

Table 107. Energy Consumption Estimates by Source, Selected Years 1960-1999, Iowa

Year	Coal ^a	Natural Gas ^b	Petroleum											Nuclear Electric Power	Hydro-electric Power ^d	Wood and Waste	Other ^{a,e}	Net Interstate Flow of Electricity/Losses ^f	Total ^g
			Asphalt & Road Oil ^a	Aviation Gasoline ^a	Distillate Fuel ^a	Jet Fuel ^a	Kero-sene ^a	LPG ^a	Lubri-cants ^a	Motor Gasoline	Residual Fuel ^a	Other ^{a,c}	Total						
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels											Million kWh		Million kWh	Other ^{a,e}	Million kWh	
1960	5,257	187	2,579	366	11,163	195	2,587	5,017	713	29,463	1,071	44	53,197	0	881	—	—	-2,370	—
1965	5,722	248	2,569	358	11,068	232	1,523	7,448	698	30,792	531	542	55,760	0	928	—	—	3,241	—
1970	6,166	349	2,914	256	13,677	725	490	11,038	700	35,701	401	627	66,528	0	935	—	—	1,618	—
1975	6,407	346	2,294	191	14,553	835	214	13,645	655	39,042	608	986	73,024	2,291	879	—	—	13,729	—
1980	12,340	270	1,699	184	15,930	813	171	11,167	714	35,394	415	5,236	71,721	2,563	946	—	—	13,041	—
1985	14,342	226	2,023	83	15,490	592	155	8,507	649	31,465	182	1,778	60,925	1,927	2,048	—	—	6,022	—
1990	17,929	218	1,537	99	15,223	891	81	6,355	731	31,684	126	937	57,663	3,012	R h 873	—	R 604	—	—
1991	18,741	233	1,563	82	14,605	892	51	7,255	654	32,471	96	676	58,346	4,147	R 896	—	—	R -1,958	—
1992	17,992	231	1,406	75	16,370	803	42	8,978	666	31,713	107	748	60,908	3,405	R 995	—	—	R 324	—
1993	19,188	248	1,354	70	16,970	720	71	15,651	679	32,703	164	756	69,139	3,235	R 756	—	—	R 1,638	—
1994	19,341	248	1,964	69	18,531	897	60	15,663	709	33,887	182	688	72,650	4,107	R 1,073	—	—	R .518	—
1995	20,636	262	1,636	72	18,879	1,046	69	16,989	697	34,418	94	640	74,540	3,730	R 1,010	—	—	R .681	—
1996	21,171	273	2,052	71	20,276	819	54	R 11,344	676	35,909	96	R 2,261	R 73,558	3,924	R 938	—	—	R 995	—
1997	21,719	255	2,623	78	20,553	793	63	R 10,296	715	35,577	73	R 2,425	R 73,197	4,149	R 910	—	—	R 1,482	—
