

Table ET1. Primary energy, electricity, and total energy price and expenditure estimates, selected years, 1970-2023, Minnesota

Year	Primary energy												Nuclear fuel	Biomass Wood and waste g,h	Total h,i,j,k	Electric power sector i,k,l	Electricity m	Total energy h,i,j
	Coal			Natural gas a	Petroleum						Total							
	Coking coal	Steam coal	Total		Distillate fuel oil b	HGL c	Jet fuel d	Motor gasoline e	Residual fuel oil	Other f								
	Prices in dollars per million Btu																	
1970	0.53	0.42	0.43	0.66	1.08	1.80	0.75	2.97	0.59	1.38	2.02	—	0.98	1.28	0.34	6.10	1.87	
1975	1.80	0.68	0.83	1.17	2.51	3.74	2.09	4.63	1.80	2.97	3.59	0.24	1.32	2.13	0.53	8.64	3.18	
1980	—	1.11	1.11	2.85	6.72	5.98	6.47	9.55	3.52	6.01	7.95	0.44	1.98	4.42	0.97	13.26	6.90	
1985	—	1.51	1.51	5.13	7.57	8.51	5.93	9.73	4.05	7.13	8.49	0.50	2.17	5.31	1.32	15.81	8.39	
1990	—	1.31	1.31	3.87	7.94	9.24	5.68	9.56	2.50	5.60	8.40	0.48	1.27	4.56	1.12	15.68	8.06	
1995	—	1.21	1.21	3.73	7.00	8.05	4.00	9.48	2.41	5.65	7.85	0.48	1.22	4.43	1.25	16.40	7.75	
2000	—	1.16	1.16	5.86	9.98	11.29	6.53	12.30	3.84	6.44	10.39	0.45	1.42	6.23	1.87	17.26	9.88	
2005	—	1.18	1.18	9.93	16.49	16.91	13.02	17.59	6.39	7.63	15.70	0.46	2.75	9.48	2.30	19.43	14.45	
2006	—	1.28	1.28	9.86	18.95	18.76	14.70	20.23	7.96	11.46	18.39	0.46	2.77	10.58	2.47	20.51	16.08	
2007	—	1.55	1.55	9.31	20.83	20.88	16.16	22.54	8.06	13.47	20.45	0.51	2.51	11.34	2.68	21.85	17.12	
2008	—	1.73	1.73	9.99	26.66	24.74	22.79	25.55	10.50	15.47	24.47	0.48	2.96	12.95	2.65	22.89	19.06	
2009	—	1.73	1.73	7.30	17.29	19.95	12.70	19.17	7.53	19.82	18.16	0.71	2.59	9.65	2.21	23.91	15.37	
2010	—	1.82	1.82	7.00	21.10	20.47	16.39	22.99	8.60	R 21.08	R 21.62	0.84	3.10	R 10.89	2.42	24.72	R 17.05	
2011	—	2.01	2.01	7.01	27.39	22.63	22.76	29.32	13.74	R 24.18	R 27.49	0.90	3.48	R 13.20	2.46	25.43	R 19.85	
2012	—	2.09	2.09	5.56	R 28.10	18.20	23.15	29.43	12.62	R 25.48	R 27.75	0.91	3.26	R 13.33	2.32	26.06	R 20.08	
2013	—	2.12	2.12	6.26	28.00	18.55	22.48	28.89	10.29	R 24.57	R 27.15	0.97	3.55	R 13.34	2.65	27.69	R 19.75	
2014	—	2.05	2.05	7.88	R 27.08	23.32	20.59	27.25	10.39	R 25.72	R 26.28	0.90	R 3.69	R 12.97	2.51	28.04	R 19.62	
2015	—	1.97	1.97	6.17	18.78	14.20	11.76	19.83	5.14	R 22.44	R 18.69	0.85	3.29	R 9.85	2.33	28.08	R 16.15	
2016	—	2.11	2.11	5.39	15.84	12.30	9.43	17.29	3.59	R 19.34	R 16.06	0.81	R 3.01	R 8.59	2.22	29.42	R 14.87	
2017	—	2.19	2.19	R 5.95	R 18.37	16.24	11.84	19.76	9.88	24.25	18.60	0.79	R 2.92	9.75	2.24	30.28	16.26	
2018	—	2.23	2.23	6.09	R 21.81	17.06	15.50	21.92	11.21	25.78	21.14	0.80	R 2.92	R 10.70	2.15	30.55	17.42	
2019	—	2.07	2.07	R 5.49	R 20.91	14.66	14.49	20.73	11.42	R 25.71	19.96	0.81	R 3.63	R 10.37	2.26	30.43	16.61	
2020	—	2.00	2.00	5.21	R 16.99	13.32	9.10	16.98	8.45	R 22.14	R 16.55	0.81	R 2.57	R 8.66	1.80	31.15	15.29	
2021	—	2.19	2.19	R 6.58	R 22.17	20.57	14.48	23.77	12.64	R 27.27	R 22.59	0.77	R 3.06	11.61	2.47	32.65	R 18.75	
2022	—	2.38	2.38	R 9.59	33.96	23.03	26.43	31.63	20.19	R 35.50	R 31.39	0.77	R 4.25	16.14	3.39	35.46	23.81	
2023	—	2.46	2.46	8.04	29.16	19.18	21.03	28.58	18.13	32.22	27.57	0.77	4.10	14.71	3.53	35.99	22.18	
	Expenditures in million dollars																	
1970	8.6	68.2	76.9	220.6	140.5	60.7	14.7	688.9	14.9	67.2	986.8	—	3.8	1,288.9	-66.2	427.5	1,650.2	
1975	45.4	113.9	159.3	381.4	355.7	129.1	66.5	1,172.9	38.4	137.2	1,899.9	25.5	5.7	2,474.3	-146.6	769.9	3,097.5	
1980	—	269.7	269.7	785.0	837.2	167.4	188.3	2,319.4	56.3	209.9	3,778.4	48.6	14.3	4,920.0	-335.3	1,481.2	6,065.9	
1985	—	340.9	340.9	1,283.0	876.8	164.4	261.4	2,314.7	15.8	309.2	3,942.3	61.4	18.8	5,754.6	-440.3	2,062.8	7,377.1	
1990	—	427.9	427.9	1,066.5	905.7	199.1	164.0	2,399.4	11.9	301.2	3,981.4	61.2	33.3	5,639.1	-505.9	2,491.4	7,624.7	
1995	—	407.8	407.8	1,241.4	937.6	284.7	226.1	2,679.9	5.8	320.5	4,454.6	66.2	47.3	6,399.2	-622.5	2,983.1	8,759.8	
2000	—	434.1	434.1	1,996.7	1,442.8	408.4	492.2	3,909.6	16.7	423.8	6,693.4	61.2	52.9	9,726.0	-979.5	3,477.2	12,223.7	
2005	—	446.4	446.4	3,417.4	2,536.2	685.3	934.5	5,910.0	67.6	486.4	10,620.0	62.2	104.6	15,222.7	-1,297.8	4,334.2	18,259.1	
2006	—	476.3	476.3	3,263.3	2,862.3	706.7	981.5	6,759.9	41.8	681.7	12,034.0	63.4	102.4	16,602.1	-1,386.1	4,624.6	19,840.6	
2007	—	568.0	568.0	3,424.0	3,293.1	786.3	1,033.3	7,491.6	66.7	759.0	13,430.0	69.7	114.4	18,237.8	-1,523.4	5,035.1	21,749.6	
2008	—	622.7	622.7	4,057.1	4,092.7	876.2	4,092.7	8,207.4	133.1	719.3	15,351.9	64.8	136.7	20,780.6	-1,437.9	5,313.8	24,656.6	
2009	—	567.1	567.1	2,788.5	R 2,309.1	755.0	662.3	5,975.0	31.9	754.8	R 10,488.0	92.1	117.8	R 14,395.9	-1,126.3	5,165.5	R 18,435.1	
2010	—	573.0	573.0	2,797.8	R 3,070.4	631.6	777.8	5,172.8	31.1	R 813.7	R 12,497.4	118.1	170.8	R 16,510.4	-1,253.6	5,653.0	R 20,909.9	
2011	—	635.5	635.5	2,791.7	R 4,171.7	687.7	1,048.8	8,720.0	44.5	R 867.1	R 15,539.8	112.4	180.2	R 19,572.5	-1,210.4	5,876.3	R 24,238.4	
2012	—	538.1	538.1	2,252.3	R 4,304.2	510.8	1,043.9	9,044.0	10.1	R 912.7	R 15,825.7	114.2	172.0	R 19,128.7	-1,084.7	5,970.3	R 24,014.3	
2013	—	566.5	566.5	R 2,838.3	R 4,382.2	688.3	1,158.8	8,855.2	6.0	R 909.2	R 15,999.8	108.5	176.1	R 20,009.7	-1,205.6	6,379.2	R 25,183.3	
2014	—	642.6	642.6	R 3,645.9	R 4,327.6	1,000.5	991.9	8,357.0	4.3	R 914.8	R 15,596.1	119.4	R 210.1	R 20,540.6	-1,257.8	6,458.8	R 25,741.6	
2015	—	535.3	535.3	R 2,619.3	R 2,767.2	483.8	594.5	6,252.2	2.9	R 843.1	R 10,943.6	106.4	R 177.6	R 14,671.4	-1,130.0	6,257.5	R 19,798.9	
2016	—	551.5	551.5	R 2,376.0	R 2,526.6	424.2	492.0	5,593.1	2.7	R 719.6	R 9,758.2	117.0	R 164.4	R 13,220.9	-1,126.6	6,549.9	R 18,644.1	
2017	—	565.3	565.3	R 2,605.8	R 2,939.9	657.0	637.6	6,339.8	1.1	549.2	R 11,124.7	114.4	R 157.0	R 14,794.8	-1,074.6	6,794.7	R 20,514.9	
2018	—	582.3	582.3	R 2,950.3	R 3,745.2	774.1	R 809.5	6,876.2	0.8	673.9	R 12,879.7	121.9	R 151.0	R 16,839.1	-1,065.0	7,018.7	R 22,792.9	
2019	—	425.2	425.2	R 2,847.3	R 3,709.6	747.9	R 789.2	6,467.4	3.0	R 715.1	R 12,432.3	119.0	R 159.0	R 16,233.5	-1,051.5	6,812.6	R 21,994.6	
2020	—	325.5	325.5	R 2,432.4	R 2,560.5	622.8	R 238.9	4,598.2	1.0	R 658.2	R 8,679.6	123.5	R 99.7	R 11,743.7	-747.1	6,667.6	R 17,664.2	
2021	—	392.2	392.2	R 3,224.8	R 3,552.2	909.4	R 530.6	6,824.4	1.9	R 681.9	R 12,500.4	114.1	R 121.5	R 16,477.1	-1,067.0	7,265.5	R 22,675.5	
2022	—	438.8	438.8	R 4,771.4	R 5,500.7	1,054.1	R 1,098.9	9,087.6	2.9	R 919.1	R 17,663.4	118.2	R 171.4	R 23,518.2	-1,421.5	7,896.1	R 29,992.8	
2023	—	367.2	367.2	4,048.5	4,629.0	784.6	1,004.9	8,270.2	2.1	779.6	15,470.5	96.4	150.3	20,555.4	-1,397.7	7,959.5	27,117.2	

