.6	0.0	235.6
1995	0.0	11.1	0.4	62.6	0.2	5.9	3.1	173.5	0.0	245.8	0.0	256.9	0.0	256.9
2000	0.0	8.3	0.4	70.1	(s)	4.4	3.3	184.3	0.0	262.5	(s)	270.9	(s)	270.9
2001	0.0	9.1	0.3	70.5	0.3	4.4	3.0	182.1	0.0	260.6	(s)	269.7	(s)	269.7
2002	0.0	11.0	0.5	71.7	(s)	4.4	3.0	187.7	0.0	267.4	(s)	278.5	(s)	278.5
2003	0.0	10.0	0.5	75.1	0.2	4.5	2.8	188.5	0.0	271.6	0.0	281.6	0.0	281.6
2004	0.0	10.3	0.4	86.5	0.2	5.2	2.8	190.9	0.0	286.0	0.0	296.3	0.0	296.3
2005	0.0	11.7	0.7	87.9	0.2	5.6	2.8	191.6	0.0	288.9	0.0	300.8	0.0	300.8
2006	0.0	12.7	0.3	91.4	0.2	5.9	2.7	193.8	0.0	294.2	(s)	307.4	(s)	307.4
2007	0.0	12.4	0.2	99.9	0.3	5.1	2.8	191.5	0.0	299.9	0.0	313.0	0.0	313.0
2008	0.0	14.2	0.4	95.7	0.5	4.5	2.6	187.4	0.0	291.0	0.0	305.9	0.0	305.9
2009	0.0	13.9	0.5	91.6	0.5	3.0	2.3	186.7	0.0	284.6	0.0	298.6	0.0	298.6
2010	0.0	11.1	0.4	97.1	0.1	R 5.4	2.1	188.5	0.0	R 293.6	0.0	R 304.7	0.0	R 304.7
2011	0.0	10.9	0.3	98.4	(s)	R 5.5	2.0	190.0	0.0	R 296.3	0.0	R 307.2	0.0	R 307.2
2012	0.0	10.3	0.3	94.2	(s)	R 5.7	1.8	179.2	0.0	R 281.2	0.0	R 291.5	0.0	R 291.5
2013	0.0	11.7	0.2	95.7	(s)	R 5.5	1.9	181.9	0.0	R 285.2	0.0	R 297.0	0.0	R 297.0
2014	0.0	13.2	0.3	100.3	(s)	R 5.5	2.0	186.7	0.0	R 294.7	0.0	R 307.9	0.0	R 307.9
2015	0.0	11.5	0.2	97.4	(s)	R 6.0	2.1	182.4	0.0	R 288.2	0.0	R 299.7	0.0	R 299.7
2016	0.0	9.4	0.2	97.6	(s)	R 6.0	2.1	201.0	0.0	R 306.9	0.0	R 316.3	0.0	R 316.3
2017	0.0	11.1	0.2	98.8	0.1	R 6.6	1.8	182.8	0.0	R 290.3	0.0	R 301.4	0.0	R 301.4
2018	0.0	13.0	0.2	101.2	R 0.4	R 6.6	1.7	181.1	0.0	R 291.2	0.0	R 304.2	0.0	R 304.2
2019	0.0	12.6	0.2	103.0	0.5	6.5	1.7	180.0	0.0	291.8	0.0	304.5	0.0	304.5

[a] Transportation use of natural gas is gas consumed in the operation of pipelines, primarily in compressors, and, since 1990, natural gas consumed as vehicle fuel.
[b] Beginning in 2009, includes biodiesel blended into distillate fuel oil.
[c] Hydrocarbon gas liquids, assumed to be propane only.
[d] Through 2004, includes kerosene-type and naphtha-type jet fuel. Beginning in 2005, includes kerosene-type jet fuel only; naphtha-type jet fuel is included in "Industrial sector, Other Petroleum."
[e] Beginning in 1993, includes fuel ethanol blended into motor gasoline.
[f] There is a discontinuity in this time series between 1980 and 1981 due to the expanded coverage of fuel ethanol beginning in 1981.
[g] For 1981 through 1992, includes fuel ethanol blended into motor gasoline that is not included in the motor gasoline column.
[h] Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses. Pre-1990 estimates are not comparable to those for later years. See Section 6 of Technical Notes for an explanation of changes in methodology.

– – = Not applicable.
Where shown, R = Revised data and (s) = Physical unit value less than 0.5 or Btu value less than 0.05.
Notes: Totals may not equal sum of components due to independent rounding. · The continuity of these data series estimates may be affected by the changing data sources and estimation methodologies. See the Technical Notes for each type of energy.
Web Page: All data are available at https://www.eia.gov/state/seds/seds-data-complete.php.
Sources: Data sources, estimation procedures, and assumptions are described in the Technical Notes.

