Table CT6. Industrial Sector Energy Consumption Estimates, Selected Years, 1960-2021, Michigan

			Petroleum						Hvdro-	Biomass							
	Coal	Natural Gas ^a	Distillate Fuel Oil	HGL ^b	Motor Gasoline ^c	Residual Fuel Oil	Other ^d	Total	electric Power ^{e,f}		Losses		Solar ^{f,i}	Electricity ^j		Electrical System	
Year	Thousand Short Tons	Billion Cubic Feet	Thousand Barrels						Million kWh	Wood and Waste f,g Geoproducts h Geoproducts h Geoproducts h		Million kWh		End Use f,k	Energy Losses	Total f,k	
1960	13,011	117	7,091 7,518	524	3,151	9,574 6,660	10,949	31,288	212				NA	12,482			
1965 1970	15,193 13,061	192 262	7,518 8,502	524 923 854	2,694 2,758	6,660 4,557	13,665 13,367	31,460 30,038	146 123				NA NA				
1975	9.885	262 300 249	8.749	1.239	1,889 967	4,557 3,343	13,367 12,239 13,129	30,038 27,460 24,750	121				NA	28.866			
1980 1985	8,652 6,645	249 190	4,804 4,408	2,637 8,725	967 1,192	3,213 2,213	13,129 8 405	24,750	117 117				NA NA				
1990	4,719	290	3.957	6,926	976	1.416	10,635	23,911	23				0	35,062			
1995 2000	4,383 4,004	254 247	3,457 4,055	4,826 3,006	1,310 1,060	402 622	8,405 10,635 11,392 12,207 10,388 10,194	21,387 20,951	27 27				0				
2001	3,793 2,781	233 250	3,494 2,767	2.434	1,835 1,931	352 344	10,388	18.504	26				Ö	34,174			
2002 2003	2,781 2,840	250 222	2,767 3,229	3,457 2,984	1,931 2,018	344 713	10,194 11,077	18,693 20,020	29 75				0	33,537 39,813			
2004	3,012	210	3.651	5,110	2.308	687	11 404	23,160	30				Ö	34,867			
2005 2006	3,017	222 199 156	3,475	6,279 4,407	2,237 2,378	909	10,913	23,813 20,405	29			==	0	34,745 34,093			
2007	3,132 2,922	156	3,020 3,154	4,112	2,218	736 967	10,913 9,864 10,317	20,768	32 26	==	==	==	Õ	33,879	==	==	==
2008 2009	3,204 1,850	149 137	3,415 3,091	1,003 988	1,883 1,442	982 342		15,677 14,234	26 25				0 (s)	32,505 27,391			
2010	2.621	152	3,224	1,068	1.254	154	7,434	R 13,133	28		==	==	(s)	30,841			
2011 2012	2,636 2,291	158 167 179	3,208	1,313 R 1,379	1,206	218 188	6,823	H 12,767	29				R (s)	31,624 31,836			
2013	2,588	179	2,825 3,322	R 1.601	1,316 1,385	138	8,371 7,434 6,823 7,274 8,435	R 13,133 R 12,767 R 12,983 R 14,879	26 29	==	==	==	(5)	31,322		==	
2014 2015	2,474 2,391	188 178	3,173 3,803	R 1,551 R 1,561	959 1,559	138 73 72	9,055 9,332	n 14 812	29 30				1	32,446 30,677			
2016	1,516	178	3,912	R 1.561	1.598	26 18	_ 9,893	R 16,327 R 16,990	26	==	==	==	i	30,934			
2017 2018	1,974 2,039	176 182	3,500 3,756	R 1,317 R 1,157	1,612 1,643	18	9,893 R 9,916 R 9,166	R 16,363 R 15,748	29 10				1	30,591 30,806			
2019	1,918	179	3,737	R 1.410	1,626	24	H 9.691	H 16,488	10				3	29,886		==	
2020 2021	1,226 1,753	159 164	3,326 3,704	R 1,385 1,391	1,632 1,568	26 24 26 24	R 9,735 9,878	R 16,105 16,566	9 11				3				
2021 1,753 164 3,704 1,391 1,568 24 9,878 16,566 11 4 27,081 Trillion Btu																	
1960	332.0	121.3	41.3	2.0	16.5	60.2	66.3	186.3	2.3	14.8	NA	NA	NA	42.6	699.3	105.3	804.6
1965 1970	385.6 320.9	195.1 265.7	43.8 49.5	2.0 3.5 3.1	14.2 14.5	41.9 28.7	80.4 80.2	183.7 176.0	1.5 1.3	18.8 19.5	NA NA	NA NA	NA NA	66.0 85.9	850.7 869.3	157.6 207.7	1,008.3 1,077.0
1975	246.7	307.7	51.0	4.4 9.3	9.9 5.1	21.0	74.1 78.2	160.4 140.8	1.3 1.2	19.7 47.2	NA	NA	NA	98.5	834.3	236.2 251.3	1,070.5 1,018.2
1980 1985	219.4 169.9	253.7 194.2	28.0 25.7	9.3 29.8	5.1 6.3	20.2 13.9	78.2 51.1	140.8 126.8	1.2 1.2	47.2 55.3	NA 0.0	NA NA	NA NA	104.6 115.0	766.9 661.7	251.3 263.4	1,018.2 925.1