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. Beginning in 2021, includes biodiesel and renewable diesel 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 expenditures time series between 2009 and 2010 because of consumption 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 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.
h 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.

i There are no direct fuel costs for hydroelectric, geothermal, solar, or wind energy.
j For 1981 through 1992, includes fuel ethanol blended into motor gasoline that is not included in the motor gasoline column.
k Electricity imports are included in total primary energy and electric power sector but are not shown separately.
l Expenditures for fuels purchased for electric power generation, included in the expenditure columns for the primary energy sources, are shown as negative expenditures because they need to be removed from total energy expenditures, to avoid double counting.
m 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.
n Where shown, — = No consumption, including cases where adjustments were made. See explanation of adjustments in Section 7 of the technical notes.
o Note: Expenditure totals may not equal sum of components due to independent rounding.
p Web page: All data are available at <https://www.eia.gov/state/seds/seds-data-complete.php>.
q Data source: U.S. Energy Information Administration, State Energy Data System. See technical notes. <https://www.eia.gov/state/seds/>

Table ET2. Total end-use energy price and expenditure estimates, selected years, 1970-2023, Minnesota

Year	Primary energy											Electricity ^k	Total energy ^{h,i,j}	
	Coal	Natural gas ^a	Petroleum						Total	Biomass	Total ^{h,i,j}			
			Distillate fuel oil ^b	HGL ^c	Jet fuel ^d	Motor gasoline ^e	Residual fuel oil	Other ^f						Wood and waste ^{g,h}
1970	0.62	0.74	1.08	1.80	0.75	2.97	0.56	1.40	2.04	1.00	1.50	6.10	1.87	
1975	1.35	1.21	2.51	3.74	2.09	4.63	1.75	2.99	3.62	1.32	2.63	8.64	3.18	
1980	1.84	2.88	6.73	5.98	6.47	9.55	3.36	6.01	7.97	1.98	5.98	13.26	6.90	
1985	2.14	5.14	7.58	8.51	5.93	9.73	4.05	7.13	8.49	2.17	7.10	15.81	8.39	
1990	2.01	3.91	7.96	9.24	5.68	9.56	2.50	6.03	8.48	1.54	6.52	15.68	8.06	
1995	1.84	3.78	7.02	8.05	4.00	9.48	2.41	6.09	7.91	1.43	6.09	16.40	7.75	
2000	1.58	5.90	10.02	11.29	6.53	12.30	3.84	7.11	10.50	1.73	8.44	17.26	9.88	
2005	2.09	9.99	16.54	16.91	13.02	17.59	6.46	8.43	15.87	3.27	13.38	19.43	14.45	
2006	2.29	9.96	18.98	18.76	14.70	20.23	7.95	12.32	18.52	3.27	15.09	20.51	16.08	
2007	2.19	9.53	20.91	20.88	16.16	22.54	8.15	13.91	20.54	3.33	16.07	21.85	17.12	
2008	2.68	10.05	26.69	24.74	22.79	25.55	10.55	15.98	24.54	3.99	18.23	22.89	19.06	
2009	2.84	7.35	17.31	19.95	12.70	19.17	7.54	19.82	18.16	3.72	13.50	23.91	15.37	
2010	2.60	7.10	21.11	20.47	16.39	22.99	8.60	R 21.08	R 21.62	R 3.84	R 15.29	R 24.72	R 17.05	
2011	2.96	7.10	27.40	22.63	22.76	29.32	13.74	R 24.18	R 27.49	4.29	R 18.54	25.43	R 19.85	
2012	3.29	5.87	R 28.11	18.20	23.15	29.43	12.62	R 25.48	R 27.75	4.21	R 18.66	26.06	R 20.08	
2013	3.24	6.47	28.01	18.55	22.48	28.89	10.29	R 24.57	R 27.16	4.52	R 18.00	27.69	R 19.75	
2014	3.28	8.03	27.11	23.32	20.59	27.25	10.39	R 25.72	R 26.28	4.70	R 17.82	28.04	R 19.62	
2015	3.02	6.56	18.79	14.20	11.76	19.83	5.14	R 22.44	R 18.70	R 4.17	R 13.50	28.08	R 16.15	
2016	2.76	R 5.82	15.85	12.30	9.43	17.29	3.59	R 19.34	R 16.06	R 3.72	R 11.73	29.42	R 14.87	
2017	3.31	6.23	R 18.38	16.24	11.84	19.76	9.88	24.25	18.61	R 3.78	13.23	30.28	16.26	
2018	2.64	R 6.52	R 21.82	17.06	15.50	21.92	11.21	25.78	R 21.14	R 3.94	14.62	30.55	17.42	
2019	2.65	R 6.05	R 20.93	14.66	14.49	20.73	11.42	R 25.71	R 19.96	R 3.97	13.80	30.43	16.61	
2020	2.64	R 5.87	17.01	13.32	9.10	16.98	8.45	22.14	16.56	R 3.05	R 11.68	31.15	R 15.29	
2021	2.66	R 7.13	22.23	20.57	14.48	23.77	12.64	R 27.27	R 22.61	R 3.78	R 15.62	32.65	R 18.75	
2022	2.92	9.92	33.99	23.03	26.43	31.63	20.19	R 35.50	31.40	R 5.17	21.31	35.46	23.81	
2023	2.99	8.88	29.21	19.18	21.03	28.58	18.13	32.22	27.58	4.95	19.13	35.99	22.18	