1998	23,351	233	2,157	72	20,425	1,184	62	14,882	748	36,973	94	2,525	79,122	3,768	984	—	—	-3,896	—
1999	23,399	231	2,942	81	19,479	885	72	18,746	756	36,993	120	2,624	82,698	3,640	988	—	—	-4,767	—
Trillion Btu																			
1960	115.9	193.7	17.1	1.8	65.0	1.0	14.7	20.1	4.3	154.8	6.7	0.2	285.9	0.0	9.5	6.4	0.0	-8.1	603.3
1965	126.6	250.0	17.0	1.8	64.5	1.3	8.6	29.9	4.2	161.7	3.3	2.9	295.3	0.0	9.7	5.5	0.0	11.1	698.1
1970	130.9	351.8	19.3	1.3	79.7	4.1	2.8	41.7	4.2	187.5	2.5	3.3	346.4	0.0	9.8	6.3	0.0	5.5	850.7
1975	131.6	348.6	15.2	1.0	84.8	4.7	1.2	50.7	4.0	205.1	3.8	5.4	375.8	25.2	9.1	7.9	0.0	46.8	945.0
1980	234.4	270.4	11.3	0.9	92.8	4.6	1.0	41.0	4.3	185.9	2.6	28.7	373.1	28.0	9.8	R 50.8	0.0	44.5	R 1,011.0
1985	268.8	228.4	13.4	0.4	90.2	3.3	0.9	30.7	3.9	165.3	1.1	9.6	318.9	20.8	21.4	R 56.8	0.0	20.5	R 935.6
1990	331.7	219.7	10.2	0.5	88.7	5.0	0.5	23.0	4.4	166.4	0.8	5.1	304.6	32.2	R 9.1	R 15.7	h 0.1	R 2.1	R 915.1
1991	346.4	235.0	10.4	0.4	85.1	5.0	0.3	26.2	4.0	170.6	0.6	3.6	306.2	44.5	R 9.3	R 15.1	0.1	R -6.7	R 950.0
1992	326.7	231.9	9.3	0.4	95.4	4.5	0.2	32.5	4.0	166.6	0.7	4.0	317.7	36.4	R 10.3	R 14.9	0.1	R 1.1	R 939.0
1993	339.9	248.8	9.0	0.4	98.9	4.1	0.4	56.4	4.1	171.8	1.0	4.0	350.1	34.6	R 7.8	R 13.8	0.1	R 5.6	R 1,000.5
1994	346.9	250.3	13.0	0.3	107.9	5.1	0.3	56.9	4.3	R 177.2	1.1	3.7	R 370.0	43.9	11.1	R 32.7	0.2	-1.8	R 1,053.3
1995	368.8	263.6	10.9	0.4	110.0	5.9	0.4	61.5	4.2	R 179.5	0.6	3.4	R 376.8	39.8	R 10.4	R 21.3	0.2	R -2.3	R 1,078.6
1996	380.5	274.3	13.6	0.4	118.1	4.6	0.3	R 41.0	4.1	R 187.3	0.6	R 12.1	R 382.1	41.7	9.7	R 19.7	0.2	R 3.4	R 1,111.7
1997	390.0	257.1	17.4	0.4	119.7	4.5	0.4	R 37.2	4.3	R 185.5	0.5	R 13.1	R 382.9	44.1	R 9.4	R 20.5	0.3	R 5.1	R 1,109.9
1998	417.0	235.2	14.3	0.4	119.0	6.7	0.4	53.8	4.5	192.7	0.6	13.6	405.9	40.0	10.2	8.7	0.3	-13.3	1,103.9
1999	416.0	235.7	19.5	0.4	113.5	5.0	0.4	67.8	4.6	192.8	0.8	14.1	418.8	38.7	10.2	15.2	3.7	-16.3	1,121.7

