Table CO2.T1. Total CO2 emissions estimates from energy consumption by source, 1960-2023, Minnesota

(million metric tons of carbon dioxide (CO2))

Year	Coal	Natural gas [a]	Petroleum [b]	Total
1960	12.4	9.8	25.7	47.9
1965	15.1	13.0	28.3	56.5
1970	17.0	18.0	34.2	69.3
1975	18.1	17.4	37.2	72.7
1980	23.1	14.9	33.2	71.2
1985	21.5	13.6	31.6	66.6
1990	30.9	15.3	32.6	78.9
1995	32.1	18.8	37.9	88.8
1996	33.7	19.7	40.4	93.7
1997	32.4	18.9	40.2	91.5
1998	33.9	17.7	40.1	91.7
1999	32.5	18.4	41.6	92.5
2000	35.6	19.3	43.1	98.0
2001	33.6	18.1	43.0	94.7
2002	34.4	19.7	42.9	97.0
2003	37.3	19.7	44.7	101.7
2004	36.2	19.1	45.3	100.6
2005	36.2	19.6	45.7	101.6
2006	35.4	18.9	44.7	98.9
2007	34.9	20.8	44.7	100.4
2008	34.3	22.9	42.7	99.9
2009	31.4	21.3	39.1	91.7
2010	30.1	22.4	39.2	91.7
2011	30.1	22.3	38.5	91.0
2012	24.6	22.6	38.8	86.0
2013	25.6	25.2	39.7	90.4
2014	29.9	25.7	39.7	95.3
2015	26.0	23.4	39.2	88.5
2016	25.0	24.3	40.9	90.2
2017	24.6	24.3	41.4	90.4
2018	25.0	26.8	41.6	93.5
2019	19.6	28.7	42.3	90.6
2020	15.6	25.9	35.5	77.0
2021	17.2	27.4	38.0	82.5
2022	17.7	28.0	38.5	84.2
2023	14.3	28.1	38.5	80.8

[a] Excludes supplemental gaseous fuels.
[b] Excludes biofuels.
— = No consumption. Where shown, R = Revised data and (s) = Value less than 0.05.

Notes: · Data are carbon dioxide (CO2) emissions estimates from fossil fuels primary energy consumption for all sectors, excluding renewable energy. The state data do not account for interstate flow of electricity and represent CO2 emissions in the state where fossil fuels are burned to generate electricity, although the electricity might be sold to ultimate customers in other states and 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: Table by the U.S. Energy Information Administration, State Energy Data System. See technical notes. http://wwws.eia.gov/state/seds/

Table CO2.T2. Residential sector CO2 emissions estimates from energy consumption, 1960-2023, Minnesota

(million metric tons of carbon dioxide (CO2))

Year	Coal [a]	Natural gas [b]	Petroleum [c]	Total
1960	1.2	3.4	3.8	8.4
1965	0.7	4.6	4.4	9.7
1970	0.6	5.4	5.2	11.2
1975	0.1	6.1	4.8	11.1
1980	0.1	5.5	3.3	8.9
1985	0.1	5.7	2.4	8.1
1990	0.1	5.7	2.4	8.1
1995	0.1	6.9	2.5	9.4
1996	(s)	7.7	3.0	10.7
1997	(s)	7.0	2.7	9.7
1998	(s)	6.0	2.1	8.1
1999	(s)	6.4	2.1	8.5
2000	(s)	7.0	2.4	9.3
2001	(s)	6.7	2.3	8.9
2002	(s)	7.2	2.1	9.4
2003	(s)	7.4	2.5	9.9
2004	(s)	7.1	2.3	9.4
2005	(s)	6.9	2.1	9.0
2006	(s)	6.3	1.9	8.2
2007	(s)	7.0	1.9	8.9
2008	—	7.6	2.0	9.6
2009	—	7.3	1.7	9.0
2010	—	6.6	1.7	8.3
2011	—	6.7	1.7	8.4
2012	—	5.9	1.4	7.3
2013	—	7.6	1.7	9.2
2014	—	8.0	1.9	9.9
2015	—	6.5	1.6	8.1
2016	—	6.4	1.6	8.1
2017	—	6.8	1.8	8.6
2018	—	7.8	2.1	9.9
2019	—	8.0	2.2	10.2
2020	—	7.2	2.0	9.2
2021	—	7.3	2.0	9.3
2022	—	8.4	2.2	10.6
2023	—	7.3	2.0	9.3

[a] Beginning in 2008, consumption data not collected and assumed to be zero.
[b] Excludes supplemental gaseous fuels.
[c] Excludes biofuels.
— = No consumption. Where shown, R = Revised data and (s) = Value less than 0.05.