Year	Expenditures in million dollars																										
	Coal	Natural gas ^a	Distillate fuel oil ^b	HGL ^c	Jet fuel ^d	Motor gasoline ^e	Residual fuel oil	Other ^f	Total	Biomass	Total ^{h,i,j}	Electricity ^k	Total energy ^{h,i,j}														
														Prices in dollars per million Btu													
														1970	33.8	205.3	137.8	60.7	14.7	688.9	11.0	66.9	979.9	3.7	1,222.7	427.5	1,650.2
1975	74.4	367.2	346.8	129.1	66.5	1,172.9	28.0	137.1	1,880.4	5.6	2,327.6	769.9	3,097.5														
1980	38.7	769.1	831.5	167.4	188.3	2,319.4	46.1	209.9	3,762.7	14.2	4,584.7	1,481.2	6,065.9														
1985	54.4	1,278.3	875.1	164.4	261.4	2,314.7	15.8	309.2	3,940.6	18.8	5,314.3	2,062.8	7,377.1														
1990	54.2	1,056.1	902.9	199.1	164.0	2,399.4	11.9	297.8	3,975.2	28.5	5,133.2	2,491.4	7,624.7														
1995	59.1	1,226.6	934.4	284.7	226.1	2,679.9	5.8	317.4	4,448.2	42.9	5,776.7	2,983.1	8,759.8														
2000	63.9	1,951.5	1,433.4	408.4	492.2	3,909.6	16.7	421.6	6,681.8	49.3	8,746.5	3,477.2	12,223.7														
2005	54.5	3,175.9	2,521.8	685.3	934.5	5,910.0	65.1	483.7	10,600.5	94.0	13,924.9	4,334.2	18,259.1														
2006	58.9	3,046.4	2,850.6	706.7	981.5	6,759.9	40.7	679.6	12,019.1	91.7	15,216.0	4,624.6	19,840.6														
2007	59.2	3,172.3	3,256.6	786.3	1,033.3	7,491.6	63.9	757.0	13,388.6	94.3	16,714.5	5,035.1	21,749.6														
2008	72.8	3,827.2	4,073.2	876.2	1,323.1	8,207.4	132.0	717.5	15,329.5	113.2	19,342.8	5,313.8	24,656.6														
2009	66.4	2,633.2	R 2,299.5	755.0	662.3	5,975.0	31.7	754.8	R 10,478.3	91.7	R 13,269.6	5,165.5	R 18,435.1														
2010	66.9	2,580.7	R 3,064.2	631.6	777.8	7,172.8	31.1	R 813.7	R 12,491.2	118.1	R 15,256.9	5,653.0	R 20,909.9														
2011	75.2	2,624.1	R 4,164.7	687.7	1,048.8	8,720.0	44.5	R 867.1	R 15,532.8	129.9	R 18,362.0	5,876.3	R 24,238.4														
2012	70.6	2,035.8	R 4,296.1	510.8	1,043.9	9,044.0	10.1	R 912.7	R 15,817.6	120.1	R 18,044.0	5,970.3	R 24,014.3														
2013	78.3	R 2,601.1	R 4,373.1	688.3	1,158.8	8,855.2	6.0	R 909.2	R 15,990.8	133.9	R 18,804.1	6,379.2	R 25,183.3														
2014	76.8	R 3,461.3	R 4,312.7	1,000.5	991.9	8,357.0	4.3	R 914.8	R 15,581.2	R 163.4	R 19,282.8	6,458.8	R 25,741.6														
2015	53.2	R 2,417.4	R 2,762.8	483.8	594.5	6,252.2	2.9	R 843.1	R 10,939.2	R 131.6	R 13,541.4	6,257.5	R 19,798.9														
2016	54.6	R 2,167.1	R 2,522.7	424.2	492.0	5,593.1	2.7	R 719.6	R 9,754.3	R 118.2	R 12,094.3	6,549.9	R 18,644.1														
2017	73.1	R 2,409.4	R 2,935.6	657.0	637.6	6,339.8	1.1	549.2	R 11,120.5	R 117.2	R 13,720.1	6,794.7	R 20,514.9														
2018	52.1	R 2,716.1	R 3,738.0	774.1	R 809.5	6,876.2	0.8	673.9	R 12,872.5	R 133.4	R 15,774.2	7,018.7	R 22,792.9														
2019	49.0	R 2,572.1	R 3,701.2	747.9	R 789.2	6,467.4	3.0	R 715.1	R 12,423.8	R 137.0	R 15,182.0	6,812.6	R 21,994.6														
2020	36.3	R 2,192.1	R 2,557.6	622.8	R 238.9	4,598.2	1.0	R 658.2	R 8,676.6	R 91.5	R 10,996.6	6,667.6	R 17,664.2														
2021	39.2	R 2,771.3	R 3,533.5	909.4	R 530.6	6,824.4	1.9	R 681.9	R 12,481.7	R 117.8	R 15,410.0	7,265.5	R 22,675.5														
2022	47.9	R 4,237.6	R 5,486.2	1,054.1	R 1,098.9	9,087.6	2.9	R 919.1	R 17,648.9	R 162.2	R 22,096.7	7,896.1	R 29,992.8														
2023	50.8	3,512.6	4,610.9	784.6	1,004.9	8,270.2	2.1	779.6	15,452.4	141.9	19,157.7	7,959.5	27,117.2														

^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. Beginning in 2021, includes biodiesel and renewable diesel 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 expenditures time series between 2009 and 2010 because of consumption 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 Wood, wood-derived fuels, and biomass waste. Prior to 2001, includes non-biomass waste.

^h 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.