1990	117.9	302.6	23.1	23.9	5.1	8.9	65.2	126.2	0.2	36.5	0.0	0.0	0.0	119.6	696.5	302.3	998.8
1995 2000	109.2 104.8	264.4 256.2	20.1 23.6	16.7	6.8 5.5	2.5 3.9	70.9 76.1	117.1 119.4	0.3 0.3	44.7 50.4	0.0	0.0 0.0	0.0	115.7 127.2	645.6 654.8	251.1 305.0	896.7 959.9
2001	99.0	240.5	20.3	10.3 8.3 11.9	9.5	2.2	65.2 63.7	105.7	0.3 0.3	35.5 25.7	0.0	0.0	0.0 0.0 0.0	116.6	596.4 571.9	277.9	874.3
2002 2003	72.8 74.6	254.7 229.0	16.1 18.8	11.9 10.3	10.0 10.5	2.2 4.5	63.7 69.2	103.9 113.3	0.3 0.8	25.7 35.4	0.0 2.6	0.0	0.0	114.4 135.8	571.9 591.5	272.5 320.6	844.4 912.1
2004	78.2	224.2	21.2	17.5	12.0	4.3	71.6	126.7	0.3	37.3	2.9	0.0	0.0	119.0	588.5	283.7	872.2
2005 2006	77.5 80.0	225.4 202.4	20.2	21.6	11.6	5.7 4.6	68.9	128.0 111.6	0.3	36.3	2.7	0.0 0.0	0.0	118.5 116.3	588.7 549.2	283.1 276.8	871.9
2007	75.6	159.7	17.5 18.2	15.1 13.9	12.3 11.4	6.1	62.0 64.0	113.7	0.3 0.3 0.3	34.1 34.7	4.5 10.5	0.0	0.0 0.0	115.6	510.1	266.9	826.0 776.9
2008 2009	82.7	152.2 140.0	19.7 17.9	3.4	9.6	6.2	51.8	90.7 82.8	0.3 0.2	35.2 32.5	12.7	0.0 0.0	0.0	110.9	484.6 407.8	249.2 202.2	733.9 610.1
2010	47.1 67.1	154.1	17.9	3.3 4.1 5.0	7.3 6.4	2.1 1.0	52.1 46.3	76.4	0.2	32.5 40.0	11.8 15.1	0.0	(s) (s)	105.2	407.8 458.3	231.1	689.4
2011	66.7	160.4	18.5	5.0	6.1	1.4	42.3	73.4 74.5	0.3	51.2	15.0	0.0	(s)	107.9	474.8	237.0	711.8
2012 2013	59.8 67.6	170.0 182.9	16.3 19.1	5.3 R 6.1	6.7 7.0	1.2 0.9	45.1 51.4	84.6	0.2 0.3	51.2 52.7	14.4 14.9	0.0	(s)	108.6 106.9	478.8 R 509.8	232.2 229.0	711.0 738.9
2014	62.7	191.3	18.3	6.0	4.9	0.5	55.3	R 84.8	0.3	52.3	15.0	0.0	(s)	110.7	517.2	235.0	738.9 R 752.1
2015 2016	61.1 38.7	184.3 186.1	21.9 22.5	R 6.0 R 6.0	7.9 8.1	0.5 0.2	57.3 61.4	93.6 R 98.2	0.3 0.2	50.1 49.3	15.0 15.2	0.0 0.0	(s)	104.7 105.5	509.0 R 493.3	208.9 R 209.9	717.9 703.2
2017	53.5	184.3	20.2 21.6	R 5.1 R 4.4	8.1	0.1	61.7	R 95.2 R 91.8	0.3	44.4	18.2	0.0	(s)	104.4	B = 00 1	R 210.5 R 209.8	703.2 R 710.6
2018 2019	53.7 50.0	191.0 189.5	21.6 21.5	H 4.4 R 5.4	8.3 8.2	0.2 0.2	57.3 60.3	H 91.8 H 95.6	0.1 0.1	45.7 44.9	19.1 18.1	0.0	(s)	105.1 102.0	R 506.5 R 500.3	H 209.8 R 205.0	716.3 R 705.3
2020	31.5	168.2	19.1	R 5.4 R 5.3	8.2	0.2	R 60.7	R 93.6	0.1	42.9	16.3	0.0	(s)	105.1 102.0 87.5 92.4	R 440.1	R 179.4	R 705.3 R 619.5
2021	45.5	173.2	21.4	5.3	7.9	0.1	61.7	96.5	0.1	44.0	16.9	0.0	(s)	92.4	468.5	189.0	657.6

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.

Includes a small amount of wind energy consumed by industrial utility-scale facilities.

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. 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. http://www.eia.gov/state/seds/

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.

Includes a sphalt and road oil, kerosene, lubricants, petroleum coke, and the "other petroleum products" category. See Technical Notes, Section 4.

⁶ Conventional hydroelectric power. For 1960 through 1989, includes hydroelectric pumped-storage, which cannot be separately

identified.

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

9 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.

Solar thermal and photovoltaic energy. Excludes a small amount of solar thermal energy consumed as heat that is included in

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