^a The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

^b Includes supplemental gaseous fuels.

^c "Other" is the subtotal of 16 petroleum products consumed in the industrial sector. See a full description in Appendix A, Section 4, "Other Petroleum Products."

^d If applicable, through 1988, includes all net imports of electricity, and, from 1989, includes only the portion of imports of electricity that is derived from hydroelectric power.

^e "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.

^f Net interstate flow of electricity is the difference between the amount of energy in the electricity sold within a State (including associated losses) and the energy input at the electric utilities within the State. A positive number

indicates that more electricity (including associated losses) came into the State than went out of the State during the year; conversely, a negative number indicates that more electricity (including associated losses) went out of the State than came into the State.

^g From 1989, "Total" does not equal the sum of the columns. Net imports of electricity generated from nonrenewable energy sources (shown in appendix Table A8) is included in the total but not in any other columns.

^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.

kWh=kilowatthours. R=Revised data. —=Not applicable.

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

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 108. Residential Energy Consumption Estimates, Selected Years 1960-1999, Iowa

Year	Coal ^a	Natural Gas ^b	Petroleum				Wood	Geothermal	Solar ^c	Electricity ^a	Electrical System Energy Losses ^d	Total
			Distillate Fuel ^a	Kerosene ^a	LPG ^a	Total						
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels				Thousand Cords	Million Kilowatthours	Net Energy	Million Kilowatthours		
1960	319	58	2,610	2,301	3,312	8,223	163	—	—	3,720	—	9,253
1965	171	77	2,347	1,327	4,741	8,416	108	—	—	5,044	—	12,042
1970	62	96	2,232	325	6,826	9,383	99	—	—	6,480	—	15,703
1975	49	94	1,802	138	6,799	8,740	115	—	—	8,338	—	20,112
1980	32	85	2,388	47	3,890	6,325	R 620	—	—	10,038	—	24,409
1985	98	79	1,435	115	2,996	4,546	575	—	—	9,851	—	23,144
1990	86	71	797	24	2,742	3,563	348	—	—	10,513	—	R 22,998
1991	78	79	887	34	3,359	4,279	366	—	—	11,159	—	R 24,259
1992	23	75	779	20	3,401	4,199	385	—	—	10,290	—	R 21,947
1993	26	83	821	33	3,955	4,809	R 319	—	—	11,103	—	R 23,451
1994	15	78	973	19	3,925	4,917	R 313	—	—	11,062	—	R 23,085
1995	31	82	844	25	3,964	4,832	R 347	—	—	11,640	—	R 24,268
1996	78	88	785	30	R 5,321	R 6,135	R 347	—	—	11,537	—	R 24,044
1997	131	82	768	28	R 4,935	R 5,730	R 242	—	—	11,673	—	R 24,282
1998	98	69	542	25	4,178	4,745	214	—	—	11,855	—	24,491
1999	136	71	489	24	5,230	5,743	229	—	—	11,867	—	23,251
Trillion Btu												
1960	6.8	60.5	15.2	13.0	13.3	41.5	3.3	0.0	0.0	12.7	124.7	31.6
1965	3.6	78.0	13.7	7.5	19.0	40.2	2.2	0.0	0.0	17.2	141.3	41.1
1970	1.3	97.1	13.0	1.8	25.8	40.6	2.0	0.0	0.0	22.1	163.1	53.6
1975	0.9	95.1	10.5	0.8	25.3	36.5	2.3	0.0	0.0	28.4	163.3	68.6
1980	0.6	85.2	13.9	0.3	14.3	28.5	12.4	0.0	0.0	34.2	160.9	83.3
1985	2.1	79.6	8.4	0.7	10.8	19.8	11.5	0.0	0.0	33.6	146.6	79.0
1990	2.1	71.9	4.6	0.1	9.9	14.7	7.0	e 0.1	e (s)	35.9	e 131.6	78.5
1991	1.9	79.4	5.2	0.2	12.1	17.5	7.3	0.1	(s)	38.1	144.3	R 82.8
1992	0.5	75.2	4.5	0.1	12.3	17.0	7.7	0.1	(s)	35.1	135.6	R 74.9
1993	0.6	83.7	4.8	0.2	14.3	19.2	6.4	0.1	(s)	37.9	R 147.9	80.0
1994	0.4	78.9	5.7	0.1	14.3	20.0	R 6.3	0.1	(s)	37.7	143.4	78.8
1995	0.8	82.6	4.9	0.1	14.4	19.4	6.9	0.1	(s)	39.7	149.6	R 82.8
1996	1.9	88.6	4.6	0.2	R 19.2	R 24.0	6.9	0.1	(s)	39.4	R 160.9	R 82.0
1997	3.1	82.4	4.5	0.2	R 17.8	R 22.5	R 4.8	0.1	(s)	39.8	R 152.8	R 82.9
1998	2.3	69.7	3.2	0.1	15.1	18.4	4.3	0.1	(s)	40.5	135.2	83.6
1999	3.2	72.8	2.8	0.1	18.9	21.9	4.6	0.1	(s)	40.5	143.1	79.3

^a The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

^b Includes supplemental gaseous fuels.

^c Includes small amounts of solar thermal and photovoltaic energy consumed by the commercial sector that cannot be separately identified. See Appendix A, Section 5, for explanation of estimation methodology.

^d Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

^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.

R=Revised data.

—=Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

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

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 109. Commercial Energy Consumption Estimates, Selected Years 1960-1999, Iowa

