

Table CT1. Energy consumption estimates for selected energy sources in physical units, selected years, 1960-2023, Minnesota

Year	Coal Thousand short tons	Natural gas ^a Billion cubic feet	Petroleum							Nuclear electric power	Hydro-electric power ^g Million kilowatthours	Wind	Fuel ethanol ^h Thousand barrels	Biodiesel Thousand barrels
			Distillate fuel oil ^b	HGL ^c	Jet fuel ^d	Motor gasoline ^e	Residual fuel oil	Other ^f	Total					
1960	5,976	180	16,151	4,525	472	32,583	6,658	9,046	69,435	0	887	0	NA	NA
1965	7,259	249	18,960	5,781	2,624	35,278	4,980	9,886	77,507	143	1,093	0	NA	NA
1970	8,787	342	22,356	8,887	3,491	44,122	5,159	10,420	94,435	0	894	0	NA	NA
1971	7,884	351	23,814	9,430	3,985	45,866	4,133	10,295	97,523	1,394	980	0	NA	NA
1972	8,287	351	26,014	10,415	4,528	47,727	7,115	11,367	107,166	3,559	1,041	0	NA	NA
1973	9,384	361	26,735	9,816	5,185	49,154	7,038	12,443	110,370	3,270	1,057	0	NA	NA
1974	10,141	352	25,009	9,259	5,545	47,932	5,891	11,963	105,600	4,363	918	0	NA	NA
1975	10,120	331	24,369	9,187	5,629	48,253	4,326	10,887	102,651	9,750	917	0	NA	NA
1976	12,056	320	28,359	8,769	5,313	49,942	5,629	11,691	109,702	9,911	588	0	NA	NA
1977	14,702	293	26,975	8,304	5,271	50,914	4,487	11,342	107,294	11,163	670	0	NA	NA
1978	14,374	313	28,693	7,326	5,093	52,943	4,395	11,524	109,974	11,591	1,081	0	NA	NA
1979	12,954	334	27,020	8,509	5,644	50,475	2,635	10,449	104,732	11,503	917	0	NA	NA
1980	13,810	286	21,382	7,697	5,142	46,211	3,183	8,630	92,244	10,027	786	0	NA	NA
1981	13,894	266	18,698	5,956	4,516	45,024	1,576	7,441	83,211	10,187	938	0	9	NA
1982	12,115	262	20,900	7,492	4,261	44,877	1,693	7,527	86,750	10,197	1,006	0	11	NA
1983	11,984	241	17,388	7,538	4,044	46,061	1,567	9,040	85,636	11,753	1,073	0	8	NA
1984	13,258	256	19,099	4,983	7,331	48,051	1,109	9,269	89,842	8,328	971	0	6	NA
1985	12,744	257	19,891	5,353	7,781	45,285	859	9,245	88,414	11,572	973	0	658	NA
1986	11,327	245	19,275	6,280	7,801	45,776	1,797	9,840	90,769	11,052	1,081	0	812	NA
1987	14,504	240	19,310	5,418	5,656	47,018	1,208	10,709	89,318	11,554	865	0	521	NA
1988	17,285	284	20,497	5,621	5,142	48,813	1,277	10,769	92,118	12,288	677	(s)	418	NA
1989	18,279	300	20,592	6,088	4,663	48,576	1,062	11,666	92,648	10,926	817	(s)	493	NA
1990	18,377	291	19,576	5,966	5,099	47,760	961	12,912	92,275	12,139	857	(s)	577	NA
1991	16,993	314	21,107	6,595	4,978	48,578	1,047	11,518	93,822	12,059	1,037	(s)	1,102	NA
1992	16,924	309	21,270	8,008	6,621	49,693	1,176	12,711	99,477	11,166	1,063	(s)	1,729	NA
1993	18,321	328	20,786	8,926	9,438	51,348	1,235	12,061	103,793	11,986	1,151	(s)	3,224	NA
1994	18,729	324	22,035	9,445	9,780	52,540	1,085	12,612	107,497	12,224	1,139	40	3,690	NA
1995	18,947	353	23,038	9,758	9,969	54,303	647	13,762	111,477	13,243	1,098	57	3,968	NA
1996	19,703	368	24,016	12,018	10,625	54,866	783	15,478	117,787	12,095	1,187	50	3,023	NA
1997	19,086	354	23,757	10,269	10,892	55,755	695	15,626	116,994	10,819	1,035	54	4,523	NA
1998	19,958	331	24,606	7,410	10,709	58,106	515	14,941	116,288	11,644	955	147	5,063	NA
1999	19,082	345	23,920	8,705	12,591	59,894	552	16,224	121,888	13,316	1,179	486	5,500	NA
2000	20,735	362	24,846	9,844	13,301	61,120	930	15,338	125,378	12,960	931	725	5,589	NA
2001	19,683	341	24,995	8,974	11,588	62,236	1,146	15,469	124,408	11,789	832	897	5,718	14
2002	20,455	372	24,636	11,302	11,064	63,503	992	14,196	125,694	13,685	809	906	6,190	23
2003	21,998	371	25,336	10,862	11,977	64,638	1,063	15,435	129,311	13,414	815	978	6,736	19
2004	21,382	360	26,457	11,662	12,505	64,804	1,461	15,463	132,351	13,296	738	812	6,403	37
2005	21,381	368	26,439	11,161	12,656	64,697	1,710	16,777	133,440	12,835	775	1,582	5,016	R 126
2006	20,935	353	26,035	10,363	11,773	64,432	851	16,273	129,726	13,183	572	2,055	4,621	R 361
2007	20,595	388	27,334	10,401	11,275	64,627	1,348	15,715	130,701	13,103	654	2,639	5,848	R 489
2008	20,182	425	26,562	9,701	10,238	62,903	2,051	13,388	124,843	12,997	727	4,355	6,235	R 419
2009	18,576	394	23,162	10,587	9,200	61,240	691	12,083	116,963	12,393	809	5,053	6,140	R 444
2010	17,929	423	25,225	8,133	8,372	61,587	585	R 12,353	R 116,254	13,478	840	4,792	7,843	R 359
2011	17,846	421	26,464	7,955	8,129	58,738	520	R 12,295	R 114,100	11,959	746	6,726	7,038	1,219
2012	14,518	422	26,634	7,345	7,954	60,715	128	R 12,439	R 115,215	11,944	561	8,176	7,295	1,239
2013	15,041	468	27,217	9,688	9,091	60,569	95	R 12,488	R 119,149	10,708	511	8,259	7,406	1,248
2014	17,781	475	27,807	11,296	8,495	60,631	67	R 11,696	R 119,993	12,707	548	9,691	7,386	1,597
2015	15,425	431	25,674	9,046	8,919	62,346	92	R 12,362	R 118,440	12,039	849	9,779	7,795	1,784
2016	14,752	450	27,791	9,028	9,203	63,993	121	R 12,643	R 122,779	13,861	1,209	9,933	7,957	1,948
2017	14,568	452	27,881	10,572	R 9,495	63,511	20	10,905	122,384	13,904	1,258	11,137	7,932	1,959
2018	14,895	490	29,972	11,852	R 9,213	62,071	14	11,449	124,571	14,601	1,054	10,714	7,688	2,836
2019	11,604	520	31,014	13,310	R 9,606	61,762	44	12,024	R 127,760	14,105	1,056	10,965	7,788	3,590
2020	9,205	469	26,351	12,194	R 4,629	53,610	23	R 12,357	R 109,163	14,677	1,002	11,831	6,795	3,051
2021	10,150	495	26,285	11,534	R 6,462	56,840	27	R 13,409	R 114,557	14,123	679	12,271	7,148	2,959
2022	10,478	R 508	R 26,545	11,940	R 7,334	56,902	27	R 13,306	R 116,053	14,696	950	15,091	7,237	R 2,982
2023	8,399	506	25,898	10,716	8,429	57,322	23	13,039	115,427	11,924	750	14,398	7,363	2,912

^a Includes supplemental gaseous fuels that are commingled with natural gas.
^b Beginning in 2009, includes biodiesel blended into distillate fuel oil. Beginning in 2011, includes renewable diesel blended into distillate fuel oil. Excludes biofuels product supplied.
^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." There is a discontinuity in this time series between 2009 and 2010 because of data source and methodology changes. See technical notes.
^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 hydroelectric pumped-storage, 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>.
 Data source: U.S. Energy Information Administration, State Energy Data System. See technical notes.
<https://www.eia.gov/state/seds/>

Table CT2. Primary energy consumption estimates, selected years, 1960-2023, Minnesota
(trillion Btu)