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

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

^k 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. <https://www.eia.gov/state/seds/>

Table ET3. Residential sector energy price and expenditure estimates, selected years, 1970-2023, Minnesota

Year	Primary energy								Electricity ^g	Total energy ^f
	Coal ^a	Natural gas ^b	Petroleum				Biomass	Total ^f		
			Distillate fuel oil ^c	HGL ^d	Kerosene	Total				
Prices in dollars per million Btu										
1970	1.55	1.09	1.26	1.99	1.52	1.54	0.61	1.28	7.30	2.14
1975	3.04	1.57	2.55	4.22	2.91	3.14	1.20	2.16	9.90	3.37
1980	4.32	3.24	7.20	7.34	8.02	7.25	3.06	4.47	16.06	6.87
1985	4.10	5.78	7.79	7.79	8.00	7.79	3.46	6.18	19.01	9.24
1990	3.46	4.61	7.75	8.35	8.35	7.96	3.56	5.36	19.94	9.13
1995	3.48	4.74	6.16	8.07	5.04	7.09	2.90	5.19	21.01	9.21
2000	3.53	7.03	8.89	11.03	9.31	10.20	4.41	7.64	22.03	11.57
2005	4.31	11.07	15.28	16.16	15.56	15.84	6.91	11.89	24.26	15.72
2006	5.15	11.48	17.48	17.99	19.78	17.83	7.96	12.58	25.48	16.87
2007	4.62	10.92	20.01	19.96	22.43	19.98	8.79	12.46	26.90	17.09
2008	—	11.03	23.72	23.93	23.58	23.86	10.83	13.23	28.53	17.84
2009	—	8.73	16.47	19.63	23.85	18.95	8.13	10.33	29.43	16.22
2010	—	8.67	19.20	20.66	25.38	20.31	9.60	10.67	31.04	17.40
2011	—	8.76	27.59	22.25	28.72	23.47	11.54	11.22	32.13	18.11
2012	—	7.84	27.50	19.11	30.13	20.95	12.85	10.06	33.27	18.30
2013	—	8.01	28.52	19.04	30.79	21.15	12.58	10.06	34.61	17.67
2014	—	9.58	27.57	25.76	33.14	26.10	12.27	12.22	35.21	19.01
2015	—	8.47	18.05	16.40	17.11	16.70	8.45	9.81	35.51	18.21
2016	—	7.74	15.62	13.85	13.64	14.17	7.22	8.78	37.14	18.13
2017	—	8.22	17.79	17.59	17.06	17.62	8.08	9.89	38.23	18.79
2018	—	8.31	19.40	18.04	27.90	18.22	8.94	10.04	38.52	18.45
2019	—	7.67	19.79	16.61	23.01	16.93	8.60	9.35	38.22	17.52
2020	—	7.65	19.03	14.99	14.95	15.37	7.11	9.03	38.59	18.26
2021	—	8.92	23.31	22.25	23.61	22.40	R 8.53	R 11.34	39.57	R 20.21
2022	—	11.53	31.61	25.07	40.88	26.02	R 13.20	R 14.10	41.76	R 22.03
2023	—	11.30	29.66	21.51	36.46	22.74	12.07	13.38	43.18	22.65
Expenditures in million dollars										
1970	10.5	111.5	52.9	50.3	10.3	113.5	1.1	236.6	225.0	461.6
1975	4.1	179.5	107.6	100.6	9.2	217.4	2.2	403.3	344.1	747.4
1980	2.7	333.8	249.5	84.8	5.2	339.5	7.6	683.5	643.8	1,327.4
1985	3.8	618.7	180.2	73.8	6.2	260.2	11.0	893.7	860.3	1,754.0
1990	2.2	495.3	169.0	96.6	1.4	267.0	12.7	777.1	1,010.6	1,787.7
1995	2.4	618.1	110.5	141.6	1.4	253.5	9.1	883.1	1,216.6	2,099.8
2000	(s)	925.5	118.6	236.5	1.7	356.9	11.1	1,293.5	1,400.1	2,693.5
2005	0.5	1,441.9	173.9	322.7	2.4	499.0	23.3	1,964.6	1,799.4	3,764.0
2006	0.7	1,367.2	156.4	338.2	2.0	496.6	23.8	1,888.3	1,905.1	3,793.4
2007	0.6	1,435.3	178.7	391.8	1.4	571.9	29.0	2,036.8	2,078.5	4,115.3
2008	—	1,574.8	234.5	487.8	1.1	723.4	40.0	2,338.3	2,176.5	4,514.8
2009	—	1,198.5	96.9	405.5	2.4	504.8	36.0	1,739.3	2,212.3	3,951.7
2010	—	1,077.4	129.6	401.4	2.9	533.9	45.6	1,656.9	2,379.1	4,036.0
2011	—	1,107.7	157.2	433.7	2.1	593.0	53.1	1,753.8	2,469.5	4,223.3
2012	—	871.7	130.1	323.6	0.9	454.6	49.5	1,375.8	2,504.5	3,880.3
2013	—	1,145.8	R 159.1	375.6	1.6	R 536.3	63.2	R 1,745.3	2,698.1	R 4,443.4
2014	—	1,450.3	R 142.7	604.8	2.3	R 749.8	62.4	R 2,262.5	2,737.9	R 5,000.4
2015	—	1,033.6	R 80.2	335.0	0.8	R 416.0	47.0	R 1,496.6	2,630.7	R 4,127.4
2016	—	942.0	R 71.4	280.9	1.0	R 353.2	33.6	R 1,328.8	2,762.8	R 4,091.6
2017	—	1,049.4	R 64.4	439.1	0.9	R 504.4	35.6	R 1,589.4	2,814.0	R 4,403.4
2018	—	1,228.8	R 77.2	506.7	1.5	R 585.4	R 53.4	R 1,867.6	3,001.4	R 4,868.9
2019	—	1,165.3	R 63.9	513.7	1.9	R 579.5	R 57.3	R 1,802.1	2,906.6	R 4,708.7
2020	—	1,046.2	R 54.9	421.8	1.2	R 477.9	R 30.9	R 1,555.0	3,020.2	R 4,575.2
2021	—	1,227.5	R 102.6	596.2	1.3	R 700.1	R 37.4	R 1,964.9	3,138.3	R 5,103.2
2022	—	R 1,827.2	R 155.1	745.8	2.2	R 903.1	R 74.8	R 2,805.1	3,336.4	R 6,141.5
2023	—	1,559.4	135.6	575.0	3.4	714.0	57.6	2,331.0	3,391.9	5,722.9

^a Beginning in 2008, consumption 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. Beginning in 2021, includes biodiesel product supplied.
^d Hydrocarbon gas liquids, assumed to be propane only.
^e Wood and wood-derived fuels.
^f There are no direct fuel costs for geothermal or solar energy.

^g Electricity sales to ultimate customers reported by electric utilities and, beginning in 1996, other energy service providers.
 Where shown, R = Revised data, — = No consumption, and (s) = Value less than 0.05 million dollars.
 Note: 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. <https://www.eia.gov/state/seds/>

Table ET4. Commercial sector energy price and expenditure estimates, selected years, 1970-2023, Minnesota

