

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	Resi-dential	Com-mercial ^g	Indus-trial ^h	Trans-portion	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	11	158	88	49	361
2015 Total	216	47	79	14	356	48	13	157	90	48	356
2016 Total	208	46	81	20	354	42	13	155	98	47	354
2017 Total	205	45	82	19	351	40	14	152	98	47	351
2018 Total	211	44	82	18	355	49	13	151	97	46	355
2019 Total	209	40	83	17	349	51	12	147	97	41	349
2020 Total	184	40	72	18	313	32	12	143	86	39	313
2021 Total	186	39	79	16	320	32	12	144	92	39	320
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	27	3	1	12	8	3	27
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	188	37	80	16	320	40	16	139	92	35	320
2023 January	16	3	6	1	27	4	1	12	7	3	27
February	14	3	6	1	24	3	1	10	7	3	24
March	16	3	7	1	27	4	1	11	8	3	27
April	14	3	6	1	25	3	1	11	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	16	3	7	2	27	4	1	11	8	3	27
September	15	3	6	2	26	3	1	11	8	2	26
October	15	3	7	2	27	4	1	11	8	2	27
November	15	3	7	2	26	3	1	11	8	2	26
December	16	3	7	1	27	4	1	11	8	3	27
Total	181	36	81	18	316	42	15	131	95	32	316
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
May	15	3	7	2	27	3	1	11	9	2	27
June	14	3	7	2	25	3	1	10	8	2	25
July	14	3	7	2	26	3	1	11	8	2	26
August	15	3	7	1	26	3	1	11	8	3	26
September	14	3	7	1	25	3	1	11	8	2	25
October	14	3	7	1	26	3	1	11	8	2	26
10-Month Total	144	29	67	15	255	31	13	108	80	24	255
2023 10-Month Total	150	30	67	15	262	35	13	109	79	26	262
2022 10-Month Total	157	31	66	13	267	33	13	116	76	29	267

^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.