Year	Fossil fuels										Fossil fuels (as commingled)			
	Coal	Natural gas excluding supplemental gaseous fuels ^a	Petroleum							Total	Total	Natural gas including supplemental gaseous fuels ^a	Distillate fuel oil including biofuels ^a	Motor gasoline including fuel ethanol ^a
			Distillate fuel oil excluding biofuels ^a	HGL ^b	Jet fuel ^c	Motor gasoline excluding fuel ethanol ^a	Residual fuel oil	Other ^d	Total					
1960	131.3	186.1	94.1	17.3	2.6	171.2	41.9	54.3	381.3	698.7	186.1	94.1	171.2	
1965	160.0	248.2	110.4	22.2	14.8	185.3	31.3	60.1	424.1	832.3	248.2	110.4	185.3	
1970	179.7	343.0	130.2	33.9	19.7	231.8	32.4	64.4	512.5	1,035.2	343.0	130.2	231.8	
1971	155.6	352.1	138.7	36.0	22.5	240.9	26.0	63.7	527.8	1,035.6	352.1	138.7	240.9	
1972	161.6	352.1	151.5	39.7	25.6	250.7	44.7	70.8	583.1	1,096.7	352.1	151.5	250.7	
1973	180.7	360.5	155.7	37.3	29.3	258.2	44.2	77.7	602.6	1,143.8	360.5	155.7	258.2	
1974	188.7	352.0	145.7	35.1	31.4	251.8	37.0	74.6	575.6	1,116.2	352.0	145.7	251.8	
1975	191.5	331.5	141.9	34.7	31.9	253.5	27.2	67.6	556.8	1,079.8	331.5	141.9	253.5	
1976	222.4	319.5	165.2	33.2	30.1	262.3	35.4	73.0	599.2	1,141.2	319.5	165.2	262.3	
1977	264.9	292.5	157.1	31.3	29.8	267.5	28.2	70.9	584.8	1,142.3	292.5	157.1	267.5	
1978	255.7	312.2	167.1	27.4	28.8	278.1	27.6	72.1	601.1	1,169.1	312.2	167.1	278.1	
1979	229.5	332.6	157.4	31.3	31.9	265.1	16.6	65.6	567.9	1,130.0	332.6	157.4	265.1	
1980	242.4	284.9	124.5	28.2	29.1	242.7	20.0	53.7	498.3	1,025.7	285.0	124.5	242.7	
1981	244.2	264.8	108.9	21.9	25.5	236.5	9.9	47.4	450.2	959.2	265.0	108.9	236.5	
1982	212.5	263.0	121.7	27.2	24.1	235.7	10.6	47.9	467.3	942.8	263.3	121.7	235.7	
1983	211.2	246.3	101.3	27.5	22.9	242.0	9.9	57.4	460.8	918.3	246.3	101.3	242.0	
1984	231.4	256.4	111.2	18.3	41.5	252.4	7.0	58.6	489.0	976.8	256.4	111.2	252.4	
1985	226.1	258.5	115.9	19.5	44.1	237.9	5.4	58.9	481.7	966.3	258.5	115.9	237.9	
1986	201.4	244.5	112.3	23.1	44.2	240.5	11.3	62.9	494.2	940.1	244.5	112.3	240.5	
1987	256.0	239.7	112.5	20.1	32.0	247.0	7.6	68.1	487.3	983.0	239.8	112.5	247.0	
1988	303.6	285.4	119.4	20.8	29.1	256.4	8.0	67.7	501.5	1,090.5	285.8	119.4	256.4	
1989	324.9	301.4	119.9	22.7	26.4	255.2	6.7	72.9	503.8	1,130.0	301.7	119.9	255.2	
1990	325.5	291.8	114.0	21.9	28.9	250.9	6.0	81.1	502.9	1,120.1	291.8	114.0	250.9	
1991	301.5	318.2	122.9	24.2	28.2	255.2	6.6	72.4	509.4	1,129.1	318.2	122.9	255.2	
1992	300.8	312.2	123.9	29.3	37.5	261.0	7.4	79.5	538.6	1,151.5	312.2	123.9	261.0	
1993	325.9	331.5	121.1	32.8	53.5	256.7	7.8	75.5	547.2	1,204.6	331.6	121.1	267.9	
1994	332.8	327.1	128.2	34.7	55.4	261.1	6.8	78.6	565.0	1,224.9	327.4	128.2	273.9	
1995	338.0	357.5	134.1	35.8	56.5	268.8	4.1	86.6	585.9	1,281.4	357.7	134.1	282.6	
1996	354.6	374.3	139.8	44.2	60.2	275.4	4.9	97.0	621.5	1,350.4	375.0	139.8	285.9	
1997	341.6	360.3	138.3	38.1	61.8	274.5	4.4	97.9	614.8	1,316.7	360.4	138.3	290.2	
1998	357.0	337.1	143.2	27.4	60.7	284.8	3.2	94.0	613.3	1,307.4	337.1	143.2	302.3	
1999	341.5	351.1	139.2	32.2	71.4	292.5	3.5	102.2	641.0	1,333.6	351.1	139.2	311.6	
2000	373.8	367.4	144.6	36.4	75.4	298.5	5.8	96.8	657.5	1,398.6	367.5	144.6	317.9	
2001	353.3	344.9	145.4	33.1	65.7	303.9	7.2	96.8	652.1	1,350.3	345.0	145.4	323.7	
2002	360.8	374.2	143.4	41.0	62.7	308.7	6.2	88.6	650.6	1,385.6	374.2	143.4	330.2	
2003	390.7	374.2	147.4	40.2	67.9	312.6	6.7	96.5	671.2	1,436.1	374.2	147.4	335.9	
2004	378.8	362.3	153.9	42.6	70.9	314.5	9.2	96.9	688.0	1,429.1	362.4	153.9	336.7	
2005	379.1	372.1	153.8	40.8	71.8	318.5	10.7	105.3	700.9	1,452.1	372.2	153.8	335.9	
2006	370.8	358.2	151.1	37.8	66.8	318.1	5.3	101.9	680.9	1,410.0	358.2	151.1	334.1	
2007	366.2	395.7	158.1	37.9	63.9	312.0	8.5	98.5	679.0	1,440.8	395.7	158.1	332.3	
2008	359.4	435.1	153.5	35.7	58.1	299.6	12.9	83.8	643.5	1,438.0	435.1	153.5	321.2	
2009	328.7	405.5	R 129.9	38.4	52.2	290.5	4.3	75.6	R 590.9	R 1,325.1	405.6	R 133.6	311.7	
2010	315.4	427.2	R 142.9	31.2	47.5	284.9	3.7	R 77.4	R 587.5	R 1,330.1	427.2	R 145.5	312.1	
2011	315.6	425.0	R 145.8	30.6	46.1	273.0	3.3	R 76.8	R 575.5	R 1,316.1	425.0	R 152.3	297.4	
2012	257.9	430.3	R 146.6	28.2	45.1	282.0	0.8	R 77.7	R 580.5	R 1,268.6	430.3	R 153.2	307.3	
2013	267.7	478.6	R 149.9	37.2	51.5	280.8	0.6	R 78.0	R 598.0	R 1,344.3	478.6	R 156.6	306.5	
2014	313.1	490.1	R 151.2	43.4	48.2	281.1	0.4	R 73.1	R 597.4	R 1,400.6	490.2	R 159.8	306.7	
2015	271.6	448.6	R 137.8	34.7	50.6	288.2	0.6	R 77.2	R 589.2	R 1,309.3	448.6	R 147.4	315.3	
2016	261.2	466.4	R 149.1	34.7	52.2	295.9	0.8	R 80.4	R 613.0	R 1,340.6	466.4	R 159.5	323.5	
2017	257.6	466.9	R 149.5	40.6	53.8	293.3	0.1	R 68.7	R 606.2	R 1,330.7	466.9	R 160.0	320.9	
2018	261.5	514.2	R 156.5	45.5	52.2	286.9	0.1	R 72.5	R 613.8	R 1,389.5	514.2	R 171.7	313.7	
2019	205.1	549.5	R 158.2	51.1	R 54.5	284.9	0.3	R 76.0	R 624.9	R 1,379.6	549.6	R 177.4	312.0	
2020	162.7	496.0	R 134.3	46.8	26.2	247.2	0.1	R 78.1	R 532.9	R 1,191.6	496.0	R 150.7	270.8	
2021	179.1	523.8	R 144.4	44.3	36.6	262.2	0.2	R 83.2	R 561.7	R 1,264.6	523.8	R 151.1	287.0	
2022	184.5	R 535.0	R 146.0	45.9	R 41.6	262.1	0.2	R 82.6	R 568.9	R 1,288.4	R 535.0	R 152.6	287.3	
2023	149.0	536.8	143.2	41.2	47.8	263.8	0.1	80.8	567.1	1,252.8	537.1	149.0	289.4	

^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." There is a discontinuity in this time series between 2009 and 2010 because of data source and methodology changes, see technical notes.

^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>.

Data source: U.S. Energy Information Administration, State Energy Data System. See technical notes. <https://www.eia.gov/state/seds/>

Table CT2. Primary energy consumption estimates, selected years, 1960-2023, Minnesota (continued)
(trillion Btu)