Year	Primary energy										Electricity ^j	Total energy ^{g,h,i}
	Coal	Natural gas ^a	Petroleum					Total ^e	Biomass	Total ^{g,h,i}		
			Distillate fuel oil ^b	HGL ^c	Kerosene	Motor gasoline ^d	Residual fuel oil					
Prices in dollars per million Btu												
1970	0.47	0.69	1.05	1.18	0.89	2.97	0.58	1.13	0.61	0.76	7.72	1.44
1975	0.87	1.16	2.34	2.52	2.54	4.63	1.97	2.59	1.20	1.38	10.38	2.55
1980	1.77	2.89	6.60	4.66	—	9.55	4.48	6.73	3.06	3.45	12.95	5.35
1985	2.07	5.18	6.27	8.28	8.00	9.73	4.10	6.56	3.46	5.36	17.53	7.80
1990	1.97	3.96	5.57	9.37	8.35	9.56	2.50	7.49	2.90	4.54	17.70	7.60
1995	1.81	3.93	4.40	7.81	5.04	9.48	2.41	5.41	2.22	3.94	18.35	7.56
2000	1.58	6.01	7.26	11.11	9.31	12.30	3.97	8.40	3.00	6.20	18.84	9.76
2005	2.08	10.04	14.28	16.40	15.56	17.59	6.69	13.56	5.25	10.25	19.30	13.92
2006	2.28	10.14	16.71	18.20	19.78	20.23	7.83	17.78	4.98	11.08	20.57	15.03
2007	2.18	9.94	18.91	19.66	22.43	22.54	8.63	20.07	5.77	10.95	21.92	15.53
2008	3.82	10.28	24.60	23.41	23.58	25.55	12.46	23.62	6.84	11.84	23.09	16.27
2009	4.44	7.73	14.57	18.76	23.85	19.17	8.03	16.06	5.29	8.66	23.20	14.46
2010	3.73	7.52	18.39	19.77	25.38	22.99	10.04	19.25	5.88	8.81	24.56	15.48
2011	4.08	7.39	24.92	23.12	28.72	29.32	15.76	25.01	7.06	9.45	25.28	15.93
2012	4.25	6.24	25.36	17.02	30.13	29.43	17.05	24.64	6.63	8.46	25.91	16.13
2013	4.11	6.71	24.74	18.13	30.79	28.89	16.82	23.93	6.78	8.64	27.61	16.02
2014	4.31	8.39	22.82	20.37	33.14	27.25	16.09	23.08	R 4.41	9.88	28.87	16.89
2015	4.01	7.04	13.54	11.40	17.11	19.83	10.36	15.83	R 3.87	8.25	27.66	R 16.08
2016	3.83	6.22	11.28	10.60	13.64	17.29	7.38	13.78	R 3.33	7.26	28.89	16.00
2017	4.78	6.60	14.02	14.53	17.06	19.76	9.88	R 15.93	R 3.35	7.71	30.71	R 16.70
2018	3.69	6.77	17.40	15.97	27.90	21.92	11.21	18.27	R 3.39	8.03	30.43	16.30
2019	3.78	6.31	16.01	12.18	23.01	20.73	11.42	16.22	R 3.61	7.31	30.32	15.59
2020	4.01	6.08	10.82	11.35	14.95	16.98	—	13.23	R 3.29	6.84	30.56	15.64
2021	3.75	7.39	17.44	18.56	23.61	23.77	12.64	19.86	R 4.01	8.91	32.88	17.82
2022	3.93	10.07	28.85	19.69	40.88	31.63	20.19	27.21	R 5.15	12.36	36.05	20.37
2023	3.35	9.77	21.96	15.29	36.46	28.58	18.13	22.05	5.62	11.16	36.30	20.43

Expenditures in million dollars												
1970	2.5	53.2	10.7	4.3	1.3	3.7	1.4	21.5	(s)	77.3	83.7	161.0
1975	2.7	104.2	24.1	8.7	1.7	8.6	2.8	46.0	(s)	152.9	171.6	324.6
1980	4.2	183.6	55.5	7.8	—	17.1	0.9	81.3	0.2	269.2	252.8	522.1
1985	6.8	400.2	104.0	11.4	1.1	17.1	5.8	139.3	0.3	546.8	446.9	993.6
1990	5.0	310.2	35.4	15.8	0.2	78.8	4.1	134.3	1.5	451.7	532.2	983.9
1995	8.4	360.7	22.0	19.9	0.7	2.5	1.7	46.8	1.5	417.4	651.7	1,069.1
2000	0.1	581.7	37.5	34.7	2.8	3.2	3.4	81.7	2.1	665.6	791.5	1,457.0
2005	2.7	974.5	83.2	44.6	1.3	4.8	12.8	146.8	4.4	1,128.4	1,447.9	2,576.3
2006	3.4	898.7	64.5	47.5	1.3	144.6	11.6	269.6	4.7	1,176.4	1,556.4	2,732.8
2007	2.4	925.5	79.5	43.8	1.3	109.1	4.8	238.6	5.6	1,172.1	1,684.2	2,856.3
2008	4.1	1,047.0	132.6	86.2	0.9	112.4	14.6	346.6	7.1	1,404.9	1,780.9	3,185.8
2009	4.3	765.9	88.0	56.9	0.4	63.6	9.6	218.5	5.7	994.4	1,766.0	2,760.4
2010	2.8	683.7	85.8	50.9	0.9	79.9	11.5	229.0	6.8	922.3	1,887.1	2,809.4
2011	2.6	703.9	150.6	69.0	0.5	93.6	13.1	326.9	7.7	1,041.1	1,929.9	2,971.0
2012	0.3	529.0	141.5	44.3	0.1	101.6	1.6	289.2	7.6	826.0	1,988.7	2,814.7
2013	0.5	726.7	R 174.0	65.9	0.4	90.3	0.5	R 331.0	8.4	R 1,066.7	2,170.8	R 3,237.5
2014	0.8	960.3	R 163.5	84.1	0.3	87.5	0.8	R 336.2	R 16.7	1,314.0	2,249.0	3,563.0
2015	0.6	679.9	R 82.4	43.2	0.1	152.8	(s)	R 278.5	R 14.4	R 973.4	2,207.0	R 3,180.5
2016	0.7	596.3	R 63.2	46.0	0.3	137.2	0.2	R 246.8	R 14.2	R 858.0	2,316.3	R 3,174.3
2017	0.7	678.3	R 87.4	74.0	0.1	99.7	0.3	R 261.5	R 15.0	R 955.6	2,438.8	R 3,394.4
2018	0.4	779.0	R 85.5	99.5	0.2	112.4	0.3	R 298.0	R 16.1	R 1,093.5	2,429.2	R 3,522.7
2019	0.3	752.0	R 71.6	67.4	0.2	107.2	0.1	R 246.5	R 16.3	R 1,015.1	2,369.1	R 3,384.2
2020	0.3	648.7	R 38.5	66.2	0.1	88.3	—	R 193.2	R 10.5	R 852.6	2,244.7	R 3,097.3
2021	0.4	796.1	R 93.6	106.1	0.2	124.8	0.3	R 325.0	R 12.7	R 1,134.2	2,478.4	R 3,612.6
2022	0.3	R 1,266.1	R 170.4	127.0	0.4	278.5	0.5	R 576.7	R 18.9	R 1,861.9	2,773.2	R 4,635.1
2023	0.1	1,108.6	120.7	77.4	0.6	151.4	0.4	350.4	15.1	1,474.2	2,800.8	4,275.1

^a Includes supplemental gaseous fuels that are commingled with natural gas.
^b Beginning in 2013, includes biodiesel blended into distillate fuel oil. Beginning in 2021, includes biodiesel product supplied.
^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 the expenditure series between 2014 and 2015 because of changes in consumption estimates from the source. See consumption technical notes, Section 4.
^e Includes small amounts of petroleum coke not shown separately.
^f Wood, wood-derived fuels, and biomass waste. Prior to 2001, includes non-biomass waste.
^g 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.
^h There are no direct fuel costs for hydroelectric, geothermal, solar, or wind energy.

ⁱ For 1981 through 1992, includes fuel ethanol blended into motor gasoline that is not included in the motor gasoline column.
^j 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: Expenditure 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.
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 ET5. Industrial sector energy price and expenditure estimates, selected years, 1970-2023, Minnesota