Year	Coal ^a	Natural Gas ^b	Petroleum						Wood	Electricity ^a	Electrical System Energy Losses ^c	Total ^d		
			Distillate Fuel ^a	Kerosene ^a	LPG ^a	Motor Gasoline	Residual Fuel ^a	Total						
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels						Thousand Cords	Geothermal	Million Kilowatthours	Net Energy	Million Kilowatthours	
1960	592	28	1,046	94	584	178	232	2,135	3	—	1,812	—	4,506	—
1965	318	39	941	54	837	194	135	2,161	2	—	2,797	—	6,679	—
1970	116	57	895	13	1,205	271	65	2,449	2	—	3,655	—	8,857	—
1975	90	67	722	6	1,200	323	115	2,366	2	—	5,121	—	12,353	—
1980	59	51	751	5	686	350	79	1,871	15	—	5,502	—	13,379	—
1985	180	48	1,124	7	529	237	1	1,898	R 15	—	6,306	—	14,816	—
1990	159	44	495	38	484	142	31	1,190	R 22	—	7,532	—	R 16,477	—
1991	145	47	563	3	593	727	9	1,895	R 23	—	7,938	—	R 17,257	—
1992	41	46	488	4	600	645	37	1,775	R 25	—	7,783	—	R 16,600	—
1993	44	50	356	7	698	637	5	1,703	26	—	8,536	—	R 18,029	—
1994	25	48	391	13	693	35	1	1,132	26	—	8,753	—	R 18,268	—
1995	58	50	449	3	700	35	0	1,186	26	—	8,890	—	R 18,536	—
1996	144	55	361	4	R 939	244	1	R 1,549	28	—	8,673	—	R 18,075	—
1997	243	50	339	8	R 871	445	0	R 1,663	R 27	—	8,944	—	R 18,604	—
1998	181	43	456	3	737	470	1	1,667	27	—	9,384	—	19,386	—
1999	253	45	443	4	923	433	0	1,803	32	—	9,668	—	18,942	—
Trillion Btu														
1960	12.6	28.8	6.1	0.5	2.3	0.9	1.5	11.4	0.1	0.0	6.2	59.1	15.4	74.4
1965	6.7	39.1	5.5	0.3	3.4	1.0	0.9	11.0	(s)	0.0	9.5	66.4	22.8	89.2
1970	2.4	57.8	5.2	0.1	4.6	1.4	0.4	11.7	(s)	0.0	12.5	84.3	30.2	114.5
1975	1.6	67.5	4.2	(s)	4.5	1.7	0.7	11.1	(s)	0.0	17.5	97.7	42.1	139.9
1980	1.2	50.7	4.4	(s)	2.5	1.8	0.5	9.3	0.3	0.0	18.8	80.2	45.6	125.9
1985	3.9	48.2	6.5	(s)	1.9	1.2	(s)	9.7	R 0.3	0.0	21.5	R 83.6	50.6	R 134.1
1990	3.8	44.3	2.9	0.2	1.8	0.7	0.2	5.8	R 0.4	25.7	R e 80.0	56.2	R e 136.2	
1991	3.5	47.0	3.3	(s)	2.1	3.8	0.1	9.3	R 0.5	0.0	27.1	R 87.3	R 58.9	R 146.2
1992	1.0	46.3	2.8	(s)	2.2	3.4	0.2	8.7	R 0.5	0.0	26.6	R 83.0	R 56.6	R 139.6
1993	1.0	50.5	2.1	(s)	2.5	3.3	(s)	8.0	0.5	0.0	29.1	89.2	61.5	150.7
1994	0.6	48.3	2.3	0.1	2.5	0.2	(s)	5.1	0.5	0.1	29.9	84.4	62.3	146.8
1995	1.4	50.6	2.6	(s)	2.5	0.2	0.0	5.3	0.5	0.1	30.3	88.3	63.2	R 151.6
1996	3.5	54.9	2.1	(s)	R 3.4	1.3	(s)	R 6.8	0.6	0.1	29.6	R 95.5	R 61.7	R 157.2
1997	5.7	50.6	2.0	(s)	R 3.1	2.3	0.0	R 7.5	0.5	0.2	30.5	R 95.1	R 63.5	R 158.5
1998	4.3	43.5	2.7	(s)	2.7	2.4	(s)	7.8	0.5	0.2	32.0	88.4	66.1	154.5
1999	6.0	45.8	2.6	(s)	3.3	2.3	0.0	8.2	0.6	0.2	33.0	93.8	64.6	158.5

^a The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

^b Includes supplemental gaseous fuels.

^c Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

^d Small amounts of solar thermal and photovoltaic energy consumed in the commercial sector cannot be separately identified and are included in residential consumption.

^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.

R=Revised data.