Year	Nuclear electric power	Renewable energy											Net interstate flow of electricity ^l	Electricity net imports ^m	Total ^{f,j}	
		Hydro-electric power ^{e,f}	Biomass						Geo-thermal ^f	Solar ^{f,k}	Wind	Total ^{f,j}				
			Wood and waste ^{f,g}	Fuel ethanol ^h	Biodiesel	Renewable diesel	Losses and co-products ⁱ	Total ^{f,j}								
1960	0.0	3.0	25.4	NA	NA	NA	NA	25.4	0.0	NA	NA	NA	28.4	-19.3	0.3	708.1
1965	1.7	3.7	23.4	NA	NA	NA	NA	23.4	0.0	NA	NA	NA	27.1	-15.8	0.4	845.7
1970	0.0	3.0	23.4	NA	NA	NA	NA	23.4	0.0	NA	NA	NA	26.5	18.4	0.4	1,080.5
1975	107.4	3.1	27.4	NA	NA	NA	NA	27.4	0.0	NA	NA	NA	30.5	-5.7	0.6	1,212.7
1976	109.5	2.0	29.5	NA	NA	NA	NA	29.5	0.0	NA	NA	NA	31.5	-20.3	0.7	1,262.6
1977	120.2	2.3	29.7	NA	NA	NA	NA	29.7	0.0	NA	NA	NA	32.0	-61.4	0.6	1,233.7
1978	126.8	3.7	39.0	NA	NA	NA	NA	39.0	0.0	NA	NA	NA	42.7	-24.4	4.4	1,318.6
1979	125.1	3.1	44.5	NA	NA	NA	NA	44.5	0.0	NA	NA	NA	47.6	8.7	6.2	1,317.7
1980	109.4	2.7	46.6	NA	NA	NA	NA	46.6	0.0	NA	NA	NA	49.3	4.6	3.3	1,192.3
1981	112.4	3.2	46.8	NA	NA	NA	NA	46.8	0.0	NA	NA	NA	50.0	23.2	0.3	1,145.1
1982	112.9	3.4	48.4	NA	NA	NA	NA	48.5	0.0	NA	NA	NA	51.9	41.8	0.9	1,150.2
1983	128.2	3.7	51.4	NA	NA	NA	NA	51.4	0.0	NA	NA	NA	55.0	46.1	1.4	1,149.0
1984	90.3	3.3	55.9	NA	NA	NA	NA	55.9	0.0	NA	NA	NA	59.2	82.3	3.4	1,211.9
1985	122.9	3.3	56.3	2.3	NA	NA	NA	58.6	0.0	NA	NA	NA	61.9	62.9	9.1	1,223.2
1986	116.9	3.7	52.2	2.8	NA	NA	NA	55.2	0.0	NA	NA	NA	58.8	70.9	23.4	1,210.2
1987	120.6	3.0	49.5	1.8	NA	NA	NA	51.5	0.0	NA	0.0	0.0	54.4	54.6	6.6	1,219.3
1988	130.3	2.3	52.8	1.4	NA	NA	NA	54.5	0.0	0.0	(s)	(s)	56.8	53.7	-5.7	1,325.6
1989	115.6	2.8	52.9	1.7	NA	NA	NA	55.4	0.1	0.3	(s)	(s)	58.6	53.9	-1.5	1,356.7
1990	128.5	2.9	48.8	2.0	NA	NA	NA	51.6	0.1	0.3	(s)	(s)	55.0	93.7	2.5	1,399.7
1991	126.4	3.5	49.4	3.8	NA	NA	NA	54.3	0.2	0.3	(s)	(s)	58.4	99.5	9.7	1,423.1
1992	116.9	3.6	52.8	6.0	NA	NA	NA	61.1	0.2	0.3	(s)	(s)	65.2	79.9	18.5	1,432.2
1993	125.9	3.9	52.1	11.2	NA	NA	NA	65.8	0.2	0.3	(s)	(s)	70.2	54.5	21.3	1,476.4
1994	127.8	3.9	53.4	12.8	NA	NA	NA	68.9	0.2	0.3	0.1	0.1	73.4	59.7	26.4	1,512.2
1995	139.1	3.7	56.2	13.8	NA	NA	NA	73.2	0.2	0.4	0.2	0.2	77.7	74.6	28.8	1,601.6
1996	127.0	4.1	57.1	10.5	NA	NA	NA	72.0	0.2	0.4	0.2	0.2	76.7	85.1	30.2	1,669.4
1997	113.5	3.5	55.6	15.7	NA	NA	NA	78.3	0.2	0.4	0.2	0.2	82.5	91.5	33.7	1,638.0
1998	122.2	3.3	50.9	17.6	NA	NA	NA	76.1	0.2	0.3	0.5	0.5	80.4	76.9	27.1	1,613.9
1999	139.1	4.0	50.5	19.1	NA	NA	NA	81.2	0.2	0.3	1.7	1.7	87.5	102.3	20.5	1,683.0
2000	135.2	3.2	54.4	19.4	NA	NA	NA	87.2	0.2	0.3	2.5	2.5	93.4	81.6	26.9	1,735.8
2001	123.1	2.8	54.4	19.8	NA	NA	NA	89.7	0.3	0.3	3.1	3.1	96.1	108.6	28.2	1,706.3
2002	142.9	2.8	46.3	21.5	NA	NA	NA	86.1	0.3	0.2	3.1	3.1	92.4	132.3	14.2	1,767.5
2003	139.8	2.8	43.9	23.4	NA	NA	NA	88.9	0.4	0.2	3.3	3.3	95.5	181.1	-8.6	1,844.0
2004	138.6	2.5	52.8	22.2	NA	NA	NA	98.8	0.4	0.2	2.8	2.8	104.6	165.3	8.9	1,846.6
2005	133.9	2.6	57.1	17.4	0.7	NA	NA	99.7	0.4	0.1	5.4	5.4	108.3	130.5	26.7	1,851.4
2006	137.6	2.0	53.5	16.0	1.9	NA	NA	103.1	0.5	0.1	7.0	7.0	112.7	134.2	27.0	1,821.5
2007	137.4	2.2	63.5	20.3	2.6	NA	NA	119.9	0.6	0.1	9.0	9.0	131.9	136.2	23.4	1,869.8
2008	135.8	2.5	64.7	21.6	2.2	NA	NA	128.6	0.7	0.2	14.9	14.9	146.8	127.2	26.5	1,874.4
2009	129.6	2.8	69.5	21.3	2.4	NA	NA	145.5	0.9	0.2	17.2	17.2	166.6	95.0	26.6	1,742.9
2010	140.9	2.9	79.4	27.2	1.9	NA	NA	168.8	1.0	0.2	16.3	16.3	189.2	128.9	24.2	1,813.4
2011	125.1	2.5	74.4	24.4	6.5	NA	NA	167.8	1.0	0.2	22.9	22.9	194.5	130.8	26.3	1,792.8
2012	125.2	1.9	73.3	25.3	6.6	NA	NA	162.1	1.1	0.2	27.9	27.9	193.2	138.7	22.2	1,747.9
2013	111.9	1.7	73.0	25.7	6.7	NA	NA	160.5	1.1	0.3	28.2	28.2	191.8	146.1	27.0	1,821.1
2014	132.9	1.9	80.7	25.6	8.6	NA	NA	175.1	1.1	0.3	33.1	33.1	211.4	100.8	23.0	1,868.6
2015	125.9	2.9	79.1	27.1	9.6	0.0	0.0	177.9	1.1	0.3	33.4	33.4	215.5	67.8	27.0	1,745.5
2016	145.0	4.1	77.6	27.6	10.4	0.0	0.0	178.1	1.1	0.4	33.9	33.9	217.5	38.1	28.9	1,770.1
2017	145.4	4.3	70.1	27.6	10.5	0.0	0.0	171.8	1.1	2.4	38.0	38.0	217.6	61.5	24.6	1,779.8
2018	152.7	3.6	71.1	26.8	15.2	0.0	0.0	178.1	1.1	4.0	36.6	36.6	223.4	78.9	13.1	1,857.6
2019	147.3	3.6	64.8	27.1	19.2	0.0	0.0	177.9	1.1	4.8	37.4	37.4	224.9	44.1	26.9	1,822.7
2020	153.3	3.4	54.8	23.6	16.4	0.0	0.0	155.1	1.1	6.3	40.4	40.4	206.3	80.0	9.7	1,640.9
2021	147.3	2.3	55.7	24.9	15.9	0.0	0.0	163.5	1.1	7.3	41.9	41.9	216.1	87.3	7.4	1,722.7
2022	153.5	3.2	56.2	25.2	16.0	0.0	0.0	166.4	1.1	7.5	51.5	51.5	229.8	69.2	15.5	1,756.5
2023	124.6	2.6	50.6	25.6	15.6	0.0	0.0	162.6	1.1	8.5	49.1	49.1	223.9	67.7	20.3	1,689.4

^e Conventional hydroelectric power. For 1960 through 1989, includes hydroelectric pumped-storage, 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. Beginning in 2006, includes small amount of other biomass liquids that are biodiesel.

^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 Beginning in 2006, adjusted for the double-counting of other biomass liquids that are biodiesel, which are included in both wood & waste and biodiesel, but should be counted only once in Total.

^k Solar thermal and photovoltaic energy.

^l 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.

^m Electricity traded with Canada and Mexico. Calculated by converting net imports in kilowatt-hours by 3,412 Btu per kilowatt-hour.

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>.
Data source: U.S. Energy Information Administration, State Energy Data System. See technical notes. <https://www.eia.gov/state/seds/>

Table CT3. Total end-use sector energy consumption estimates, selected years, 1960-2023, Minnesota

Year	Coal Thousand short tons	Natural gas ^a Billion cubic feet	Petroleum							Hydro-electric power ^{g,h} Million kilowatt-hours	Biomass		Geo-thermal ^h	Solar ^{h,k}	Electricity ^l Million kilowatt-hours	End use ^{h,m}	Electrical system energy losses ⁿ	Total ^{h,m}
			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						
1960	3,543	131	15,994	4,525	472	32,583	6,419	9,046	69,040	156	--	--	--	--	8,821	--	--	--
1970	2,595	283	21,805	8,887	3,491	44,122	4,316	10,277	92,898	168	--	--	--	--	20,715	--	--	--
1980	1,200	278	21,215	7,697	5,142	46,211	2,821	8,630	91,716	145	--	--	--	--	32,998	--	--	--
1990	1,462	285	19,485	5,966	5,099	47,760	959	12,185	91,455	172	--	--	--	--	47,167	--	--	--
2000	2,097	352	24,599	9,844	13,301	61,120	929	14,258	124,051	248	--	--	--	--	59,782	--	--	--
2005	1,372	342	26,207	11,161	12,656	64,697	1,631	15,668	132,020	130	--	--	--	--	66,019	--	--	--
2006	1,362	328	25,886	10,363	11,773	64,432	829	15,516	128,798	96	--	--	--	--	66,770	--	--	--
2007	1,417	354	26,937	10,401	11,275	64,627	1,278	15,379	129,898	96	--	--	--	--	68,231	--	--	--
2008	1,419	400	26,405	9,701	10,238	62,903	2,026	13,111	124,385	118	--	--	--	--	68,794	--	--	--
2009	1,221	370	23,040	10,587	9,200	61,240	686	12,083	116,836	134	--	--	--	--	64,004	--	--	--
2010	1,347	387	25,161	8,133	8,372	61,587	585	R 12,353	R 116,190	127	--	--	--	--	67,800	--	--	--
2011	1,331	393	26,412	7,955	8,129	58,738	520	R 12,295	R 114,049	117	--	--	--	--	68,533	--	--	--
2012	1,134	365	26,575	7,345	7,954	60,715	128	R 12,439	R 115,155	74	--	--	--	--	67,989	--	--	--
2013	1,276	418	27,149	9,688	9,091	60,569	95	R 12,488	R 119,081	90	--	--	--	--	68,644	--	--	--
2014	1,247	444	27,691	11,296	8,495	60,631	67	R 11,696	R 119,877	19	--	--	--	--	68,719	--	--	--
2015	966	378	25,616	9,046	8,919	62,346	92	R 12,362	R 118,382	115	--	--	--	--	66,579	--	--	--
2016	1,065	385	27,730	9,028	9,203	63,993	121	R 12,643	R 122,718	130	--	--	--	--	66,546	--	--	--
2017	1,209	403	27,825	10,572	9,495	63,511	20	10,905	122,328	156	--	--	--	--	67,153	--	--	--
2018	1,082	427	29,896	11,852	R 9,213	62,071	14	11,449	R 124,495	92	--	--	--	--	68,708	--	--	--
2019	1,000	434	30,915	13,310	R 9,606	61,762	44	12,024	R 127,661	97	--	--	--	--	66,966	--	--	--
2020	738	383	26,299	12,194	R 6,629	53,610	23	R 12,357	R 109,111	68	--	--	--	--	64,055	--	--	--
2021	790	401	26,071	11,534	R 6,462	56,840	27	R 13,409	R 114,344	51	--	--	--	--	66,589	--	--	--
2022	884	R 441	R 26,445	11,940	R 7,334	56,902	27	R 13,306	R 115,953	73	--	--	--	--	66,635	--	--	--
2023	916	405	25,742	10,716	8,429	57,322	23	13,039	115,271	58	--	--	--	--	66,216	--	--	--

