

**Table ET2. Total end-use energy price and expenditure estimates, selected years, 1970-2022, Michigan**

Year	Primary energy										Electricity <sup>k</sup>	Total energy <sup>h,i,j</sup>	
	Coal	Natural gas <sup>a</sup>	Petroleum					Biomass	Total <sup>h,i,j</sup>				
			Distillate fuel oil <sup>b</sup>	HGL <sup>c</sup>	Jet fuel <sup>d</sup>	Motor gasoline <sup>e</sup>	Residual fuel oil			Other <sup>f</sup>			Wood and waste <sup>g,h</sup>
Prices in dollars per million Btu													
1970	0.57	0.80	1.10	1.91	0.74	2.71	0.56	2.10	2.09	1.01	1.35	5.55	1.71
1975	1.83	1.42	2.50	3.89	2.08	4.72	1.95	3.85	3.93	1.29	2.65	9.78	3.34
1980	2.05	3.05	6.78	6.85	6.38	10.09	3.30	8.74	8.91	2.16	5.47	15.40	6.57
1985	2.05	5.71	7.74	9.29	6.09	9.10	4.39	10.98	8.79	2.30	6.75	19.88	8.46
1990	1.80	4.35	7.44	10.78	5.65	8.78	3.10	9.88	8.51	1.84	6.10	20.85	8.08
1995	1.68	4.17	6.95	8.98	3.93	8.47	2.60	9.31	8.04	1.45	5.81	20.72	7.96
2000	1.64	4.52	9.95	12.00	6.51	11.90	3.64	10.46	11.18	1.68	7.69	20.89	9.74
2005	3.03	9.61	16.59	17.69	13.03	17.69	6.73	14.47	17.10	3.65	13.16	21.25	14.53
2006	3.26	10.92	18.74	19.67	14.94	19.99	7.78	20.31	19.56	3.74	15.11	23.90	16.66
2007	3.26	10.22	20.06	21.71	16.47	22.32	8.43	21.38	21.50	3.96	15.93	25.04	17.57
2008	4.05	10.99	26.41	25.63	22.76	25.57	12.06	27.32	25.61	4.78	18.06	26.24	19.53
2009	5.14	10.22	16.64	22.98	12.60	18.58	7.87	24.94	18.64	3.72	14.45	27.63	16.80
2010	5.23	10.08	21.18	R 23.13	16.23	22.04	9.78	21.66	R 21.55	3.85	R 15.91	29.05	R 18.33
2011	5.97	9.50	27.40	R 26.05	22.39	28.03	13.26	26.07	R 27.31	4.09	R 18.55	30.57	R 20.77
2012	5.84	8.73	28.04	R 22.65	22.99	28.62	14.63	25.92	R 27.71	3.87	R 18.74	32.29	R 21.35
2013	4.83	8.07	28.02	R 22.61	21.97	27.92	13.56	25.31	R 27.11	4.14	R 17.70	32.89	R 20.34
2014	4.57	8.53	27.22	R 26.61	20.70	26.69	12.73	24.11	R 26.28	4.53	R 17.30	32.38	R 19.87
2015	4.27	7.65	18.54	18.26	11.88	19.16	7.43	21.06	18.62	4.38	13.25	31.57	16.43
2016	3.61	6.91	15.77	16.46	9.72	17.04	4.60	R 17.34	16.28	3.66	11.91	32.44	15.57
2017	4.30	7.07	18.22	R 19.58	12.27	19.13	6.38	R 17.44	R 18.38	3.85	R 12.99	33.12	R 16.51
2018	4.66	6.96	21.96	R 20.80	15.64	21.21	8.00	R 21.42	R 20.92	4.05	R 14.17	33.46	R 17.48
2019	5.35	6.84	20.72	R 17.76	14.37	20.21	7.51	R 20.67	R 19.74	R 4.29	R 13.48	33.93	R 16.90
2020	4.90	6.89	16.80	R 15.83	9.10	16.59	5.51	R 18.06	R 16.32	R 3.30	R 11.62	35.85	R 16.01
2021	4.87	7.77	R 22.40	R 21.52	13.82	23.43	8.29	R 20.53	R 22.40	R 3.83	R 15.34	37.98	R 19.39
2022	7.19	9.85	34.48	24.13	25.27	30.85	14.32	27.02	30.53	5.34	20.18	38.76	23.41
Expenditures in million dollars													
1970	194.1	593.0	237.0	44.8	30.4	1,378.2	15.8	176.9	1,883.2	6.3	2,676.6	1,041.7	3,718.3
1975	467.5	1,174.9	593.3	109.7	65.8	2,686.4	42.2	273.1	3,770.4	7.9	5,420.6	2,139.6	7,560.3
1980	464.9	2,543.0	1,060.3	171.3	236.9	5,144.7	66.9	681.2	7,361.3	33.4	10,402.6	3,647.5	14,050.2
1985	359.8	3,933.4	1,143.6	465.9	223.6	4,466.4	40.8	597.7	6,938.0	39.1	11,302.9	4,993.3	16,296.2
1990	223.9	3,423.9	1,041.1	575.4	319.7	4,608.3	22.9	630.7	7,198.1	54.2	10,936.7	5,797.5	16,734.2
1995	193.7	3,498.7	1,092.3	479.3	196.3	4,875.1	4.9	650.9	7,298.9	57.0	11,048.3	6,636.2	17,684.5
2000	172.4	3,652.4	1,763.2	734.5	266.3	7,310.1	9.5	850.5	10,934.1	60.6	14,819.4	7,400.3	22,219.7
2005	245.8	7,136.4	2,890.1	1,523.0	253.5	10,984.2	46.0	968.2	16,665.0	145.3	24,192.6	7,934.7	32,127.3
2006	261.7	7,176.3	3,221.0	1,096.7	349.4	12,242.4	46.1	1,199.2	18,154.8	139.7	25,732.5	8,724.5	34,457.0
2007	260.0	6,564.7	3,373.4	1,307.5	492.3	13,317.1	64.4	1,305.1	19,859.9	152.7	26,837.3	9,251.2	36,088.5
2008	354.7	7,248.4	4,033.9	1,216.9	598.8	14,543.0	93.0	1,344.0	21,829.6	194.0	29,626.8	9,378.2	39,005.0
2009	274.6	6,355.1	2,437.6	1,029.3	305.0	10,376.1	23.2	1,208.6	15,379.9	113.6	22,123.1	9,158.8	31,281.9
2010	375.3	6,033.0	3,203.2	R 1,063.8	789.8	12,109.9	28.8	857.3	R 18,052.7	149.6	R 24,610.6	10,171.9	R 34,782.5
2011	422.3	5,983.8	4,169.1	R 1,174.1	1,116.9	15,027.2	53.3	912.2	R 22,452.9	172.9	R 29,031.9	10,846.5	R 39,878.4
2012	361.2	5,046.5	4,115.9	R 894.3	1,128.4	15,219.1	42.2	915.1	R 22,315.0	166.1	R 27,888.9	11,422.9	R 39,311.8
2013	334.9	5,540.9	4,580.2	R 1,151.9	1,090.1	15,407.8	32.2	1,070.7	R 23,332.9	184.9	R 29,393.6	11,520.6	R 40,914.2
2014	294.1	6,235.5	4,514.0	R 1,407.8	1,028.3	14,733.8	20.6	1,122.9	R 22,827.4	201.1	R 29,558.0	11,364.3	R 40,922.3
2015	265.9	5,116.2	3,178.7	763.4	659.9	10,794.2	10.9	1,024.3	16,431.5	R 212.4	R 22,026.0	10,992.2	R 33,018.2
2016	140.8	4,475.0	2,684.1	734.7	551.8	9,774.1	14.0	R 896.8	R 14,655.4	168.6	R 19,439.7	11,512.6	R 30,952.3
2017	229.9	4,634.4	2,880.1	R 875.0	715.6	10,852.6	27.9	R 885.5	R 16,236.6	R 170.7	R 21,271.6	11,462.3	R 32,733.9
2018	250.1	4,947.7	3,929.2	R 1,081.6	891.0	12,060.9	40.9	R 996.5	R 19,000.0	R 199.2	R 24,397.0	11,921.5	R 36,318.5
2019	267.5	4,935.0	3,572.4	R 952.3	816.2	11,332.1	43.0	R 1,017.3	R 17,733.3	R 196.2	R 23,132.0	11,670.1	R 34,802.1
2020	154.1	4,480.1	2,612.7	R 774.7	279.0	7,952.8	22.6	R 886.4	R 12,528.1	R 127.5	R 17,289.8	11,816.1	R 29,106.0
2021	221.6	5,023.5	R 3,569.1	R 1,025.5	535.5	12,273.6	43.4	R 1,020.8	R 18,467.9	R 150.9	R 23,864.0	12,876.4	R 36,740.4
2022	338.5	6,997.5	5,611.4	1,170.4	1,104.6	15,897.1	76.8	1,367.7	25,228.1	218.4	32,782.4	13,250.0	46,032.4