Year	Primary energy												Electricity ⁱ	Total energy ^{f,g,h}
	Coal			Natural gas ^a	Petroleum					Biomass	Total ^{f,g,h}			
	Coking coal	Steam coal	Total		Distillate fuel oil	HGL ^b	Motor gasoline ^c	Residual fuel oil	Other ^d	Total		Wood and waste ^{e,f}		
Prices in dollars per million Btu														
1970	0.53	0.47	0.49	0.42	0.83	1.24	2.97	0.55	0.96	1.18	1.43	0.79	4.17	1.12
1975	1.80	0.87	1.33	0.83	2.39	2.74	4.63	1.74	2.43	2.68	1.43	1.73	6.73	2.34
1980	—	1.77	1.77	2.51	5.66	5.08	9.55	2.97	4.45	5.27	1.39	3.59	11.22	5.09
1985	—	2.07	2.07	4.04	6.37	9.29	9.73	4.10	5.75	6.69	1.39	5.00	12.65	6.94
1990	—	1.97	1.97	2.96	6.51	10.43	9.56	2.50	4.27	5.86	0.99	3.96	12.14	6.14
1995	—	1.81	1.81	2.42	5.21	7.94	9.48	2.41	4.47	5.48	1.23	3.46	12.61	5.79
2000	—	1.58	1.58	4.36	7.94	11.81	12.30	3.97	5.51	7.24	1.43	4.74	13.40	7.03
2005	—	2.08	2.08	8.39	14.87	17.76	17.59	6.69	6.12	11.06	2.70	8.45	14.71	9.85
2006	—	2.28	2.28	7.96	17.37	19.69	20.23	7.83	9.62	13.98	2.62	9.43	15.50	10.82
2007	—	2.18	2.18	7.50	19.42	22.15	22.54	8.63	10.94	15.63	2.48	9.81	16.67	11.34
2008	—	2.63	2.63	8.84	26.47	26.48	25.55	12.46	12.01	19.40	2.80	11.41	17.22	12.67
2009	—	2.77	2.77	5.49	15.93	20.55	19.17	8.03	15.95	16.68	2.61	8.88	18.34	10.83
2010	—	2.57	2.57	5.52	19.73	20.20	22.99	10.04	R 18.22	R 19.30	2.64	R 9.35	18.43	R 11.22
2011	—	2.93	2.93	5.49	25.76	23.31	29.32	15.76	R 20.58	R 23.70	2.81	R 10.66	18.96	R 12.44
2012	—	3.29	3.29	4.20	26.50	16.72	29.43	17.05	R 21.97	R 24.05	2.68	R 10.14	19.16	R 12.06
2013	—	3.23	3.23	4.83	26.13	17.92	28.89	16.82	R 21.21	R 23.42	2.67	R 10.59	20.46	R 12.57
2014	—	3.28	3.28	6.36	24.93	20.33	27.25	16.09	R 22.21	R 23.42	3.26	R 11.13	19.71	R 12.80
2015	—	3.01	3.01	4.69	17.50	10.65	19.83	10.36	R 18.84	R 17.42	3.15	R 8.41	20.58	R 10.85
2016	—	2.75	2.75	4.05	13.54	9.79	17.29	7.38	R 15.51	R 14.19	3.08	R 6.92	21.61	R 9.77
2017	—	3.30	3.30	4.35	16.32	13.74	19.76	9.88	18.68	16.91	3.01	7.48	21.61	10.42
2018	—	2.64	2.64	4.59	18.68	15.16	21.92	11.21	20.80	19.08	2.76	8.51	22.05	11.31
2019	—	2.64	2.64	4.23	18.49	11.35	20.73	11.42	20.97	18.18	2.72	8.32	22.06	11.03
2020	—	2.64	2.64	3.80	14.77	10.51	16.98	8.45	18.32	15.43	2.23	7.58	22.49	10.53
2021	—	2.65	2.65	5.19	17.89	17.66	23.77	12.64	R 22.38	R 19.64	2.87	R 9.17	24.30	R 12.31
2022	—	2.91	2.91	R 5.00	28.05	18.73	31.63	20.19	R 29.78	R 27.76	R 3.11	R 13.14	27.12	R 15.99
2023	—	2.99	2.99	5.84	26.24	14.30	28.58	18.13	27.00	25.24	3.27	11.03	26.98	14.29
Expenditures in million dollars														
1970	8.6	12.2	20.8	40.6	37.5	5.6	56.3	9.4	32.9	141.9	2.5	205.7	118.8	324.5
1975	45.4	22.2	67.6	83.5	111.0	18.8	76.1	19.0	88.2	313.2	3.4	467.7	254.2	721.9
1980	—	31.9	31.9	251.7	188.2	73.5	67.1	22.0	126.6	477.3	6.5	767.4	584.6	1,351.9
1985	—	43.8	43.8	259.4	184.4	74.4	87.8	6.2	214.3	567.1	7.6	878.8	755.7	1,634.4
1990	—	47.0	47.0	250.7	207.8	84.3	56.1	7.9	184.2	540.3	14.3	852.8	948.6	1,801.4
1995	—	48.3	48.3	247.8	182.4	117.3	58.8	4.1	207.2	569.9	32.2	898.2	1,114.8	2,013.0
2000	—	63.8	63.8	444.0	224.2	136.8	63.7	8.3	292.7	725.7	36.2	1,269.7	1,285.6	2,555.3
2005	—	51.3	51.3	759.4	496.2	310.1	118.7	44.8	320.8	1,290.5	66.4	2,167.6	1,085.4	3,253.0
2006	—	54.8	54.8	780.3	533.5	313.5	128.8	18.7	484.9	1,479.5	63.1	2,377.8	1,161.3	3,539.1
2007	—	56.3	56.3	811.3	578.0	341.9	171.1	41.1	542.3	1,674.4	59.6	2,601.6	1,270.7	3,872.3
2008	—	68.7	68.7	1,205.1	919.7	283.4	120.5	91.5	486.0	1,901.1	66.1	3,241.0	1,354.7	4,595.6
2009	—	62.1	62.1	668.5	498.1	282.2	96.3	16.1	537.4	1,430.1	50.0	2,210.7	1,185.4	3,396.1
2010	—	64.0	64.0	819.3	765.5	177.3	151.7	11.9	R 645.2	R 1,751.6	65.7	R 2,700.7	1,385.1	R 4,085.8
2011	—	72.6	72.6	812.4	1,007.1	182.6	196.1	24.4	R 674.5	R 2,084.7	69.1	R 3,038.8	1,475.3	R 4,514.1
2012	—	70.3	70.3	635.0	1,039.8	141.4	198.5	4.4	R 723.3	R 2,107.4	63.0	R 2,875.7	1,475.6	R 4,351.3
2013	—	77.8	77.8	728.2	1,065.1	244.5	211.1	1.4	R 722.2	R 2,244.3	62.3	R 3,112.6	1,508.5	R 4,621.1
2014	—	76.0	76.0	1,050.0	1,036.2	309.0	167.3	0.9	R 723.5	R 2,236.9	84.3	R 3,447.2	1,469.6	R 4,916.8
2015	—	52.6	52.6	703.1	618.6	103.6	119.8	0.5	R 647.2	R 1,489.7	70.2	R 2,315.6	1,417.5	R 3,733.0
2016	—	53.9	53.9	627.2	465.0	95.2	114.1	0.2	R 526.3	R 1,200.8	70.3	R 1,952.3	1,468.4	R 3,420.7
2017	—	72.4	72.4	676.5	577.4	140.2	131.3	0.8	367.0	1,216.7	66.6	2,032.2	1,539.7	3,571.9
2018	—	51.7	51.7	702.9	735.3	166.5	147.4	0.5	482.9	1,532.5	63.9	2,351.1	1,585.6	3,936.7
2019	—	48.7	48.7	648.9	771.5	161.5	134.2	2.9	R 523.1	R 1,593.2	63.5	R 2,354.2	1,534.5	R 3,888.7
2020	—	36.1	36.1	492.1	588.3	133.2	111.1	1.0	500.2	1,333.8	50.1	R 1,912.1	1,400.8	3,312.8
2021	—	38.8	38.8	741.2	660.3	205.3	152.2	1.6	R 503.7	R 1,523.0	67.8	R 2,370.7	1,646.5	R 4,017.2
2022	—	47.7	47.7	R 1,137.1	1,046.0	171.6	212.2	2.4	R 692.8	R 2,125.0	R 68.6	R 3,378.3	1,784.1	R 5,162.4
2023	—	50.6	50.6	837.8	955.3	124.1	176.9	1.7	597.2	1,855.3	69.2	2,813.0	1,764.5	4,577.5

^a Includes supplemental gaseous fuels that are commingled with natural gas.
^b Hydrocarbon gas liquids, include natural gas liquids and refinery olefins.
^c Beginning in 1993, includes fuel ethanol blended into motor gasoline. There is a discontinuity in the expenditure series between 2014 and 2015 because of changes in consumption estimates from the source. See consumption 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 Wood, wood-derived fuels, and biomass waste. Prior to 2001, includes non-biomass waste.
^f There is a discontinuity in this time series between 1988 and 1989 due to the expanded coverage of the use of wood and biomass waste beginning in 1989.
^g There are no direct fuel costs for hydroelectric, geothermal, solar, or wind energy.