Trillion Btu

1960	76.8	135.9	93.2	17.3	2.6	171.2	40.4	54.3	378.9	0.5	25.3	NA	NA	NA	30.1	647.5	60.7	708.1
1970	54.2	283.9	127.0	33.9	19.7	231.8	27.1	63.6	503.1	0.6	23.2	NA	NA	NA	70.7	935.7	144.8	1,080.5
1980	21.0	277.0	123.6	28.2	29.1	242.7	17.7	53.7	495.1	0.5	46.6	NA	NA	NA	112.6	952.7	239.5	1,192.3
1990	27.0	286.4	113.5	21.9	28.9	250.9	6.0	76.7	498.0	0.6	41.1	0.7	0.1	0.3	160.9	1,017.2	382.5	1,399.7
2000	40.5	357.4	143.1	36.4	75.4	317.9	5.8	90.3	668.9	0.8	45.6	13.4	0.2	0.3	204.0	1,331.1	404.7	1,735.8
2005	26.1	346.0	152.5	40.8	71.8	335.9	10.3	99.0	710.1	0.4	47.8	24.5	0.4	0.1	225.3	1,381.3	470.1	1,851.4
2006	25.7	333.1	150.2	37.8	66.8	334.1	5.2	97.6	691.6	0.3	44.7	31.6	0.5	0.1	227.8	1,357.5	464.0	1,821.5
2007	27.0	360.6	155.8	37.9	63.9	332.3	8.0	96.6	694.6	0.3	46.3	33.6	0.6	0.1	232.8	1,398.5	471.3	1,869.8
2008	27.2	409.9	152.6	35.7	58.1	321.2	12.7	82.2	662.5	0.4	46.9	40.1	0.7	0.2	234.7	1,424.8	449.5	1,874.4
2009	23.4	381.6	R 132.9	38.4	52.2	311.7	4.3	75.6	R 615.1	0.5	48.6	52.4	0.9	0.2	218.4	R 1,341.0	403.2	R 1,744.2
2010	25.7	390.7	R 145.2	31.2	47.5	312.1	3.7	R 77.4	R 617.0	0.4	55.2	60.2	1.0	0.2	231.3	R 1,381.8	432.2	R 1,814.0
2011	25.4	396.5	R 152.0	30.6	46.1	297.4	3.3	R 76.8	R 606.1	0.4	52.9	62.5	1.0	0.2	233.8	R 1,378.9	413.8	R 1,792.7
2012	21.4	372.0	R 152.9	28.2	45.1	307.3	0.8	R 77.7	R 612.1	0.3	49.1	56.8	1.1	0.2	232.0	R 1,345.0	402.9	R 1,747.9
2013	24.2	427.7	R 156.2	37.2	51.5	306.5	0.6	R 78.0	R 630.0	0.3	53.0	55.1	1.1	0.2	234.2	R 1,425.8	395.2	R 1,821.1
2014	23.4	458.5	R 159.1	43.4	48.2	306.7	0.4	R 73.1	R 630.9	0.1	R 58.5	60.2	1.1	0.3	234.5	R 1,467.4	401.2	R 1,868.6
2015	17.6	392.7	R 147.1	34.7	50.6	315.3	0.6	R 77.2	625.5	0.4	R 56.7	62.1	1.1	0.3	227.2	R 1,383.6	361.9	R 1,745.5
2016	19.8	398.0	R 159.2	34.7	52.2	323.5	0.8	R 80.4	R 650.7	0.4	R 54.9	62.4	1.1	0.3	227.1	R 1,414.7	355.4	R 1,770.1
2017	22.1	415.3	R 159.7	40.6	53.8	320.9	0.1	68.7	R 643.9	0.5	R 47.5	63.6	1.1	0.4	229.1	R 1,423.6	356.2	R 1,779.7
2018	19.7	446.6	R 171.3	45.5	52.2	313.7	0.1	72.5	R 655.3	0.3	R 53.3	65.0	1.1	0.5	234.4	R 1,476.3	381.2	R 1,857.6
2019	18.5	455.5	R 176.8	51.1	R 54.5	312.0	0.3	76.0	R 670.7	0.3	R 55.4	66.8	1.1	0.6	228.5	R 1,497.4	325.2	R 1,822.7
2020	13.7	403.0	R 150.4	46.8	26.2	270.8	0.1	78.1	R 572.6	0.2	R 46.1	60.3	1.1	0.7	218.6	R 1,316.3	324.6	R 1,640.9
2021	14.7	422.2	R 149.9	44.3	36.6	287.0	0.2	83.2	R 601.2	0.2	R 47.2	67.1	1.1	0.8	227.2	R 1,381.9	340.8	R 1,722.7
2022	16.4	R 464.2	R 152.0	45.9	R 41.6	287.3	0.2	R 82.6	R 609.5	0.2	R 47.3	69.0	1.1	1.0	227.4	R 1,436.3	R 320.2	R 1,756.5
2023	17.0	428.7	148.0	41.2	47.8	289.4	0.1	80.8	607.4	0.2	42.6	70.8	1.1	1.3	225.9	1,394.8	294.5	1,689.4

^a Includes supplemental gaseous fuels that are commingled with natural gas.
^b Beginning in 2009, includes biodiesel blended into distillate fuel oil. Beginning in 2011, includes renewable diesel blended into distillate fuel oil. Excludes biofuels product supplied.
^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 hydroelectric pumped-storage, 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 Electricity sales to ultimate customers reported by electric utilities and, beginning in 1996, other energy service providers.
^m 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 End use 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. Beginning in 2021, adjusted for the double-counting of biofuels product supplied.
ⁿ 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 sector 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>.
 Data source: U.S. Energy Information Administration, State Energy Data System. See technical notes. <https://www.eia.gov/state/seds/>

Table CT4. Residential sector energy consumption estimates, selected years, 1960-2023, Minnesota

Year	Coal ^a Thousand short tons	Natural gas ^b Billion cubic feet	Petroleum				Biomass Wood ^f	Geothermal ^g	Solar ^{g,h}	Electricity ⁱ Million kilowatthours	End use ^{g,j}	Electrical system energy losses ^k	Total ^{e,g,j}
			Distillate fuel oil ^c	HGL ^d	Kerosene	Total ^e							
1960	557	61	5,414	3,192	1,748	10,354	--	--	4,186	--	--	--	
1965	352	86	6,309	4,152	1,556	12,017	--	--	6,063	--	--	--	
1970	320	102	7,197	6,563	1,195	14,955	--	--	9,031	--	--	--	
1975	70	114	7,242	6,203	558	14,004	--	--	10,189	--	--	--	
1980	30	103	5,946	3,008	114	9,069	--	--	11,749	--	--	--	
1985	48	107	3,973	2,465	137	6,574	--	--	13,261	--	--	--	
1990	36	107	3,743	3,012	30	6,786	--	--	14,858	--	--	--	
1995	34	129	3,085	4,567	50	7,702	--	--	16,974	--	--	--	
2000	1	130	2,294	5,583	33	7,910	--	--	18,629	--	--	--	
2005	6	129	1,956	5,197	27	7,181	--	--	21,743	--	--	--	
2006	8	117	1,541	4,894	18	6,454	--	--	21,909	--	--	--	
2007	6	129	1,544	5,111	11	6,666	--	--	22,646	--	--	--	
2008	0	139	1,711	5,307	8	7,026	--	--	22,357	--	--	--	
2009	0	133	1,018	5,377	18	6,413	--	--	22,034	--	--	--	
2010	0	123	1,169	5,058	20	6,247	--	--	22,465	--	--	--	
2011	0	125	987	5,075	13	6,075	--	--	22,524	--	--	--	
2012	0	109	821	4,408	5	5,234	--	--	22,060	--	--	--	
2013	0	140	966	5,136	9	6,111	--	--	22,850	--	--	--	
2014	0	147	896	6,113	12	7,021	--	--	22,791	--	--	--	
2015	0	118	770	5,317	8	6,095	--	--	21,714	--	--	--	
2016	0	118	791	5,280	13	6,084	--	--	21,804	--	--	--	
2017	0	124	628	6,497	9	7,134	--	--	21,574	--	--	--	
2018	0	141	689	7,314	9	8,013	--	--	22,837	--	--	--	
2019	0	145	560	8,051	14	8,625	--	--	22,288	--	--	--	
2020	0	130	500	7,324	14	7,839	--	--	22,936	--	--	--	
2021	0	131	763	6,975	10	7,748	--	--	23,246	--	--	--	
2022	0	151	850	7,746	10	8,606	--	--	23,418	--	--	--	
2023	0	130	792	6,960	17	7,768	--	--	23,023	--	--	--	