<sup>a</sup> Includes supplemental gaseous fuels that are commingled with natural gas.

<sup>b</sup> Beginning in 2009, includes biodiesel blended into distillate fuel oil. Beginning in 2011, includes renewable diesel blended into distillate fuel oil. Beginning in 2021, includes biodiesel and renewable diesel product supplied.

<sup>c</sup> Hydrocarbon gas liquids, include natural gas liquids and refinery olefins.

<sup>d</sup> 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 expenditures time series between 2009 and 2010 because of consumption data source and methodology changes, see technical notes.

<sup>e</sup> Beginning in 1993, includes fuel ethanol blended into motor gasoline.

<sup>f</sup> Includes asphalt and road oil, aviation gasoline, kerosene, lubricants, petroleum coke, and the "other petroleum products" category. See Technical Notes, Section 4.

<sup>g</sup> Wood, wood-derived fuels, and biomass waste. Prior to 2001, includes non-biomass waste.

<sup>h</sup> There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of the use of wood and biomass waste beginning in 1989.

<sup>i</sup> There are no direct fuel costs for hydroelectric, geothermal, solar, or wind energy.

<sup>j</sup> For 1981 through 1992, includes fuel ethanol blended into motor gasoline that is not included in the motor gasoline column.

<sup>k</sup> Electricity sales to ultimate customers reported by electric utilities and, beginning in 1996, other energy service providers.

Where shown, R = Revised data and (s) = Value less than 0.05 million dollars.

Where shown, — = No consumption, including cases where adjustments were made. See explanation of adjustments in Section 7 of the Technical Notes.

Notes: Price estimates are weighted averages of price estimates and expenditure estimates are the sum of expenditure estimates for the residential, commercial, industrial, and transportation sectors. Expenditure totals may not equal sum of components due to independent rounding.

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/>