—=Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

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

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 110. Industrial Energy Consumption Estimates, Selected Years 1960-1999, Iowa

Year	Coal	Natural Gas ^a	Petroleum									Hydro-electric Power ^b	Wood and Waste	Other ^{b,c}	Electricity ^b	Net Energy	Electrical System Energy Losses ^e	
			Asphalt and Road Oil ^b	Distillate Fuel ^b	Kerosene ^b	LPG ^b	Lubricants ^b	Motor Gasoline	Residual Fuel ^b	Total								
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels									Other ^{b,d}	Total	Other ^{b,d}	Net Energy	Million kWh	Million kWh	Total
1960	2,193	43	2,579	5,536	192	1,098	196	5,797	573	44	16,016	2	—	—	2,676	—	6,657	—
1965	2,464	68	2,569	5,607	142	1,815	218	5,373	354	542	16,620	2	—	—	3,719	—	8,879	—
1970	1,955	99	2,914	5,884	152	2,949	220	5,391	261	627	18,398	1	—	—	5,338	—	12,936	—
1975	1,333	121	2,294	4,670	70	5,593	155	3,791	279	986	17,838	1	—	—	6,626	—	15,984	—
1980	1,505	115	1,699	4,698	119	6,557	192	2,612	273	5,236	21,385	1	—	—	9,318	—	22,658	—
1985	1,572	87	2,023	4,788	33	4,893	175	1,703	179	1,778	15,571	1	—	—	9,520	—	22,367	—
1990	2,353	90	1,537	4,137	19	3,087	196	1,072	95	937	11,080	R f 16	—	—	11,392	—	R 24,922	—
1991	2,672	97	1,563	4,604	15	3,255	176	1,160	87	676	11,536	R 13	—	—	11,684	—	R 25,401	—
1992	2,571	101	1,406	6,221	18	4,932	179	1,052	70	748	14,625	R 14	—	—	12,134	—	R 25,880	—
1993	2,494	103	1,354	6,150	31	10,944	182	799	160	756	20,378	R 19	—	—	12,465	—	R 26,328	—
1994	2,735	109	1,964	6,680	28	10,894	191	1,108	181	688	21,734	R 20	—	—	13,224	—	R 27,598	—
1995	2,761	115	1,636	6,091	41	12,267	187	1,038	94	640	21,994	R 19	—	—	13,771	—	R 28,712	—
1996	3,085	114	2,052	6,334	20	R 4,986	182	1,105	95	R 2,261	R 17,035	R 20	—	—	14,789	—	R 30,820	—
