

Table 12.4 Carbon Dioxide Emissions From Consumption of Energy for All Purposes in the Manufacturing Sector, 2002

(Million Metric Tons of Carbon Dioxide,¹ Except as Noted)

NAICS ² Code	Major Group	Carbon Dioxide Emissions					Carbon Dioxide Emissions per Unit of Primary Consumption ⁵	Carbon Dioxide Emissions per Chained Dollar of Shipments ⁶	
		Coal	Natural Gas	Petroleum	Electricity ³	Other ⁴			Total
311	Food	17.3	30.7	2.9	43.8	0.1	94.7	60.1	215.2
312	Beverage and Tobacco Products	1.6	2.4	0.4	4.9	(s)	9.4	60.4	93.1
313	Textile Mills	2.1	4.0	0.6	16.4	0.0	23.0	61.1	518.3
314	Textile Product Mills	0.7	1.5	0.3	3.2	0.0	5.8	62.1	170.7
315	Apparel	0.0	0.8	0.1	2.3	0.0	3.2	59.7	59.3
316	Leather and Allied Products	0.0	0.2	0.0	0.4	0.0	0.6	54.1	59.1
321	Wood Products	0.1	3.0	1.2	13.7	0.4	18.4	35.6	205.7
322	Paper	22.5	26.6	10.0	42.4	0.8	102.4	36.6	661.3
323	Printing and Related Support	0.0	2.4	0.1	9.5	0.0	12.0	61.2	125.9
324	Petroleum and Coal Products	19.3	46.4	153.9	24.6	60.8	304.8	43.2	1,301.1
325	Chemicals	32.8	106.2	70.2	99.4	2.4	311.0	41.5	738.1
326	Plastics and Rubber Products	2.1	6.8	0.9	34.5	(s)	44.2	62.6	249.4
327	Nonmetallic Mineral Products	30.1	22.3	11.4	26.8	0.4	91.1	68.2	1,046.0
331	Primary Metals	72.4	37.2	2.4	93.8	7.0	212.8	68.9	1,511.1
332	Fabricated Metal Products	0.8	11.1	0.9	30.6	0.0	43.4	61.6	173.4
333	Machinery	0.1	4.3	0.4	16.0	(s)	20.8	60.8	82.3
334	Computer and Electronic Products	0.0	3.4	0.2	24.9	(s)	28.5	62.3	59.9
335	Electrical Equipment, Appliances, and Components	0.0	2.8	0.1	8.9	2.3	14.2	53.7	135.3
336	Transportation Equipment	1.0	10.7	1.2	32.7	0.1	45.7	59.6	74.1
337	Furniture and Related Products	0.1	1.3	0.1	4.6	0.1	6.3	56.2	91.5
339	Miscellaneous	0.0	1.7	0.1	6.7	0.0	8.5	60.7	71.7
—	Total Manufacturing	202.8	325.9	257.6	540.7	74.2	1,401.2	49.6	352.7

¹ Metric tons of carbon dioxide can be converted to metric tons of carbon equivalent by multiplying by 12/44.

² North American Industry Classification System (NAICS).

³ Carbon dioxide emitted from energy inputs used to produce electricity (including associated losses), derived by calculating the manufacturing subsector share of the electric power sector's total carbon dioxide emissions based upon the weighted share of electricity retail sales to (receipts by) the manufacturing subsector.

⁴ Includes all other types of energy that respondents indicated were consumed or allocated, such as asphalt and road oil, lubricants, naphtha < 401° F, other oils >= 401° F, special naphthas, waxes, and miscellaneous nonfuel products, which are nonfuel products assigned to the petroleum refining industry group (NAICS 324110).

⁵ Data are in million metric tons of carbon dioxide per quadrillion Btu of energy (including allocated electricity losses).

⁶ Data are in metric tons of carbon dioxide per million chained (2000) dollars.

(s)=Less than 0.05 million metric tons.

Notes: • Data are estimates for the first use of energy for heat and power and as feedstocks or raw material inputs. "First use" is the consumption of energy that was originally produced offsite or was produced onsite from input materials not classified as energy. Minor revisions to the 2002 Manufacturing Energy Consumption Survey (MECS) consumption data have been made since the estimates in this table have been computed. The revisions would likely not have a discernible effect on the estimates shown. • Electricity was converted from point-of-use to primary electricity using Table A6 of this report. • See Table 2.2 for manufacturing energy use. • Totals may not equal sum of components due to independent rounding.

Web Page: For related information, see <http://www.eia.doe.gov/emeu/mecs>.

Sources: Energy Information Administration, Form EIA-846, "2002 Manufacturing Energy Consumption Survey," Form EIA-810, "Monthly Refinery Report" (for 2002), and *Documentation for Emissions of Greenhouse Gases in the United States 2003* (May 2005).