Trillion Btu

1960	12.2	63.6	31.5	12.3	9.9	53.7	17.6	NA	NA	14.3	161.4	28.8	190.2
1965	7.7	86.3	36.7	15.9	8.8	61.5	13.6	NA	NA	20.7	189.8	40.7	230.5
1970	6.8	102.0	41.9	25.2	6.8	73.9	11.2	NA	NA	30.8	224.6	63.1	287.8
1975	1.3	114.7	42.2	23.8	3.2	69.2	11.3	NA	NA	34.8	231.2	71.0	302.2
1980	0.6	103.1	34.6	11.6	0.6	46.8	14.9	NA	NA	40.1	205.5	85.3	290.8
1985	0.9	107.1	23.1	9.5	0.8	33.4	19.1	NA	NA	45.2	205.8	91.9	297.7
1990	0.6	107.4	21.8	11.6	0.2	33.5	11.2	0.1	0.3	50.7	204.0	120.5	324.4
1995	0.7	130.4	18.0	17.5	0.3	35.8	10.0	0.2	0.4	57.9	235.2	122.7	357.9
2000	(s)	131.7	13.3	21.4	0.2	35.0	7.9	0.2	0.3	63.6	238.7	126.1	364.8
2005	0.1	130.2	11.4	20.0	0.2	31.5	10.7	0.4	0.1	74.2	247.2	154.8	402.0
2006	0.1	119.1	8.9	18.8	0.1	27.8	9.5	0.5	0.1	74.8	232.0	152.3	384.2
2007	0.1	131.4	8.9	19.6	0.1	28.6	10.5	0.6	0.1	77.3	248.6	156.4	405.0
2008	0.0	142.8	9.9	20.4	(s)	30.3	11.7	0.7	0.2	76.3	262.0	146.1	408.1
2009	0.0	137.3	5.9	20.7	0.1	26.6	14.0	0.9	0.2	75.2	254.3	138.8	393.1
2010	0.0	124.2	6.7	19.4	0.1	26.3	15.0	1.0	0.2	76.6	243.4	143.2	386.6
2011	0.0	126.4	5.7	19.5	0.1	25.3	14.6	1.0	0.2	76.9	244.3	136.0	380.3
2012	0.0	111.2	4.7	16.9	(s)	21.7	12.2	1.1	0.2	75.3	221.6	130.7	352.3
2013	0.0	143.1	5.6	19.7	0.1	R 25.4	15.9	1.1	0.2	78.0	263.6	131.6	395.1
2014	0.0	151.4	5.2	23.5	0.1	28.7	16.1	1.1	0.2	77.8	275.3	133.1	408.3
2015	0.0	122.1	4.4	20.4	(s)	24.9	17.6	1.1	0.2	74.1	240.0	118.0	358.0
2016	0.0	121.7	4.6	20.3	0.1	24.9	14.7	1.1	0.3	74.4	237.1	116.4	353.5
2017	0.0	127.7	3.6	25.0	0.1	28.6	R 14.0	1.1	0.3	73.6	245.3	114.4	359.7
2018	0.0	147.9	4.0	28.1	0.1	32.1	18.9	1.1	0.4	77.9	R 278.3	126.7	R 405.0
2019	0.0	151.8	3.2	30.9	0.1	34.2	R 21.1	1.1	0.4	76.0	284.6	108.2	R 392.9
2020	0.0	136.8	2.9	28.1	0.1	31.1	R 13.8	1.1	0.5	78.3	R 261.5	116.2	R 377.7
2021	0.0	137.6	4.4	26.8	0.1	31.2	R 13.9	1.1	0.6	79.3	R 263.7	119.0	R 382.7
2022	0.0	R 158.5	4.9	29.8	0.1	34.7	R 17.9	1.1	0.7	79.9	R 292.9	R 112.5	R 405.4
2023	0.0	138.0	4.6	26.7	0.1	31.4	15.1	1.1	0.9	78.6	265.0	102.4	367.4

^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 Beginning in 2013, includes biodiesel blended into distillate fuel oil.
^d Hydrocarbon gas liquids, assumed to be propane only.
^e Wood and wood-derived fuels.
^f Beginning in 2021, includes small amounts of other petroleum products (biofuels product supplied) not shown separately.
^g There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of renewable energy sources beginning in 1989.
^h Solar thermal and photovoltaic energy. Includes solar thermal energy consumed as heat by the commercial and industrial sectors.
ⁱ Electricity sales to ultimate customers reported by electric utilities and, beginning in 1996, other energy service providers.
^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 End use and Total.
^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.
 -- = 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>.
 Data source: U.S. Energy Information Administration, State Energy Data System. See technical notes. <https://www.eia.gov/state/seds/>

MINNESOTA Table CT5. Commercial sector energy consumption estimates, selected years, 1960-2023, Minnesota

Year	Coal Thousand short tons	Natural gas ^a Billion cubic feet	Petroleum					Hydro-electric power ^{f,g} Million kilowatt-hours	Biomass Wood and waste ^{g,h}	Geothermal ^g	Solar ^{g,i} Million kilowatt-hours	Electricity ^j Million kilowatt-hours	End use ^{g,k}	Electrical system energy losses ^l	Total ^{e,g,k}	
			Distillate fuel oil ^b	HGL ^c	Kerosene	Motor gasoline ^d	Residual fuel oil									Total ^e
			Thousand barrels													
1960	387	20	1,323	464	378	142	634	2,942	NA	--	--	NA	1,540	--	--	
1965	265	27	1,542	604	337	158	414	3,055	NA	--	--	NA	2,026	--	--	
1970	252	77	1,759	955	259	235	393	3,601	NA	--	--	NA	3,178	--	--	
1975	163	90	1,770	902	121	355	223	3,372	NA	--	--	NA	4,845	--	--	
1980	113	64	1,443	438	0	340	32	2,252	NA	--	--	NA	5,724	--	--	
1985	171	77	2,845	359	24	335	223	3,786	NA	--	--	NA	7,469	--	--	
1990	143	78	1,091	438	5	1,568	259	3,362	0	--	--	(s)	8,813	--	--	
1995	229	91	862	664	23	50	111	1,711	0	--	--	(s)	10,407	--	--	
2000	5	95	889	812	54	50	137	1,942	0	--	--	(s)	12,311	--	--	
2005	67	96	1,002	709	14	53	306	2,083	0	--	--	(s)	21,985	--	--	
2006	83	87	666	680	12	1,378	235	2,971	0	--	--	(s)	22,175	--	--	
2007	57	91	727	581	10	941	88	2,347	0	--	--	(s)	22,523	--	--	
2008	60	100	932	959	7	861	186	2,945	0	--	--	1	22,604	--	--	
2009	54	96	1,045	789	3	652	190	2,680	0	--	--	1	22,311	--	--	
2010	42	90	808	671	6	686	182	2,353	0	--	--	2	22,515	--	--	
2011	36	94	1,048	777	3	631	132	2,590	0	--	--	3	22,371	--	--	
2012	3	83	968	678	0	682	15	2,343	0	--	--	6	22,496	--	--	
2013	6	106	1,218	946	3	618	4	2,788	0	--	--	6	23,041	--	--	
2014	10	111	1,241	1,075	2	635	8	2,960	0	--	--	10	22,828	--	--	
2015	8	93	1,054	988	1	1,523	1	3,567	0	--	--	14	23,388	--	--	
2016	10	93	971	1,129	4	1,569	4	3,676	0	--	--	17	23,502	--	--	
2017	8	100	1,081	1,326	1	998	5	3,411	0	--	--	24	23,274	--	--	
2018	6	110	852	1,622	2	1,014	4	3,494	0	--	--	28	23,399	--	--	
2019	5	113	775	1,440	2	1,024	2	3,242	0	--	--	35	22,904	--	--	
2020	4	102	617	1,519	2	1,030	0	3,167	0	--	--	44	21,527	--	--	
2021	6	102	930	1,488	2	1,039	4	3,463	0	--	--	52	22,093	--	--	
2022	4	R 120	1,024	1,679	2	1,744	4	4,452	0	--	--	71	22,549	--	--	
2023	2	107	953	1,318	3	1,049	3	3,326	0	--	--	88	22,614	--	--	