1997	3,151	107	2,623	6,859	27	R 4,399	192	1,092	73	R 2,425	R 17,690	R 12	—	—	15,531	—	R 32,306	—
1998	3,040	106	2,157	6,472	34	9,946	201	900	93	2,525	22,329	20	—	—	16,079	—	33,215	—
1999	2,939	102	2,942	5,386	44	12,589	203	879	120	2,624	24,788	15	—	—	16,499	—	32,327	—
Trillion Btu																		
1960	51.7	44.9	17.1	32.2	1.1	4.4	1.2	30.5	3.6	0.2	90.3	(s)	2.8	0.0	9.1	198.8	22.7	221.6
1965	57.5	68.9	17.0	32.7	0.8	7.3	1.3	28.2	2.2	2.9	92.4	(s)	2.9	0.0	12.7	234.5	30.3	264.8
1970	43.0	99.9	19.3	34.3	0.9	11.1	1.3	28.3	1.6	3.3	100.2	(s)	3.9	0.0	18.2	265.1	44.1	309.3
1975	28.4	122.5	15.2	27.2	0.4	20.8	0.9	19.9	1.8	5.4	91.6	(s)	5.1	0.0	22.6	270.2	54.5	324.7
1980	32.4	114.9	11.3	27.4	0.7	24.1	1.2	13.7	1.7	28.7	108.7	(s)	R 37.8	0.0	31.8	R 325.6	77.3	R 402.9
1985	35.6	88.0	13.4	27.9	0.2	17.6	1.1	8.9	1.1	9.6	79.9	(s)	R 44.3	0.0	32.5	R 280.2	76.3	R 356.6
1990	53.1	90.9	10.2	24.1	0.1	11.2	1.2	5.6	0.6	5.1	58.1	f 0.2	R 8.1	f 0.0	38.9	R f 249.3	85.0	R f 334.3
1991	59.3	98.2	10.4	26.8	0.1	11.8	1.1	6.1	0.5	3.6	60.4	R 0.1	R 7.1	0.0	39.9	R 265.0	R 86.7	R 351.6
1992	52.9	101.2	9.3	36.2	0.1	17.9	1.1	5.5	0.4	4.0	74.6	R 0.1	R 6.5	0.0	41.4	R 276.7	R 88.3	R 365.0
1993	50.3	102.9	9.0	35.8	0.2	39.5	1.1	4.2	1.0	4.0	94.8	R 0.2	R 6.7	0.0	42.5	R 297.5	R 89.8	R 387.3
1994	55.0	109.6	13.0	38.9	0.2	39.6	1.2	5.8	1.1	3.7	103.5	0.2	R 25.6	0.0	45.1	R 339.0	94.2	R 433.2
1995	57.9	115.7	10.9	35.5	0.2	44.4	1.1	R 5.4	0.6	3.4	101.6	R 0.2	R 13.6	0.0	47.0	R 336.0	R 98.0	R 434.0
1996	65.7	114.7	13.6	36.9	0.1	R 18.0	1.1	5.8	0.6	R 12.1	R 88.2	0.2	R 12.0	0.0	50.5	R 331.3	R 105.2	R 436.4
1997	66.0	108.4	17.4	40.0	0.2	R 15.9	1.2	5.7	0.5	R 13.1	R 93.8	0.1	R 14.9	0.0	53.0	R 336.2	R 110.2	R 446.4
1998	64.4	107.1	14.3	37.7	0.2	35.9	1.2	4.7	0.6	13.6	108.3	0.2	3.7	0.0	54.9	338.5	113.3	451.8
1999	62.2	103.9	19.5	31.4	0.2	45.5	1.2	4.6	0.8	14.1	117.3	0.2	9.7	3.4	56.3	353.0	110.3	463.3