Table CT8. Electric Power Sector Consumption Estimates, Selected Years, 1960-2019, Iowa

Year	Coal	Natural Gas [a]	Petroleum				Nuclear Electric Power	Hydroelectric Power [d]	Biomass	Geothermal [f]	Solar [f,g]	Wind [f]	Electricity Net Imports [h]	Total [f,i]
			Distillate Fuel Oil [b]	Petroleum Coke	Residual Fuel Oil [c]	Total			Wood and Waste [e,f]					
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels				Million Kilowatthours			Million Kilowatthours				
1960	2,118	49	259	0	39	298	0	879	– –	0	NA	NA	0	– –
1965	2,760	52	183	0	27	210	0	926	– –	0	NA	NA	0	– –
1970	4,030	78	327	0	49	375	0	934	– –	0	NA	NA	0	– –
1975	4,936	47	507	0	214	722	2,291	877	– –	0	NA	NA	0	– –
1980	10,745	7	168	0	63	231	2,563	945	– –	0	NA	NA	0	– –
1985	12,491	2	101	0	2	103	1,927	988	– –	0	0	0	1,059	– –
1990	15,482	4	123	0	0	123	3,012	875	– –	0	0	0	0	– –
1995	17,877	5	154	0	0	154	3,730	1,003	– –	0	0	(s)	0	– –
2000	21,317	5	223	0	0	223	4,453	904	– –	0	0	494	(s)	– –
2001	21,305	6	218	0	0	218	3,853	845	– –	0	0	488	5	– –
2002	21,504	5	136	0	0	136	4,574	946	– –	0	0	919	0	– –
2003	21,680	4	212	0	0	212	3,988	789	– –	0	0	982	-1	– –
2004	21,873	8	177	62	0	239	4,929	946	– –	0	0	1,050	-1	– –
2005	21,072	21	355	0	0	355	4,538	960	– –	0	0	1,647	-1	– –
2006	21,236	20	270	199	0	470	5,095	909	– –	0	0	2,318	(s)	– –
2007	23,019	26	442	256	0	699	4,519	962	– –	0	0	2,757	(s)	– –
2008	24,734	18	180	152	0	332	5,282	819	– –	0	0	4,084	0	– –
2009	22,607	10	128	53	0	180	4,679	971	– –	0	0	7,421	0	– –
2010	24,780	13	183	134	0	317	4,451	948	– –	0	0	9,170	0	– –
2011	22,677	10	158	138	0	296	5,215	925	– –	0	0	10,705	(s)	– –
2012	20,747	17	204	24	0	227	4,347	766	– –	0	0	14,030	(s)	– –
2013	19,517	12	183	0	0	183	5,321	749	– –	0	0	15,565	0	– –
2014	19,705	10	127	0	0	127	4,152	879	– –	0	0	16,303	0	– –
2015	16,840	16	94	0	0	94	5,243	960	– –	0	0	17,870	0	– –
2016	14,289	21	164	0	0	164	4,703	917	– –	0	(s)	20,068	0	– –
2017	14,478	29	121	0	0	121	5,214	1,034	– –	0	5	21,368	0	– –
2018	16,230	47	130	0	0	130	4,895	925	– –	0	11	21,331	0	– –
2019	12,787	46	137	0	0	137	5,236	796	– –	0	15	26,301	0	– –
							Trillion Btu							
1960	44.0	50.3	1.5	0.0	0.2	1.8	0.0	9.5	0.3	0.0	NA	NA	0.0	105.8
1965	58.6	52.8	1.1	0.0	0.2	1.2	0.0	9.7	0.3	0.0	NA	NA	0.0	122.6
1970	84.2	78.6	1.9	0.0	0.3	2.2	0.0	9.8	0.4	0.0	NA	NA	0.0	175.2
1975	100.6	47.3	3.0	0.0	1.3	4.3	25.2	9.1	0.4	0.0	NA	NA	0.0	187.0
1980	200.2	6.9	1.0	0.0	0.4	1.4	28.0	9.8	0.3	0.0	NA	NA	0.0	246.6
1985	227.3	2.1	0.6	0.0	(s)	0.6	20.5	10.3	0.6	0.0	0.0	0.0	3.6	264.7
1990	276.0	4.2	0.7	0.0	0.0	0.7	31.9	9.1	0.2	0.0	0.0	0.0	0.0	321.1
1995	312.2	4.7	0.9	0.0	0.0	0.9	39.2	10.3	0.7	0.0	0.0	(s)	0.0	367.0
2000	378.2	4.8	1.3	0.0	0.0	1.3	46.4	9.2	0.8	0.0	0.0	5.0	(s)	445.2
2001	378.2	5.8	1.3	0.0	0.0	1.3	40.2	8.7	1.0	0.0	0.0	5.0	(s)	439.5
2002	375.4	5.3	0.8	0.0	0.0	0.8	47.8	9.6	1.0	0.0	0.0	9.3	0.0	448.5
2003	377.4	4.3	1.2	0.0	0.0	1.2	41.6	8.0	1.0	0.0	0.0	9.9	(s)	442.8
2004	379.9	8.3	1.0	0.4	0.0	1.4	51.4	9.5	1.0	0.0	0.0	10.5	(s)	460.8
2005	364.2	21.4	2.1	0.0	0.0	2.1	47.4	9.6	1.0	0.0	0.0	16.5	(s)	459.1
2006	367.3	19.7	1.6	1.1	0.0	2.7	53.2	9.0	1.1	0.0	0.0	23.0	(s)	473.0
2007	396.8	26.2	2.6	1.5	0.0	4.0	47.4	9.5	1.5	0.0	0.0	27.2	(s)	509.7
2008	421.8	17.8	1.0	0.9	0.0	1.9	55.2	8.1	1.7	0.0	0.0	40.2	0.0	544.9
2009	385.9	10.1	0.7	0.3	0.0	1.0	48.9	9.5	1.5	0.0	0.0	72.4	0.0	528.2
2010	421.7	12.7	1.1	0.8	0.0	1.8	46.5	9.3	1.5	0.0	0.0	89.5	0.0	581.5
2011	387.1	10.0	0.9	0.8	0.0	1.7	54.6	9.0	1.4	0.0	0.0	104.0	(s)	566.8
2012	354.1	16.9	1.2	0.1	0.0	1.3	45.6	7.3	1.4	0.0	0.0	133.5	(s)	558.1
2013	333.3	12.4	1.1	0.0	0.0	1.1	55.6	7.1	1.4	0.0	0.0	148.5	0.0	558.2
2014	337.7	11.0	0.7	0.0	0.0	0.7	43.4	8.4	1.7	0.0	0.0	155.0	0.0	556.9
2015	291.8	17.1	0.5	0.0	0.0	0.5	54.8	8.9	1.9	0.0	0.0	166.5	0.0	540.0
2016	249.6	22.1	0.9	0.0	0.0	0.9	49.2	8.5	1.9	0.0	(s)	185.3	0.0	515.5
2017	252.9	31.2	0.7	0.0	0.0	0.7	54.5	9.5	1.9	0.0	(s)	196.9	0.0	544.8
2018	279.3	50.8	0.7	0.0	0.0	0.7	51.2	8.4	1.8	0.0	0.1	194.2	0.0	582.3
2019	221.3	49.9	0.8	0.0	0.0	0.8	54.7	7.1	1.6	0.0	0.1	234.2	0.0	566.1