Trillion Btu																
1960	8.5	21.0	7.7	1.8	2.1	0.7	4.0	16.4	NA	0.3	NA	NA	5.3	51.5	10.6	62.1
1965	5.8	26.8	9.0	2.3	1.9	0.8	2.6	16.6	NA	0.3	NA	NA	6.9	56.4	13.6	70.0
1970	5.3	76.7	10.2	3.7	1.5	1.2	2.5	19.1	NA	0.2	NA	NA	10.8	112.2	22.2	134.4
1975	3.1	89.9	10.3	3.5	0.7	1.9	1.4	17.7	NA	0.2	NA	NA	16.5	127.5	33.8	161.2
1980	2.4	63.6	8.4	1.7	0.0	1.8	0.2	12.1	NA	0.4	NA	NA	19.5	97.9	41.5	139.5
1985	3.3	77.3	16.6	1.4	0.1	1.8	1.4	21.2	NA	0.5	NA	NA	25.5	127.8	51.8	179.6
1990	2.6	78.3	6.4	1.7	(s)	8.2	1.6	17.9	0.0	1.9	0.0	(s)	30.1	130.8	71.5	202.3
1995	4.6	91.8	5.0	2.6	0.1	0.3	0.7	9.7	0.0	2.0	0.0	(s)	35.5	142.6	75.2	217.8
2000	0.1	96.8	5.2	3.1	0.3	0.3	0.9	9.7	0.0	2.0	0.0	(s)	42.0	150.6	83.3	233.9
2005	1.3	97.1	5.8	2.7	0.1	0.3	1.9	10.8	0.0	2.1	0.0	(s)	75.0	186.3	156.6	342.8
2006	1.5	88.6	3.9	2.6	0.1	7.1	1.5	15.2	0.0	2.2	0.0	(s)	75.7	183.1	154.1	337.2
2007	1.1	93.1	4.2	2.2	0.1	4.8	0.6	11.9	0.0	2.2	0.0	(s)	76.8	185.2	155.6	340.7
2008	1.1	101.9	5.4	3.7	(s)	4.4	1.2	14.7	0.0	2.4	0.0	(s)	77.1	197.1	147.7	344.8
2009	1.0	99.1	6.0	3.0	(s)	3.3	1.2	13.6	0.0	2.5	0.0	(s)	76.1	192.3	140.6	332.9
2010	0.8	90.9	4.7	2.6	(s)	3.5	1.1	11.9	0.0	2.6	0.0	(s)	76.8	182.9	143.5	326.5
2011	0.6	95.3	6.0	3.0	(s)	3.2	0.8	13.1	0.0	2.5	0.0	(s)	76.3	187.9	135.1	323.0
2012	0.1	84.7	5.6	2.6	(s)	3.5	0.1	11.7	0.0	2.3	0.0	(s)	76.8	175.7	133.3	309.0
2013	0.1	108.3	7.0	3.6	(s)	3.1	(s)	13.8	0.0	2.6	0.0	(s)	78.6	R 203.6	132.7	R 336.2
2014	0.2	114.5	7.2	4.1	(s)	3.2	0.1	14.6	0.0	R 5.1	0.0	(s)	77.9	R 212.3	133.3	R 345.6
2015	0.2	96.6	6.1	3.8	(s)	7.7	(s)	17.6	0.0	R 5.3	0.0	(s)	79.8	R 199.6	127.1	R 326.7
2016	0.2	95.8	5.6	4.3	(s)	7.9	(s)	17.9	0.0	R 5.8	0.0	0.1	80.2	R 200.1	125.5	R 325.6
2017	0.1	102.8	6.2	5.1	(s)	5.0	(s)	16.4	0.0	R 6.0	0.0	0.1	79.4	R 205.0	123.4	R 328.4
2018	0.1	115.1	4.9	6.2	(s)	5.1	(s)	16.3	0.0	R 6.4	0.0	0.1	79.8	R 217.9	129.8	R 347.8
2019	0.1	119.1	4.5	5.5	(s)	5.2	(s)	15.2	0.0	R 6.3	0.0	0.1	78.1	R 219.1	111.2	R 330.3
2020	0.1	106.7	3.6	5.8	(s)	5.2	0.0	14.6	0.0	5.1	0.0	0.1	73.4	R 200.1	109.1	R 309.2
2021	0.1	107.7	5.4	5.7	(s)	5.2	(s)	16.4	0.0	R 5.0	0.0	0.2	75.4	R 204.8	113.1	R 317.9
2022	0.1	R 125.7	5.9	6.4	(s)	8.8	(s)	21.2	0.0	R 5.5	0.0	0.2	76.9	R 229.8	R 108.3	R 338.1
2023	(s)	113.5	5.5	5.1	(s)	5.3	(s)	15.9	0.0	4.6	0.0	0.3	77.2	211.4	100.6	312.0

^a Includes supplemental gaseous fuels that are commingled with natural gas.
^b Beginning in 2013, includes biodiesel blended into distillate fuel oil.
^c Hydrocarbon gas liquids, assumed to be propane only.
^d 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.
^e Includes small amounts of petroleum coke and, beginning in 2021 other petroleum products (biofuels product supplied), not shown separately.
^f Conventional hydroelectric power. For 1960 through 1989, includes hydroelectric pumped-storage, which cannot be separately identified.
^g There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of renewable energy sources beginning in 1989.
^h Wood, wood-derived fuels, and biomass waste. Prior to 2001, includes non-biomass waste.
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 Electricity sales to ultimate customers reported by electric utilities and, beginning in 1996, other energy service providers.

^k 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 End use 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.
^l 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>.
 Data source: U.S. Energy Information Administration, State Energy Data System. See technical notes. <https://www.eia.gov/state/seds/>

Table CT6. Industrial sector energy consumption estimates, selected years, 1960-2023, Minnesota

Year	Coal Thousand short tons	Natural gas ^a Billion cubic feet	Petroleum						Hydro-electric power ^{e,f} Million kWh	Biomass		Geo-thermal ^f	Solar ^{f,i} Million kWh	Electricity ^j Million kWh	End use ^{f,k}	Electrical system energy losses ^l	Total ^{f,k}
			Distillate fuel oil	HGL ^b	Motor gasoline ^c	Residual fuel oil	Other ^d	Total		Wood and waste ^{f,g}	Losses and co-products ^h						
1960	2,555	49	6,062	841	4,266	5,690	5,024	21,884	156	--	--	NA	3,095	--	--	--	
1965	2,776	83	7,651	988	3,947	4,213	6,593	23,392	178	--	--	NA	4,677	--	--	--	
1970	2,020	98	7,784	1,275	3,608	3,894	7,919	24,480	168	--	--	NA	8,506	--	--	--	
1975	2,292	101	7,991	1,985	3,132	2,675	9,183	24,965	189	--	--	NA	11,280	--	--	--	
1980	1,057	101	5,708	4,183	1,336	1,818	7,527	20,573	145	--	--	NA	15,525	--	--	--	
1985	1,027	66	4,985	2,406	1,718	481	8,206	17,796	145	--	--	NA	17,934	--	--	--	
1990	1,283	88	5,483	2,459	1,117	700	11,122	20,880	172	--	--	(s)	23,497	--	--	--	
1995	1,401	106	6,031	4,392	1,192	536	12,012	24,163	224	--	--	(s)	26,577	--	--	--	
2000	2,092	106	4,857	3,442	996	570	13,206	23,070	248	--	--	(s)	28,842	--	--	--	
2005	1,300	95	5,741	5,156	1,299	1,092	14,824	28,112	130	--	--	(s)	22,266	--	--	--	
2006	1,271	103	5,296	4,702	1,228	396	14,717	26,339	96	--	--	(s)	22,664	--	--	--	
2007	1,354	114	5,150	4,618	1,476	789	14,566	26,599	96	--	--	(s)	23,041	--	--	--	
2008	1,359	144	6,017	3,265	924	1,203	12,364	23,773	118	--	--	(s)	23,810	--	--	--	
2009	1,167	128	5,417	4,306	987	336	11,333	22,380	134	--	--	(s)	19,637	--	--	--	
2010	1,305	158	6,722	2,384	1,302	198	11,809	22,416	127	--	--	(s)	22,798	--	--	--	
2011	1,295	158	6,776	2,083	1,321	251	11,769	22,200	117	--	--	(s)	23,619	--	--	--	
2012	1,131	160	6,814	2,242	1,332	42	11,943	22,373	74	--	--	(s)	23,416	--	--	--	
2013	1,270	161	7,080	3,582	1,444	15	11,986	24,106	90	--	--	(s)	22,734	--	--	--	
2014	1,236	174	7,215	4,083	1,214	11	11,816	23,712	115	--	--	1	23,076	--	--	--	
2015	957	157	6,140	2,710	1,194	10	11,190	21,871	115	--	--	2	21,453	--	--	--	
2016	1,055	163	5,971	2,583	1,305	5	12,090	21,953	130	--	--	3	21,217	--	--	--	
2017	1,201	166	6,147	2,699	1,316	15	10,396	20,573	156	--	--	5	22,281	--	--	--	
2018	1,076	162	6,840	2,897	1,330	9	10,953	22,029	92	--	--	10	22,447	--	--	--	
2019	995	162	7,251	3,734	1,281	43	11,536	23,845	97	--	--	12	21,748	--	--	--	
2020	734	141	6,922	3,323	1,295	23	11,942	23,505	68	--	--	17	19,572	--	--	--	
2021	784	152	6,404	3,050	1,268	23	11,283	22,028	51	--	--	21	21,227	--	--	--	
2022	880	R 154	6,473	2,410	1,328	23	R 11,110	R 21,344	73	--	--	23	20,649	--	--	--	
2023	913	153	6,319	2,328	1,226	19	10,850	20,742	58	--	--	23	20,561	--	--	--	