Notes: · Data are carbon dioxide (CO2) emissions estimates from fossil fuels primary energy consumption, excluding renewable energy. The state data do not account for interstate flow of electricity and represent CO2 emissions in the state where fossil fuels are burned to generate electricity, although the electricity might be sold to ultimate customers in other states and 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: Table by the U.S. Energy Information Administration, State Energy Data System. See technical notes. https://www.eia.gov/state/seds/

Table CO2.T3. Commercial sector CO2 emissions estimates from energy consumption, 1960-2023, Minnesota

(million metric tons of carbon dioxide (CO2))

Year	Coal	Natural gas [a]	Petroleum [b]	Total
1960	0.8	1.1	1.2	3.1
1965	0.6	1.4	1.2	3.2
1970	0.5	4.1	1.4	5.9
1975	0.3	4.8	1.3	6.3
1980	0.2	3.4	0.9	4.5
1985	0.3	4.1	1.6	6.0
1990	0.2	4.2	1.3	5.7
1995	0.4	4.9	0.6	5.9
1996	0.2	5.3	0.7	6.3
1997	0.2	5.0	1.0	6.2
1998	0.1	4.4	0.9	5.4
1999	(s)	4.8	0.7	5.4
2000	(s)	5.1	0.7	5.8
2001	(s)	5.0	0.8	5.8
2002	0.2	5.6	0.6	6.4
2003	(s)	5.4	1.0	6.4
2004	(s)	5.2	0.8	5.9
2005	0.1	5.1	0.8	6.0
2006	0.1	4.7	1.1	5.9
2007	0.1	4.9	0.8	5.9
2008	0.1	5.4	1.0	6.5
2009	0.1	5.3	1.0	6.3
2010	0.1	4.8	0.8	5.7
2011	0.1	5.1	0.9	6.0
2012	(s)	4.5	0.8	5.3
2013	(s)	5.7	1.0	6.7
2014	(s)	6.1	1.0	7.1
2015	(s)	5.1	1.2	6.3
2016	(s)	5.1	1.2	6.3
2017	(s)	5.4	1.1	6.6
2018	(s)	6.1	1.1	7.2
2019	(s)	6.3	1.0	7.3
2020	(s)	5.6	1.0	6.6
2021	(s)	5.7	1.1	6.8
2022	(s)	6.7	1.4	8.1
2023	(s)	6.0	1.1	7.1

[a] Excludes supplemental gaseous fuels.
[b] Excludes biofuels.
— = No consumption. Where shown, R = Revised data and (s) = Value less than 0.05.

Notes: · Data are carbon dioxide (CO2) emissions estimates from fossil fuels primary energy consumption, excluding renewable energy. The state data do not account for interstate flow of electricity and represent CO2 emissions in the state where fossil fuels are burned to generate electricity, although the electricity might be sold to ultimate customers in other states and sectors. · 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: Table by the U.S. Energy Information Administration, State Energy Data System. See technical notes. https://www.eia.gov/state/seds/

Table CO2.T4. Industrial sector CO2 emissions estimates from energy consumption, 1960-2023, Minnesota

(million metric tons of carbon dioxide (CO2))

Year	Coal	Natural gas [a]	Petroleum [b]	Total
1960	5.2	2.6	7.7	15.5
1965	5.7	4.2	8.0	17.9
1970	3.9	5.0	8.0	17.0
1975	4.7	5.2	7.9	17.8
1980	1.7	5.2	5.8	12.7
1985	2.0	3.4	4.5	10.0
1990	2.3	4.6	5.4	12.2
1995	2.5	5.5	5.8	13.9
1996	3.8	5.3	6.5	15.6
1997	2.7	5.6	6.7	14.9
1998	3.5	5.4	5.9	14.9
1999	3.4	5.4	5.5	14.4
2000	3.8	5.5	5.3	14.7
2001	2.3	4.8	6.1	13.2
2002	2.3	4.9	6.0	13.2
2003	2.2	5.0	6.3	13.5
2004	2.3	5.1	6.5	13.9
2005	2.3	5.0	6.8	14.1
2006	2.3	5.4	6.4	14.1
2007	2.4	6.0	6.6	15.0
2008	2.5	7.6	6.5	16.5
2009	2.1	6.8	5.7	14.7
2010	2.4	8.3	6.5	17.1
2011	2.3	8.2	6.6	17.2
2012	2.0	8.4	6.6	17.1
2013	2.3	8.5	6.9	17.6
2014	2.2	9.2	6.7	18.2
2015	1.7	8.3	6.3	16.2
2016	1.9	8.6	6.5	16.9
2017	2.1	8.7	6.8	17.5
2018	1.9	8.6	7.1	17.5
2019	1.8	8.7	7.5	18.0
2020	1.3	7.5	7.3	16.1
2021	1.4	8.2	7.1	16.7
2022	1.6	8.2	7.0	16.7
2023	1.6	8.2	6.8	16.6

[a] Excludes supplemental gaseous fuels.
[b] Excludes biofuels.
— = No consumption. Where shown, R = Revised data and (s) = Value less than 0.05.