^a Includes supplemental gaseous fuels.^b The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.^c "Other" is the subtotal of 16 petroleum products. See a full description in Appendix A, Section 4, "Other Petroleum Products."^d "Other" is geothermal, wind, photovoltaic, and solar thermal energy. See Appendix A, Section 5, for explanation of estimation methodology.^e Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.^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.

R=Revised data.

kWh=kilowatthours. — =Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

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

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 111. Transportation Energy Consumption Estimates, Selected Years 1960-1999, Iowa

Year	Coal ^a	Natural Gas ^b	Petroleum								Ethanol ^c	Electricity ^a	Electrical System Energy Losses ^d	Total ^c	
			Aviation Gasoline ^a	Distillate Fuel ^a	Jet Fuel ^a	LPG ^a	Lubricants ^a	Motor Gasoline	Residual Fuel ^a	Total					
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels								Thousand Barrels	Million Kilowatthours	Net Energy	Million Kilowatthours	
1960	36	9	366	1,711	195	23	516	23,488	227	26,526	0	0	—	0	—
1965	8	11	358	1,991	232	55	480	25,224	15	28,354	0	0	—	0	—
1970	3	18	256	4,339	725	58	480	30,039	26	35,923	0	0	—	0	—
1975	(s)	16	191	6,851	835	53	501	34,929	0	43,359	0	0	—	0	—
1980	0	13	184	7,924	813	34	522	32,432	0	41,909	0	0	—	0	—
1985	0	10	83	8,042	592	90	475	29,525	0	38,807	R e 820	0	—	0	—
1990	0	9	99	9,671	891	42	534	30,470	(s)	41,708	R 885	0	—	0	—
1991	0	7	82	8,442	892	49	478	30,584	0	40,528	R 1,102	0	—	0	—
1992	0	7	75	8,792	803	46	487	30,016	0	40,219	R 1,366	0	—	0	—
1993	0	7	70	9,521	720	54	496	31,266	0	42,128	R 1,611	0	—	0	—
1994	0	11	69	10,305	897	151	519	32,744	0	44,684	R 1,849	0	—	0	—
1995	0	11	72	11,349	1,046	58	510	33,345	0	46,380	R 1,811	0	—	0	—
1996	0	13	71	12,662	819	R 98	495	34,561	0	R 48,705	R 1,158	0	—	0	—
1997	0	11	78	12,377	793	R 91	522	34,040	0	R 47,901	R 1,410	0	—	0	—
1998	0	9	72	12,686	1,184	21	547	35,603	0	50,113	1,744	(s)	—	(s)	—
1999	0	8	81	12,862	885	4	553	35,681	0	50,065	1,888	(s)	—	(s)	—
Trillion Btu															
1960	0.9	9.2	1.8	10.0	1.0	0.1	3.1	123.4	1.4	140.9	0.0	0.0	151.0	0.0	151.0
1965	0.2	11.2	1.8	11.6	1.3	0.2	2.9	132.5	0.1	150.4	0.0	0.0	161.7	0.0	161.7
1970	0.1	18.5	1.3	25.3	4.1	0.2	2.9	157.8	0.2	191.7	0.0	0.0	210.2	0.0	210.2
1975	(s)	16.2	1.0	39.9	4.7	0.2	3.0	183.5	0.0	232.3	0.0	0.0	248.5	0.0	248.5
1980	0.0	12.7	0.9	46.2	4.6	0.1	3.2	170.4	0.0	225.3	0.0	0.0	238.0	0.0	238.0
1985	0.0	10.5	0.4	46.8	3.3	0.3	2.9	155.1	0.0	208.9	R e 2.9	0.0	e 219.3	0.0	e 219.3
1990	0.0	9.2	0.5	56.3	5.0	0.2	3.2	160.1	(s)	225.3	R 3.1	0.0	234.5	0.0	234.5
1991	0.0	6.7	0.4	49.2	5.0	0.2	2.9	160.7	0.0	218.3	R 3.9	0.0	225.0	0.0	225.0
1992	0.0	7.0	0.4	51.2	4.5	0.2	3.0	157.7	0.0	216.9	R 4.8	0.0	223.9	0.0	223.9
1993	0.0	7.4	0.4	55.5	4.1	0.2	3.0	164.2	0.0	227.3	R 5.7	0.0	234.7	0.0	234.7
1994	0.0	10.8	0.3	60.0	5.1	0.5	3.1	R 171.2	0.0	R 240.4	R 6.5	0.0	R 251.2	0.0	R 251.2
1995	0.0	11.1	0.4	66.1	5.9	0.2	3.1	R 173.9	0.0	R 249.6	R 6.4	0.0	R 260.7	0.0	R 260.7
1996	0.0	12.7	0.4	73.8	4.6	R 0.4	3.0	R 180.3	0.0	R 262.4	R 4.1	0.0	R 275.1	0.0	R 275.1
1997	0.0	11.4	0.4	72.1	4.5	0.3	3.2	R 177.4	0.0	R 257.9	R 5.0	0.0	R 269.3	0.0	R 269.3
1998	0.0	8.9	0.4	73.9	6.7	0.1	3.3	185.6	0.0	269.9	6.2	(s)	278.8	(s)	278.8
1999	0.0	7.9	0.4	74.9	5.0	(s)	3.4	185.9	0.0	269.6	6.7	(s)	277.5	(s)	277.5

^a The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.

^b Includes supplemental gaseous fuels. Transportation use of natural gas is gas consumed in the operation of pipelines, primarily in compressors, and, since 1990, is also gas consumed as vehicle fuel.

^c Ethanol blended into motor gasoline, which is accounted for under motor gasoline, is shown separately here to display the use of renewable energy by the transportation sector and is included only once in the total.

^d Incurred in the generation, transmission, and distribution of electricity plus plant use and unaccounted for electrical system energy losses.

^e There is a discontinuity in this time series between 1980 and 1981 due to the expanded coverage of renewable energy sources beginning in 1981.

R=Revised data.

—=Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

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

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.

Table 112. Estimates of Energy Input at Electric Utilities, Selected Years, 1960-1999, Iowa