Trillion Btu																	
1960	55.2	51.0	35.3	3.2	22.4	35.8	31.9	128.6	0.5	7.4	NA	NA	NA	10.6	253.2	21.3	274.5
1965	60.8	82.6	44.6	3.7	20.7	26.5	41.7	137.2	0.6	9.3	NA	NA	NA	16.0	306.5	31.4	337.9
1970	42.1	97.8	45.3	4.7	19.0	24.5	50.1	143.5	0.6	11.8	NA	NA	NA	29.0	324.8	59.4	384.2
1975	50.8	100.8	46.5	7.0	16.5	16.8	57.8	144.6	0.6	15.9	NA	NA	NA	38.5	351.2	78.6	429.7
1980	18.1	101.2	33.3	14.7	7.0	11.4	47.3	113.7	0.5	31.3	NA	NA	NA	53.0	317.7	112.7	430.4
1985	21.3	66.6	29.0	8.2	9.0	3.0	52.9	102.2	0.5	36.7	0.0	NA	NA	61.2	288.5	124.3	412.8
1990	23.8	88.7	31.9	8.5	5.9	4.4	70.5	121.2	0.6	28.0	0.7	(s)	80.2	343.2	190.6	533.8	
1995	26.7	107.6	35.1	15.2	6.2	3.4	76.2	136.1	0.8	35.6	3.2	(s)	90.7	400.6	192.1	592.6	
2000	40.4	107.5	28.3	11.8	5.2	3.6	84.1	132.9	0.8	35.7	13.4	(s)	98.4	429.0	195.2	624.3	
2005	24.7	96.2	33.4	17.7	6.7	6.9	94.0	158.7	0.4	35.1	24.5	(s)	76.0	415.4	158.6	574.0	
2006	24.1	104.7	30.7	16.1	6.4	2.5	92.8	148.5	0.3	33.0	31.6	(s)	77.3	419.6	157.5	577.1	
2007	25.8	115.8	29.8	15.7	7.6	5.0	91.8	149.8	0.3	33.6	33.6	(s)	78.6	437.4	159.1	596.6	
2008	26.1	147.2	34.8	11.0	4.7	7.6	77.8	135.8	0.4	32.9	40.1	(s)	81.2	463.7	155.6	619.3	
2009	22.4	132.2	31.3	14.3	5.0	2.1	71.2	123.9	0.5	32.1	52.4	(s)	67.0	430.4	123.7	554.1	
2010	24.9	160.0	38.8	9.2	6.6	1.2	R 74.2	R 130.0	0.4	37.6	60.2	(s)	77.8	R 491.0	145.3	R 636.3	
2011	24.7	159.4	39.1	8.0	6.7	1.6	R 73.7	R 129.1	0.4	35.9	62.5	(s)	80.6	R 492.5	142.6	R 635.1	
2012	21.4	163.0	39.3	8.6	6.7	0.3	R 74.8	R 129.7	0.3	34.6	56.8	(s)	79.9	R 485.7	138.8	R 624.4	
2013	24.1	164.4	40.8	13.8	7.3	0.1	R 75.0	R 137.0	0.3	34.5	55.1	(s)	77.6	R 492.9	130.9	R 623.8	
2014	23.2	179.2	41.6	15.7	6.1	0.1	R 70.1	R 133.6	0.1	37.3	60.2	(s)	78.7	R 512.3	134.7	R 647.0	
2015	17.5	163.4	35.4	10.4	6.0	0.1	R 74.0	R 125.9	0.4	33.7	62.1	(s)	73.2	R 476.2	116.6	R 592.9	
2016	19.6	168.5	34.4	9.9	6.6	(s)	R 77.2	R 128.1	0.4	34.3	62.4	(s)	72.4	R 485.7	113.3	R 599.0	
2017	21.9	171.0	35.4	10.4	6.6	0.1	65.7	118.2	0.5	27.5	63.6	(s)	76.0	478.8	118.2	597.0	
2018	19.6	169.0	39.4	11.1	6.7	0.1	69.5	126.8	0.3	27.9	65.0	(s)	76.6	485.3	124.6	609.8	
2019	18.4	170.6	41.8	14.3	6.5	0.3	73.1	R 136.0	0.3	28.1	66.8	(s)	74.2	494.4	105.6	600.0	
2020	13.7	147.8	39.8	12.8	6.5	0.1	75.7	135.0	0.2	27.2	60.3	0.0	66.8	451.0	99.2	550.2	
2021	14.6	160.6	36.9	11.7	6.4	0.1	71.6	126.8	0.2	28.4	67.1	0.0	72.4	470.1	108.6	R 578.7	
2022	16.4	R 161.5	37.3	9.3	6.7	0.1	R 70.6	R 124.0	0.2	R 23.8	69.0	0.0	70.5	R 465.5	R 99.2	R 564.7	
2023	16.9	162.3	36.4	8.9	6.2	0.1	68.9	120.6	0.2	22.9	70.8	0.0	70.2	463.9	91.5	555.4	

^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 hydroelectric pumped-storage, 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 Electricity sales to ultimate customers reported by electric utilities and, beginning in 1996, other energy service providers.
^k 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 End use 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.
^l 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>.
 Data source: U.S. Energy Information Administration, State Energy Data System. See technical notes. <https://www.eia.gov/state/seds/>

MINNESOTA Table CT7. Transportation sector energy consumption estimates, selected years, 1960-2023, Minnesota

Year	Coal Thousand short tons	Natural gas ^a Billion cubic feet	Petroleum								Electricity ^g Million kilowatthours	End use ^{h,i}	Electrical system energy losses ^j	Total ^{f,h,i}
			Aviation gasoline	Distillate fuel oil ^b	HGL ^c	Jet fuel ^d	Lubricants	Motor gasoline ^e	Residual fuel oil	Total ^f				
			Thousand barrels											
1960	44	(s)	1,199	3,194	27	472	697	28,176	95	33,860	0	--	--	--
1965	9	1	803	3,276	37	2,624	596	31,173	75	38,584	0	--	--	--
1970	3	7	277	5,064	95	3,491	628	40,279	29	49,863	0	--	--	--
1975	(s)	4	215	6,691	97	5,629	752	44,766	577	58,726	0	--	--	--
1980	0	9	193	8,117	68	5,142	796	44,535	971	59,822	0	--	--	--
1985	0	6	154	8,038	123	7,781	724	43,232	155	60,209	0	--	--	--
1990	0	12	214	9,168	57	5,099	815	45,075	0	60,427	0	--	--	--
1995	0	19	129	12,926	134	9,969	778	53,061	0	76,997	0	--	--	--
2000	0	21	136	16,559	7	13,301	831	60,074	222	91,129	0	--	--	--
2005	0	22	102	17,508	99	12,656	701	63,344	234	94,645	25	--	--	--
2006	0	20	86	18,383	87	11,773	683	61,825	199	93,035	21	--	--	--
2007	0	20	87	19,515	92	11,275	705	62,210	402	94,285	21	--	--	--
2008	0	18	78	17,745	171	10,238	654	61,118	636	90,641	22	--	--	--
2009	0	13	141	15,559	115	9,200	588	59,601	159	85,363	22	--	--	--
2010	0	15	87	16,462	20	8,372	431	59,598	204	85,175	22	--	--	--
2011	0	15	94	17,602	21	8,129	415	56,786	137	83,183	19	--	--	--
2012	0	13	94	17,973	17	7,954	395	58,700	71	85,205	17	--	--	--
2013	0	12	85	17,885	25	9,091	406	58,508	76	86,075	19	--	--	--
2014	0	13	74	18,338	25	8,495	419	58,782	49	86,183	24	--	--	--
2015	0	10	84	17,652	32	8,919	452	59,629	81	86,848	24	--	--	--
2016	0	12	76	19,997	37	9,203	460	61,118	113	91,005	24	--	--	--
2017	0	13	78	19,969	50	R 9,495	421	61,197	0	R 91,210	24	--	--	--
2018	0	14	78	21,516	19	R 9,213	407	59,727	0	R 90,958	26	--	--	--
2019	0	13	76	22,329	85	R 9,606	396	59,457	0	R 91,950	25	--	--	--
2020	0	11	75	18,260	28	R 4,629	324	51,285	0	R 74,601	20	--	--	--
2021	0	16	80	17,974	20	R 6,462	335	54,534	0	R 81,104	23	--	--	--
2022	0	R 18	83	R 18,098	106	R 7,334	R 353	53,830	0	R 81,551	20	--	--	--
2023	0	14	79	17,678	111	8,429	259	55,047	0	83,435	18	--	--	--

Trillion Btu

1960	0.9	0.3	6.1	18.6	0.1	2.6	4.2	148.0	0.6	180.2	0.0	181.4	0.0	181.4
1965	0.2	1.2	4.1	19.1	0.1	14.8	3.6	163.8	0.5	205.9	0.0	207.3	0.0	207.3
1970	0.1	7.5	1.4	29.5	0.4	19.7	3.8	211.6	0.2	266.6	0.0	274.1	0.0	274.1
1975	(s)	3.9	1.1	39.0	0.4	31.9	4.6	235.2	3.6	315.6	0.0	319.5	0.0	319.5
1980	0.0	9.1	1.0	47.3	0.3	29.1	4.8	233.9	6.1	322.5	0.0	331.6	0.0	331.6
1985	0.0	6.3	0.8	46.8	0.5	44.1	4.4	227.1	1.0	324.6	0.0	333.0	0.0	333.0
1990	0.0	12.1	1.1	53.4	0.2	28.9	4.9	236.8	0.0	325.3	0.0	339.2	0.0	339.2
1995	0.0	19.4	0.7	75.2	0.5	56.5	4.7	276.1	0.0	413.8	0.0	433.2	0.0	433.2
2000	0.0	21.4	0.7	96.4	(s)	75.4	5.0	312.4	1.4	491.4	0.0	512.8	0.0	512.8
2005	0.0	22.5	0.5	101.9	0.4	71.8	4.2	328.9	1.5	509.1	0.1	532.4	0.2	532.6
2006	0.0	20.7	0.4	106.7	0.3	66.8	4.1	320.6	1.2	500.1	0.1	522.8	0.1	523.0
2007	0.0	20.3	0.4	112.9	0.4	63.9	4.3	319.9	2.5	504.3	0.1	527.3	0.1	527.4
2008	0.0	18.0	0.4	102.6	0.7	58.1	4.0	312.1	4.0	R 481.7	0.1	R 502.0	0.1	R 502.2
2009	0.0	13.0	0.7	R 89.7	0.4	52.2	3.6	303.4	1.0	R 450.9	0.1	R 463.9	0.1	R 464.1
2010	0.0	15.6	0.4	R 94.9	0.1	47.5	2.6	302.0	1.3	R 448.8	0.1	R 464.5	0.1	R 464.6
2011	0.0	15.4	0.5	R 101.2	0.1	46.1	2.5	287.5	0.9	R 438.7	0.1	R 454.1	0.1	R 454.3
2012	0.0	13.1	0.5	R 103.3	0.1	45.1	2.4	297.1	0.4	R 448.9	0.1	R 462.0	0.1	R 462.1
2013	0.0	11.9	0.4	R 102.8	0.1	51.5	2.5	296.1	0.5	R 453.8	0.1	R 465.8	0.1	R 465.9
2014	0.0	13.4	0.4	R 105.2	0.1	48.2	2.5	297.4	0.3	R 454.1	0.1	R 467.6	0.1	R 467.7
2015	0.0	10.6	0.4	R 101.2	0.1	50.6	2.7	301.5	0.5	R 457.1	0.1	R 467.8	0.1	R 467.9
2016	0.0	12.0	0.4	R 114.6	0.1	52.2	2.8	309.0	0.7	R 479.8	0.1	R 491.8	0.1	R 492.0
2017	0.0	13.8	0.4	R 114.5	0.2	53.8	2.6	309.2	0.0	R 480.7	0.1	R 494.5	0.1	R 494.7
2018	0.0	14.7	0.4	R 123.0	0.1	52.2	2.5	301.9	0.0	R 480.0	0.1	R 494.9	0.1	R 495.0
2019	0.0	13.9	0.4	R 127.4	0.3	R 54.5	2.4	300.4	0.0	R 485.3	0.1	R 499.4	0.1	R 499.5
2020	0.0	11.7	0.4	R 104.1	0.1	26.2	2.0	259.1	0.0	R 391.9	0.1	R 403.7	0.1	R 403.8
2021	0.0	16.4	0.4	R 103.2	0.1	36.6	2.0	275.4	0.0	R 426.8	0.1	R 443.3	0.1	R 443.4
2022	0.0	R 18.5	0.4	R 103.9	0.4	R 41.6	2.1	271.8	0.0	R 429.6	0.1	R 448.2	0.1	R 448.3
2023	0.0	14.9	0.4	101.6	0.4	47.8	1.6	277.9	0.0	439.5	0.1	454.5	0.1	454.6

^a Transportation use of natural gas to operate pipelines and, since 1990, also includes vehicle fuel.