^h For 1981 through 1992, includes fuel ethanol blended into motor gasoline that is not included in the motor gasoline column.
ⁱ 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: · Expenditure 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.
 Web page: All data are available at <https://www.eia.gov/state/seeds/seeds-data-complete.php>.
 Data source: U.S. Energy Information Administration, State Energy Data System. See technical notes. <https://www.eia.gov/state/seeds/>

Table ET6. Transportation sector energy price and expenditure estimates, selected years, 1970-2023, Minnesota

Year	Primary energy										Electricity ^g	Total energy ^f	
	Coal	Natural gas ^a	Petroleum							Total ^f			
			Aviation gasoline	Distillate fuel oil ^b	HGL ^c	Jet fuel ^d	Lubricants	Motor gasoline ^e	Residual fuel oil				
Prices in dollars per million Btu													
1970	0.47	—	2.17	1.24	1.18	0.75	5.08	2.97	0.57	2.64	2.64	—	2.64
1975	0.87	—	3.45	2.67	2.52	2.09	7.48	4.63	1.70	4.13	4.13	—	4.13
1980	—	—	9.02	7.16	4.66	6.47	14.36	9.55	3.81	8.88	8.88	—	8.88
1985	—	—	9.99	8.68	10.10	5.93	18.18	9.73	3.91	9.16	9.17	—	9.17
1990	—	—	9.32	9.19	11.55	5.68	20.61	9.56	—	9.33	9.33	—	9.33
1995	—	1.79	8.36	8.23	11.32	4.00	21.75	9.48	—	8.65	8.65	—	8.65
2000	—	4.56	10.87	10.93	15.36	6.53	23.20	12.30	3.56	11.23	11.23	—	11.23
2005	—	5.69	18.56	17.36	20.79	13.02	35.22	17.59	5.11	17.02	17.02	18.19	17.02
2006	—	11.43	22.31	19.65	22.43	14.70	43.88	20.23	8.34	19.54	19.54	23.30	19.54
2007	—	12.53	23.70	21.44	24.62	16.16	47.16	22.54	7.14	21.62	21.62	24.23	21.62
2008	—	19.06	27.23	27.17	28.77	22.79	55.12	25.55	6.48	25.66	25.66	23.57	25.65
2009	—	18.17	20.32	18.03	23.92	12.70	56.07	19.17	5.97	18.46	18.46	22.65	18.46
2010	—	16.33	25.19	21.95	26.32	16.39	58.80	22.99	5.99	22.23	22.23	22.77	22.23
2011	—	10.44	31.64	28.17	29.59	22.76	69.54	29.32	8.18	28.56	28.56	24.11	28.56
2012	—	10.36	33.04	28.90	22.46	23.15	28.90	29.43	9.11	28.89	28.89	25.40	28.89
2013	—	R 10.18	32.71	28.95	23.78	22.48	69.42	28.89	8.75	28.38	28.38	28.69	28.38
2014	—	R 11.35	33.16	28.23	26.41	20.59	69.44	27.25	8.45	27.00	R 26.99	28.69	R 26.99
2015	—	R 11.42	24.86	19.59	15.87	11.76	67.28	19.83	4.55	19.15	19.15	27.84	19.15
2016	—	R 11.15	21.62	16.78	14.93	9.43	65.78	17.29	3.30	16.58	16.57	29.49	16.58
2017	—	R 11.08	24.13	19.28	19.19	11.84	67.25	19.76	—	19.01	19.00	28.02	19.00
2018	—	R 11.33	27.04	23.09	19.81	15.50	72.37	21.92	—	R 21.78	21.77	28.08	21.77
2019	—	R 11.36	25.57	21.94	16.28	14.49	74.92	20.73	—	R 20.61	20.60	27.82	20.60
2020	—	R 11.36	22.34	18.02	15.23	9.10	75.34	16.98	—	R 17.02	R 17.02	27.56	17.02
2021	—	R 11.36	28.86	23.84	24.12	14.48	81.25	23.77	—	R 23.27	R 23.26	30.43	R 23.26
2022	—	R 12.27	36.02	36.32	24.01	26.43	97.37	31.63	—	R 32.69	R 32.66	36.01	R 32.66
2023	—	13.47	32.62	30.52	19.17	21.03	105.48	28.58	—	28.52	28.50	36.20	28.50

Expenditures in million dollars													
1970	(s)	—	3.0	36.6	0.4	14.7	19.3	628.9	0.1	703.1	703.1	—	703.1
1975	(s)	—	3.7	104.1	0.9	66.5	34.1	1,088.1	6.2	1,303.7	1,303.8	—	1,303.8
1980	—	—	8.8	338.4	1.2	188.3	69.3	2,235.3	23.2	2,864.5	2,864.5	—	2,864.5
1985	—	—	7.8	406.5	4.8	261.4	79.9	2,209.8	3.8	2,973.9	2,995.1	—	2,995.1
1990	—	—	10.0	490.6	2.5	164.0	101.9	2,264.5	—	3,033.6	3,051.6	—	3,051.6
1995	—	(s)	5.4	619.4	5.8	226.1	102.6	2,618.6	—	3,577.9	3,578.0	—	3,578.0
2000	—	0.3	7.4	1,053.0	0.4	492.2	116.9	3,842.7	5.0	5,517.5	5,517.8	—	5,517.8
2005	—	0.1	9.6	1,768.5	7.9	934.5	149.7	5,786.5	7.5	8,664.2	8,664.3	1.5	8,665.8
2006	—	0.2	9.7	2,096.2	7.5	981.5	181.7	6,486.5	10.4	9,773.4	9,773.5	1.7	9,775.2
2007	—	0.2	10.4	2,420.4	8.7	1,033.3	201.6	7,211.3	18.0	10,903.8	10,904.0	1.7	10,905.7
2008	—	0.3	10.7	2,786.3	18.9	1,323.1	218.8	7,974.5	25.9	12,358.3	12,358.6	1.8	12,360.4
2009	—	0.2	14.4	R 1,616.6	10.5	662.3	200.1	5,815.0	6.0	R 8,325.0	R 8,325.2	1.7	R 8,326.9
2010	—	0.2	11.0	R 2,083.3	2.0	777.8	153.8	6,941.2	7.7	R 9,976.8	R 9,977.0	1.7	R 9,978.7
2011	—	0.1	15.1	R 2,849.8	2.4	1,048.8	174.9	8,430.3	7.0	R 12,528.3	R 12,528.3	1.6	R 12,529.9
2012	—	0.1	15.7	R 2,984.6	1.5	1,043.9	172.6	8,744.0	4.1	R 12,966.4	R 12,966.5	1.5	R 12,968.0
2013	—	R 0.4	14.0	R 2,975.0	2.2	1,158.8	171.0	8,553.8	4.2	R 12,879.1	R 12,879.5	1.9	R 12,881.4
2014	—	R 0.7	12.4	R 2,970.3	2.6	991.9	176.3	8,102.3	2.6	R 12,258.4	R 12,259.1	2.3	R 12,261.4
2015	—	R 0.8	10.5	R 1,981.6	1.9	594.5	184.5	5,979.7	2.3	R 8,755.0	R 8,755.8	2.3	R 8,758.1
2016	—	R 1.6	8.3	R 1,923.1	2.1	492.0	183.7	5,341.8	2.3	R 7,953.5	R 7,955.1	2.4	R 7,957.5
2017	—	R 5.1	9.5	R 2,206.4	3.7	637.6	171.8	6,108.9	—	R 9,137.8	R 9,142.9	2.3	R 9,145.2
2018	—	R 5.4	10.6	R 2,840.0	1.4	R 809.5	178.7	6,616.5	—	R 10,456.6	R 10,462.1	2.5	R 10,464.5
2019	—	R 6.0	9.9	R 2,794.2	5.3	R 789.2	R 180.1	6,226.0	—	R 10,004.6	R 10,010.6	2.4	R 10,013.0
2020	—	R 5.1	8.4	R 1,875.8	1.6	R 238.9	R 148.3	4,398.8	—	R 6,671.8	R 6,676.9	1.9	R 6,678.8
2021	—	R 6.6	11.7	R 2,677.1	1.8	R 530.6	R 165.0	6,547.4	—	R 9,933.6	R 9,940.2	2.4	R 9,942.5
2022	—	R 7.2	15.1	R 4,114.8	9.7	R 1,098.9	R 208.6	8,596.9	—	R 14,044.1	R 14,051.3	2.5	R 14,053.8
2023	—	6.8	13.0	3,399.3	8.2	1,004.9	165.4	7,941.9	—	12,532.7	12,539.5	2.2	12,541.7