Year	Coal	Natural Gas ^a	Petroleum				Nuclear Electric Power	Hydroelectric Power ^e	Wood and Waste	Geothermal Energy	Other ^{b,f}	Total ^g
			Heavy Oil ^{b,c}	Light Oil ^{b,d}	Petroleum Coke ^b	Total						
	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels				Million Kilowatthours					
1960	2,118	49	39	259	0	298	0	879	25	0	0	—
1965	2,760	52	27	183	0	210	0	926	30	0	0	—
1970	4,030	78	49	327	0	375	0	934	38	0	0	—
1975	4,936	47	214	507	0	722	2,291	877	40	0	0	—
1980	10,745	7	63	168	0	231	2,563	945	29	0	0	—
1985	12,491	2	2	101	0	103	1,927	2,047	60	0	0	—
1990	15,331	3	0	123	0	123	3,012	857	17	0	0	—
1991	15,846	4	0	109	0	109	4,147	883	20	0	0	—
1992	15,357	2	0	90	0	90	3,405	981	14	0	0	—
1993	16,623	4	0	122	0	122	3,235	737	20	0	0	—
1994	16,565	3	0	183	0	183	4,107	1,053	28	0	(s)	—
1995	17,785	4	0	148	0	148	3,730	991	20	0	(s)	—
1996	17,864	3	0	134	0	134	3,924	918	23	0	(s)	—
1997	18,194	4	0	211	0	211	4,149	R 899	22	0	(s)	—
1998	20,031	6	0	269	0	269	3,768	964	19	0	(s)	—
1999	20,071	5	0	299	0	299	3,640	974	20	0	2	—
Trillion Btu												
1960	44.0	50.3	0.2	1.5	0.0	1.8	0.0	9.5	0.3	0.0	0.0	105.8
1965	58.6	52.8	0.2	1.1	0.0	1.2	0.0	9.7	0.3	0.0	0.0	122.6
1970	84.2	78.6	0.3	1.9	0.0	2.2	0.0	9.8	0.4	0.0	0.0	175.2
1975	100.6	47.3	1.3	3.0	0.0	4.3	25.2	9.1	0.4	0.0	0.0	187.0
1980	200.2	6.9	0.4	1.0	0.0	1.4	28.0	9.8	0.3	0.0	0.0	246.6
1985	227.3	2.1	(s)	0.6	0.0	0.6	20.8	21.4	0.6	0.0	0.0	272.9
1990	272.6	3.5	0.0	0.7	0.0	0.7	32.2	8.9	0.2	0.0	0.0	318.1
1991	281.8	3.7	0.0	0.6	0.0	0.6	44.5	9.2	0.2	0.0	0.0	340.0
1992	272.3	2.3	0.0	0.5	0.0	0.5	36.4	10.1	0.1	0.0	0.0	321.8
1993	287.9	4.3	0.0	0.7	0.0	0.7	34.6	7.6	0.2	0.0	0.0	335.3
1994	291.0	2.7	0.0	1.1	0.0	1.1	43.9	10.9	0.3	0.0	(s)	349.8
1995	308.7	3.6	0.0	0.9	0.0	0.9	39.8	10.2	0.2	0.0	(s)	363.4
1996	309.3	3.4	0.0	0.8	0.0	0.8	41.7	9.5	0.2	0.0	(s)	364.9
1997	315.2	4.1	0.0	1.2	0.0	1.2	44.1	R 9.3	0.2	0.0	(s)	R 374.8
1998	346.0	6.0	0.0	1.6	0.0	1.6	40.0	10.0	0.2	0.0	(s)	403.7
1999	344.5	5.3	0.0	1.7	0.0	1.7	38.7	10.1	0.2	0.0	(s)	400.3

^a Includes supplemental gaseous fuels.^b The continuity of these data series estimates may be affected by changing data sources and estimation methodologies. See the "Additional Notes" under each type of energy in Appendix A.^c Prior to 1980, based on oil used in steam plants. Since 1980, heavy oil includes fuel oil nos. 4, 5, and 6 and residual fuel oils.^d Prior to 1980, based on oil used in internal combustion and gas turbine engine plants. Since 1980, light oil includes fuel oil nos. 1 and 2, kerosene, and jet fuel.^e If applicable, through 1988, includes all net imports of electricity, and, from 1989, includes only the portion of imports of electricity that is derived from hydroelectric power.^f "Other" is electricity generated for distribution from wind, photovoltaic, and solar thermal energy.^g If applicable, from 1989, includes net imports of electricity generated from nonrenewable energy sources not shown in other columns. See data in appendix Table A8.

R=Revised data.

—=Not applicable.

(s)=Btu value less than 0.05 and physical unit value less than 0.5.

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

Sources: Data sources, estimation procedures, and assumptions are described in the appendices to this report.