

Table 11.7 Carbon Dioxide Emissions From Biomass Energy Consumption
(Million Metric Tons of Carbon Dioxide^a)

	By Source					By Sector					
	Wood ^b	Biomass Waste ^c	Fuel Ethanol ^d	Bio-diesel ^e	Total ^f	Residential	Commercial ^g	Industrial ^h	Transportation	Electric Power ⁱ	Total ^f
1973 Total	143	(s)	NA	NA	143	33	1	109	NA	(s)	143
1975 Total	140	(s)	NA	NA	141	40	1	100	NA	(s)	141
1980 Total	232	(s)	NA	NA	232	80	2	150	NA	(s)	232
1985 Total	252	14	3	NA	270	95	2	168	3	1	270
1990 Total	208	24	4	NA	237	54	8	147	4	23	237
1995 Total	222	30	8	NA	260	49	9	166	8	28	260
2000 Total	212	27	9	NA	248	39	9	161	9	29	248
2005 Total	200	37	23	1	261	40	10	150	23	37	261
2010 Total	208	42	73	2	325	51	10	149	74	42	325
2011 Total	208	42	73	8	331	49	11	151	80	40	331
2012 Total	202	42	73	8	325	41	10	153	80	42	325
2013 Total	219	45	75	13	353	54	11	158	87	43	353
2014 Total	225	47	76	13	361	54	12	158	88	49	361
2015 Total	217	47	79	14	357	48	13	157	90	48	357
2016 Total	209	46	81	20	355	42	14	155	98	47	355
2017 Total	205	45	82	19	351	40	14	152	98	47	351
2018 Total	212	44	82	18	356	49	14	151	97	46	356
2019 Total	210	40	83	17	350	51	13	147	97	41	350
2020 Total	185	40	72	18	314	32	13	143	86	39	314
2021 Total	187	39	79	16	321	32	13	144	92	39	321
2022 January	16	3	6	1	27	3	1	12	7	3	27
February	15	3	6	1	25	3	1	11	7	3	25
March	16	3	7	1	27	3	1	12	8	3	27
April	15	3	6	1	26	3	1	12	7	3	26
May	16	3	7	1	27	3	1	12	8	3	27
June	16	3	7	1	27	3	1	12	8	3	27
July	16	3	7	1	28	3	1	12	8	3	28
August	16	3	7	1	28	3	1	12	8	3	28
September	15	3	6	1	26	3	1	11	7	3	26
October	15	3	7	1	27	3	1	11	8	3	27
November	15	3	7	1	27	3	1	11	8	3	27
December	16	3	7	1	27	3	1	12	8	3	27
Total	189	37	80	16	321	40	17	139	92	35	321
2023 January	16	3	7	1	27	4	1	12	8	3	27
February	14	3	6	1	24	3	1	11	7	3	24
March	16	3	7	1	27	4	1	11	8	3	27
April	14	3	6	1	25	3	1	10	7	2	25
May	15	3	7	2	27	4	1	11	8	3	27
June	15	3	7	2	26	3	1	10	8	3	26
July	15	3	7	2	27	4	1	11	8	3	27
August	15	3	7	2	27	4	1	11	8	3	27
September	14	3	7	2	25	3	1	10	8	2	25
October	14	3	7	2	26	4	1	11	8	2	26
November	15	3	7	2	26	3	1	11	8	2	26
December	15	3	7	1	27	4	1	11	8	2	27
Total	180	36	81	18	315	42	16	131	95	30	315
2024 January	15	3	6	1	26	3	1	11	7	3	26
February	14	3	6	2	24	3	1	10	8	2	24
March	15	3	7	1	26	3	1	11	8	2	26
April	14	3	6	2	25	3	1	11	8	2	25
4-Month Total	57	12	25	6	101	12	5	43	30	10	101
2023 4-Month Total	61	12	26	5	104	14	5	44	30	10	104
2022 4-Month Total	63	13	25	5	105	13	5	46	29	12	105

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

^b Wood and wood-derived fuels.

^c Municipal solid waste from biogenic sources, landfill gas, sludge waste, agricultural byproducts, and other biomass.

^d Fuel ethanol minus denaturant.

^e "Biodiesel" is primarily fatty acid methyl esters (FAME). See "Biodiesel" in Glossary.

^f Includes energy-related carbon dioxide emissions from wood, biomass waste, fuel ethanol (minus denaturant), and biodiesel; excludes emissions from renewable diesel fuel and "other biofuels." See "Renewable Diesel Fuel" and "Other Biofuels" in Glossary.

^g Commercial sector, including commercial combined-heat-and-power (CHP) and commercial electricity-only plants.

^h Industrial sector, including industrial combined-heat-and-power (CHP) and industrial electricity-only plants.

ⁱ The electric power sector comprises 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.

NA=Not available. (s)=Less than 0.5 million metric tons.

Notes: • Except for small amounts of emissions from "other biofuels" beginning in 2012, carbon dioxide emissions from biomass energy consumption are excluded from the energy-related carbon dioxide emissions reported in Tables 11.1–11.6.

See "Biomass" and "Other Biofuels" in Glossary. See Note 2, "Accounting for Carbon Dioxide Emissions From Biomass Energy Combustion," at end of section.

• Data are estimates. See "Section 11 Methodology and Sources" at end of section. • See "Carbon Dioxide" in Glossary. • See Note 1, "Emissions of Carbon Dioxide and Other Greenhouse Gases," at end of section. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 states and the District of Columbia.

Web Page: See <http://www.eia.gov/totalenergy/data/monthly/#environment> (Excel and CSV files) for all available annual and monthly data beginning in 1973.

Sources: See end of section.