[a] Includes supplemental gaseous fuels that are commingled with natural gas.
[b] Prior to 1980, based on oil used in internal combustion and gas turbine engine plants. For 1980 through 2000, distillate fuel oil includes fuel oil Nos. 1 and 2, and small amounts of kerosene and jet fuel.
[c] Prior to 1980, based on oil used in steam plants. For 1980 through 2000, residual fuel oil includes fuel oil Nos. 4, 5, and 6.
[d] Conventional hydroelectric power. For 1960 through 1989, includes pumped-storage hydroelectricity, which cannot be separately identified.
[e] Wood, wood-derived fuels, and biomass waste. Prior to 2001, includes non-biomass waste.
[f] There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of renewable energy sources beginning in 1989.
[g] Solar thermal and photovoltaic energy.
[h] Electricity traded with Canada and Mexico. Btu value calculated by converting net imports in kilowatthours by 3,412 Btu per kilowatthour.
[i] Beginning in 1980, adjusted for the double-counting of supplemental gaseous fuels, which are included in both natural gas and the other fossil fuels from which they are mostly derived, but should be counted only once in the total.

– – = Not applicable. NA = Not available.

Where shown, R = Revised data and (s) = Physical unit value less than +0.5 and greater than -0.5 or Btu value less than +0.05 and greater than -0.05.

Notes: Totals may not equal sum of components due to independent rounding. · The electric power sector consists of 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 include independent power producers. · The continuity of these data series estimates may be affected by the changing data sources and estimation methodologies. See the Technical Notes for each type of energy.

Web Page: All data are available at https://www.eia.gov/state/seds/seds-data-complete.php.

Sources: Data sources, estimation procedures, and assumptions are described in the Technical Notes.