^a Transportation use of natural gas as vehicle fuel only.
^b Beginning in 2009, includes biodiesel blended into distillate fuel oil. Beginning in 2021, includes renewable diesel blended into distillate fuel oil. Beginning in 2021, includes biodiesel and renewable diesel product supplied.
^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 expenditures time series between 2009 and 2010 because of consumption data source and methodology changes, see technical notes.
^e Beginning in 1993, includes fuel ethanol blended into motor gasoline.
^f For 1981 through 1992, includes fuel ethanol blended into motor gasoline that is not included in the motor gasoline column.

^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.
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.
Note: 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.
<https://www.eia.gov/state/seds/>

Table ET7. Electric power sector price and expenditure estimates, selected years, 1970-2023, Minnesota

Year	Coal	Natural gas ^a	Petroleum				Nuclear fuel	Biomass	Electricity imports ^c	Total energy ^d
			Distillate fuel oil	Petroleum coke	Residual fuel oil	Total		Wood and waste ^b		
Prices in dollars per million Btu										
1970	0.34	0.26	0.85	0.28	0.74	0.73	—	0.65	1.92	0.34
1975	0.62	0.64	2.26	0.54	1.95	2.03	0.24	0.92	3.89	0.53
1980	1.04	1.99	5.80	—	4.46	4.86	0.44	1.74	6.94	0.97
1985	1.43	3.69	5.97	—	3.99	5.96	0.50	—	9.34	1.32
1990	1.25	1.92	5.33	0.76	1.86	1.25	0.48	0.62	8.37	1.12
1995	1.14	1.76	4.07	0.69	—	1.17	0.48	0.51	6.21	1.25
2000	1.11	4.49	6.60	0.33	3.56	1.47	0.45	0.40	16.78	1.87
2005	1.11	9.20	10.62	0.43	5.07	2.39	0.46	1.14	16.53	2.30
2006	1.21	8.65	13.53	0.49	8.11	2.80	0.46	1.21	17.32	2.47
2007	1.50	7.18	15.87	1.04	6.55	8.87	0.51	1.17	18.25	2.68
2008	1.66	9.11	21.55	1.14	6.53	8.46	0.48	1.32	18.28	2.65
2009	1.64	6.49	13.54	—	5.90	13.19	0.71	1.25	12.10	2.21
2010	1.75	5.96	16.91	—	—	16.91	0.84	2.17	13.31	2.42
2011	1.93	5.88	23.48	—	—	23.48	0.90	2.34	11.53	2.46
2012	1.98	3.71	23.76	—	—	23.76	0.91	2.14	9.51	2.32
2013	2.00	4.66	23.13	—	—	23.13	0.97	2.11	11.49	2.65
2014	1.95	5.82	22.14	—	—	22.14	0.90	2.11	13.31	2.51
2015	1.90	3.62	13.13	—	—	13.13	0.85	2.05	10.54	2.33
2016	2.06	3.05	11.34	—	—	11.34	0.81	2.03	8.74	2.22
2017	2.09	3.81	13.18	—	—	13.18	0.79	1.76	9.18	2.24
2018	2.19	3.47	16.47	—	—	16.47	0.80	0.99	10.74	2.15
2019	2.02	2.92	14.83	—	—	14.83	0.81	2.35	9.20	2.26
2020	1.94	2.58	9.76	—	—	9.76	0.81	0.93	8.38	1.80
2021	2.15	4.46	15.15	—	—	15.15	0.77	0.43	12.82	2.47
2022	2.33	7.54	25.28	—	—	25.28	0.77	1.02	19.84	3.39
2023	2.40	4.94	20.07	—	—	20.07	0.77	1.04	18.72	3.53
Expenditures in million dollars										
1970	43.1	15.3	2.7	0.2	3.9	6.9	—	0.1	0.8	66.2
1975	84.9	14.2	8.9	0.2	10.4	19.5	25.5	(s)	2.5	146.6
1980	230.9	16.0	5.6	—	10.1	15.8	48.6	(s)	24.0	335.3
1985	286.5	4.7	1.7	—	(s)	1.7	61.4	—	85.9	440.3
1990	373.7	10.4	2.8	3.3	(s)	6.2	61.2	4.8	49.8	505.9
1995	348.7	14.8	3.2	3.2	—	6.4	66.2	4.4	182.0	622.5
2000	370.2	45.2	9.5	2.2	(s)	11.7	61.2	3.6	487.7	979.5
2005	391.9	241.5	14.3	2.7	2.5	19.6	62.2	10.6	572.0	1,297.8
2006	417.3	217.0	11.7	2.1	1.1	14.9	63.4	10.7	662.7	1,386.1
2007	508.8	251.6	36.5	2.0	2.9	41.3	69.7	20.1	631.8	1,523.4
2008	549.9	229.8	19.6	1.8	1.0	22.4	64.8	23.5	547.4	1,437.9
2009	500.7	155.4	9.6	—	0.2	9.8	92.1	26.1	342.2	1,126.3
2010	506.1	217.1	6.2	—	—	6.2	118.1	52.7	353.4	1,253.6
2011	560.3	167.6	7.0	—	—	7.0	112.4	50.3	312.9	1,210.4
2012	467.5	216.6	8.1	—	—	8.1	114.2	51.9	226.4	1,084.7
2013	488.2	237.2	9.1	—	—	9.1	108.5	42.2	320.5	1,205.6
2014	565.8	184.6	14.9	—	—	14.9	119.4	46.7	326.4	1,257.8
2015	482.1	202.0	4.4	—	—	4.4	106.4	46.0	289.1	1,130.0
2016	496.9	208.9	4.0	—	—	4.0	117.0	46.2	253.7	1,126.6
2017	492.2	196.4	4.3	—	—	4.3	114.4	39.8	227.6	1,074.6
2018	530.2	234.2	7.2	—	—	7.2	121.9	17.6	153.9	1,065.0
2019	376.2	275.2	8.5	—	—	8.5	119.0	22.0	250.7	1,051.5
2020	289.1	240.3	2.9	—	—	2.9	123.5	8.1	83.1	747.1
2021	353.0	453.5	18.7	—	—	18.7	114.1	3.7	124.1	1,067.0
2022	390.9	533.8	14.5	—	—	14.5	118.2	9.1	355.0	1,421.5
2023	316.4	535.9	18.1	—	—	18.1	96.4	8.3	422.5	1,397.7

^a Includes supplemental gaseous fuels that are commingled with natural gas.
^b 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.
^c Electricity imported from Canada and Mexico.
^d There are no direct fuel costs for hydroelectric, geothermal, solar, or wind energy.
 Where shown, R = Revised data, — = No consumption, and (s) = Value less than 0.05 million dollars.
 Notes: · Expenditure 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.
 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/>