^b Beginning in 2009, includes biodiesel blended into distillate fuel oil. Beginning in 2011, includes renewable diesel 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." There is a discontinuity in this time series between 2009 and 2010 because of data source and methodology changes. See technical notes.

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

^f Beginning in 2021, includes other petroleum products (biofuels product supplied) not shown separately.

^g Electricity sales to ultimate customers reported by electric utilities and, beginning in 1996, other energy service providers. Sales to public railroads and railway systems only. Excludes electric vehicles.

^h There is a discontinuity in this time series between 1980 and 1981 due to the expanded coverage of fuel ethanol beginning in 1981.

ⁱ For 1981 through 1992, includes fuel ethanol blended into motor gasoline that is not included in the motor gasoline column.

^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.
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>.

Data source: U.S. Energy Information Administration, State Energy Data System. See technical notes. <https://www.eia.gov/state/seds/>

Table CT8. Electric power sector consumption estimates, selected years, 1960-2023, Minnesota

Year	Coal Thousand short tons	Natural gas ^a Billion cubic feet	Petroleum				Nuclear electric power Million kilowatthours	Hydroelectric power ^d Million kilowatthours	Biomass Wood and waste ^{e,f} Million kilowatthours	Geothermal ^f Million kilowatthours	Solar ^g Million kilowatthours	Wind ^f Million kilowatthours	Electricity net imports ^h	Total ^{f,i}
			Distillate fuel oil ^b	Petroleum coke	Residual fuel oil ^c	Total								
			Thousand barrels											
1960	2,433	49	156	0	239	395	0	731	--	0	NA	NA	90	--
1965	3,857	51	182	0	278	460	143	915	--	0	NA	NA	111	--
1970	6,192	59	551	143	842	1,537	0	726	--	0	NA	NA	127	--
1975	7,595	23	674	59	851	1,584	9,750	728	--	0	NA	NA	185	--
1980	12,610	8	167	0	361	529	10,027	642	--	0	NA	NA	953	--
1985	11,498	1	49	0	(s)	49	11,572	829	--	0	0	0	2,668	--
1990	16,916	5	91	727	1	820	12,139	685	--	0	0	(s)	728	--
1995	17,282	8	134	770	0	904	13,243	874	--	0	0	57	8,441	--
2000	18,639	10	246	1,080	1	1,327	12,960	684	--	0	0	725	7,892	--
2005	20,008	26	232	1,109	78	1,420	12,835	645	--	0	0	1,582	7,811	--
2006	19,573	25	149	757	21	928	13,183	475	--	0	0	2,055	7,925	--
2007	19,178	35	397	336	70	803	13,103	558	--	0	0	2,639	6,858	--
2008	18,763	25	157	277	25	458	12,997	609	--	0	0	4,355	7,768	--
2009	17,355	24	122	0	5	128	12,393	675	--	0	0	5,053	7,792	--
2010	16,582	36	64	0	0	64	13,478	713	--	0	0	4,780	7,106	--
2011	16,515	28	52	0	0	52	11,959	629	--	0	0	6,703	7,710	--
2012	13,384	57	59	0	0	59	11,944	487	--	0	0	8,148	6,514	--
2013	13,765	50	68	0	0	68	10,708	421	--	0	3	8,231	7,917	--
2014	16,534	30	117	0	0	117	12,707	529	--	0	3	9,661	6,748	--
2015	14,459	53	58	0	0	58	12,039	734	--	0	3	9,750	7,921	--
2016	13,686	65	61	0	0	61	13,861	1,078	--	0	10	9,905	8,477	--
2017	13,359	49	56	0	0	56	13,904	1,102	--	0	596	11,111	7,198	--
2018	13,813	63	76	0	0	76	14,601	962	--	0	1,042	10,688	3,852	--
2019	10,604	87	99	0	0	99	14,105	959	--	0	1,249	10,940	7,880	--
2020	8,467	86	52	0	0	52	14,677	934	--	0	1,634	11,806	2,838	--
2021	9,360	94	214	0	0	214	14,123	628	--	0	1,893	12,248	2,178	--
2022	9,594	66	100	0	0	100	14,696	877	--	0	1,901	15,065	4,553	--
2023	7,483	101	157	0	0	157	11,924	693	--	0	2,094	14,379	5,958	--

Trillion Btu

1960	54.5	50.2	0.9	0.0	1.5	2.4	0.0	2.5	0.2	0.0	NA	NA	0.3	110.1
1965	85.5	51.3	1.1	0.0	1.7	2.8	1.7	3.1	0.1	0.0	NA	NA	0.4	145.0
1970	125.5	59.1	3.2	0.9	5.3	9.4	0.0	2.5	0.2	0.0	NA	NA	0.4	197.1
1975	136.3	22.3	3.9	0.4	5.4	9.6	107.4	2.5	(s)	0.0	NA	NA	0.6	278.8
1980	221.4	8.0	1.0	0.0	2.3	3.2	109.4	2.2	(s)	0.0	NA	NA	3.3	347.5
1985	200.6	1.3	0.3	0.0	(s)	0.3	122.9	2.8	(s)	0.0	0.0	0.0	9.1	337.1
1990	298.5	5.4	0.5	4.4	(s)	4.9	128.5	2.3	7.7	0.0	0.0	(s)	2.5	449.8
1995	305.9	8.4	0.8	4.6	0.0	5.4	139.1	3.0	8.6	0.0	0.0	0.2	28.8	499.5
2000	333.3	10.1	1.4	6.5	(s)	7.9	135.2	2.3	8.8	0.0	0.0	2.5	26.9	527.0
2005	353.0	26.3	1.4	6.3	0.5	8.2	133.9	2.2	9.3	0.0	0.0	5.4	26.7	564.9
2006	345.1	25.1	0.9	4.3	0.1	5.3	137.6	1.6	8.9	0.0	0.0	7.0	27.0	557.6
2007	339.2	35.1	2.3	1.9	0.4	4.7	137.4	1.9	17.2	0.0	0.0	9.0	23.4	567.9
2008	332.2	25.2	0.9	1.6	0.2	2.6	135.8	2.1	17.7	0.0	0.0	14.9	26.5	557.1
2009	305.3	23.9	0.7	0.0	(s)	0.7	129.6	2.3	20.9	0.0	0.0	17.2	26.6	526.6
2010	289.7	36.4	0.4	0.0	0.0	0.4	140.9	2.4	24.3	0.0	0.0	16.3	24.2	534.7
2011	290.2	28.5	0.3	0.0	0.0	0.3	125.1	2.1	21.4	0.0	0.0	22.9	26.3	516.9
2012	236.4	58.3	0.3	0.0	0.0	0.3	125.2	1.7	24.2	0.0	0.0	27.8	22.2	496.2
2013	243.5	50.9	0.4	0.0	0.0	0.4	111.9	1.4	20.0	0.0	(s)	28.1	27.0	483.3
2014	289.7	31.7	0.7	0.0	0.0	0.7	132.9	1.8	22.1	0.0	(s)	33.0	23.0	534.9
2015	253.9	55.9	0.3	0.0	0.0	0.3	125.9	2.5	22.5	0.0	(s)	33.3	27.0	521.3
2016	241.5	68.4	0.3	0.0	0.0	0.3	145.0	3.7	22.8	0.0	(s)	33.8	28.9	544.4
2017	235.5	51.6	0.3	0.0	0.0	0.3	145.4	3.8	22.7	0.0	2.0	37.9	24.6	523.8
2018	241.8	67.6	0.4	0.0	0.0	0.4	152.7	3.3	17.8	0.0	3.6	36.5	13.1	536.7
2019	186.6	94.1	0.6	0.0	0.0	0.6	147.3	3.3	9.3	0.0	4.3	37.3	26.9	509.6
2020	149.0	93.0	0.3	0.0	0.0	0.3	153.3	3.2	8.8	0.0	5.6	40.3	9.7	463.1
2021	164.3	101.6	1.2	0.0	0.0	1.2	147.3	2.1	8.5	0.0	6.5	41.8	7.4	480.8
2022	168.1	70.8	0.6	0.0	0.0	0.6	R 153.5	3.0	8.9	0.0	6.5	51.4	15.5	R 478.3
2023	132.0	108.4	0.9	0.0	0.0	0.9	124.6	2.4	8.0	0.0	7.1	49.1	20.3	452.8

^a Includes supplemental gaseous fuels that are commingled with natural gas.
^b Excludes biodiesel. 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. Beginning in 2006, includes small amount of other biomass liquids that are biodiesel. 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>.
 Data source: U.S. Energy Information Administration, State Energy Data System. See technical notes. <https://www.eia.gov/state/seds/>