Notes: · Data are carbon dioxide (CO2) emissions estimates from fossil fuels primary energy consumption, excluding renewable energy. The state data do not account for interstate flow of electricity and represent CO2 emissions in the state where fossil fuels are burned to generate electricity, although the electricity might be sold to ultimate customers in other states and sectors. · 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 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: Table by the U.S. Energy Information Administration, State Energy Data System. See technical notes. https://www.eia.gov/state/seds/

Table CO2.T5. Transportation sector CO2 emissions estimates from energy consumption, 1960-2023, Minnesota

(million metric tons of carbon dioxide (CO2))

Year	Coal [a]	Natural gas [b]	Petroleum [c]	Total
1960	0.1	(s)	12.7	12.8
1965	(s)	0.1	14.6	14.7
1970	(s)	0.4	18.9	19.3
1975	(s)	0.2	22.4	22.6
1980	—	0.5	22.9	23.4
1985	—	0.3	23.1	23.4
1990	—	0.6	23.1	23.8
1995	—	1.0	28.5	29.5
1996	—	1.1	29.4	30.5
1997	—	1.1	28.9	30.0
1998	—	1.1	30.4	31.5
1999	—	1.2	32.4	33.6
2000	—	1.1	33.9	35.1
2001	—	1.0	33.1	34.1
2002	—	1.2	33.4	34.7
2003	—	1.1	34.0	35.1
2004	—	1.1	34.9	36.0
2005	—	1.2	35.2	36.4
2006	—	1.1	34.9	36.0
2007	—	1.1	35.0	36.0
2008	—	1.0	33.0	33.9
2009	—	0.7	30.6	31.3
2010	—	0.8	30.1	30.9
2011	—	0.8	29.3	30.1
2012	—	0.7	29.9	30.6
2013	—	0.6	30.2	30.8
2014	—	0.7	30.0	30.8
2015	—	0.6	30.1	30.6
2016	—	0.6	31.6	32.3
2017	—	0.7	31.7	32.4
2018	—	0.8	31.4	32.2
2019	—	0.7	31.5	32.2
2020	—	0.6	25.2	25.8
2021	—	0.9	27.7	28.5
2022	—	1.0	27.9	28.9
2023	—	0.8	28.6	29.4

[a] Beginning in 1978, consumption data not collected and assumed to be zero.

[b] Transportation use of natural gas to operate pipelines and as vehicle fuel. Excludes supplemental gaseous fuels.

[c] Excludes biofuels.

— = No consumption. Where shown, R = Revised data and (s) = Value less than 0.05.

Notes: · Data are carbon dioxide (CO2) emissions estimates from fossil fuels primary energy consumption, excluding renewable energy. The state data do not account for interstate flow of electricity and represent CO2 emissions in the state where fossil fuels are burned to generate electricity, although the electricity might be sold to ultimate customers in other states and 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: Table by the U.S. Energy Information Administration, State Energy Data System. See technical notes. https://www.eia.gov/state/seds/

Table CO2.T6. Electric power sector CO2 emissions estimates from energy consumption, 1960-2023, Minnesota

(million metric tons of carbon dioxide (CO2))

Year	Coal	Natural gas [a]	Petroleum [b]	Total
1960	5.2	2.7	0.2	8.0
1965	8.1	2.7	0.2	11.1
1970	11.9	3.1	0.7	15.8
1975	13.0	1.2	0.7	14.9
1980	21.1	0.4	0.2	21.7
1985	19.1	0.1	(s)	19.2
1990	28.4	0.3	0.5	29.2
1995	29.1	0.4	0.5	30.1
1996	29.6	0.3	0.7	30.6
1997	29.6	0.3	0.9	30.8
1998	30.3	0.7	0.7	31.7
1999	29.0	0.6	0.9	30.5
2000	31.8	0.5	0.8	33.1
2001	31.3	0.6	0.7	32.6
2002	31.9	0.7	0.7	33.3
2003	35.1	0.9	0.9	36.9
2004	33.8	0.7	0.8	35.3
2005	33.8	1.4	0.8	35.9
2006	32.9	1.3	0.5	34.8
2007	32.4	1.9	0.4	34.6
2008	31.7	1.3	0.2	33.3
2009	29.2	1.3	0.1	30.5
2010	27.7	1.9	(s)	29.6
2011	27.7	1.5	(s)	29.3
2012	22.6	3.1	(s)	25.7
2013	23.3	2.7	(s)	26.0
2014	27.7	1.7	(s)	29.4
2015	24.3	3.0	(s)	27.3
2016	23.1	3.6	(s)	26.7
2017	22.5	2.7	(s)	25.3
2018	23.1	3.6	(s)	26.7
2019	17.8	5.0	(s)	22.9
2020	14.3	4.9	(s)	19.2
2021	15.7	5.4	0.1	21.2
2022	16.1	3.7	(s)	19.9
2023	12.6	5.7	0.1	18.4

[a] Excludes supplemental gaseous fuels.
[b] Excludes biofuels.
— = No consumption. Where shown, R = Revised data and (s) = Value less than 0.05.

Notes: · Data are carbon dioxide (CO2) emissions estimates from fossil fuels primary energy consumption, excluding renewable energy. The state data do not account for interstate flow of electricity and represent CO2 emissions in the state where fossil fuels are burned to generate electricity, although the electricity might be sold to ultimate customers in other states and sectors. · 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. · 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: Table by the U.S. Energy Information Administration, State Energy Data System. See technical notes. https://www.eia.gov/state/seds/