

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 | Total | Residential | Commercial ^e | Industrial ^f | Transportation | Electric Power ^g | Total |
| 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 |
| 1996 Total | 229 | 32 | 6 | NA | 266 | 51 | 10 | 170 | 6 | 30 | 266 |
| 1997 Total | 222 | 30 | 7 | NA | 259 | 40 | 10 | 172 | 7 | 30 | 259 |
| 1998 Total | 205 | 30 | 8 | NA | 242 | 36 | 9 | 160 | 8 | 30 | 242 |
| 1999 Total | 208 | 29 | 8 | NA | 245 | 37 | 9 | 161 | 8 | 30 | 245 |
| 2000 Total | 212 | 27 | 9 | NA | 248 | 39 | 9 | 161 | 9 | 29 | 248 |
| 2001 Total | 188 | 33 | 10 | (s) | 231 | 35 | 9 | 147 | 10 | 31 | 231 |
| 2002 Total | 187 | 36 | 12 | (s) | 235 | 36 | 9 | 144 | 12 | 35 | 235 |
| 2003 Total | 188 | 36 | 16 | (s) | 240 | 38 | 9 | 141 | 16 | 37 | 240 |
| 2004 Total | 199 | 35 | 20 | (s) | 255 | 38 | 10 | 151 | 20 | 36 | 255 |
| 2005 Total | 200 | 37 | 23 | 1 | 261 | 40 | 10 | 150 | 23 | 37 | 261 |
| 2006 Total | 197 | 36 | 31 | 2 | 266 | 36 | 9 | 151 | 33 | 38 | 266 |
| 2007 Total | 196 | 37 | 39 | 3 | 276 | 39 | 9 | 146 | 41 | 39 | 276 |
| 2008 Total | 193 | 39 | 55 | 3 | 290 | 44 | 10 | 139 | 57 | 40 | 290 |
| 2009 Total | 182 | 41 | 62 | 3 | 288 | 47 | 10 | 125 | 64 | 41 | 288 |
| 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 | 356 | 42 | 14 | 155 | 98 | 47 | 356 |
| 2017 January | 18 | 4 | 6 | 1 | 30 | 3 | 1 | 14 | 7 | 4 | 30 |
| February | 16 | 4 | 6 | 1 | 27 | 3 | 1 | 12 | 7 | 4 | 27 |
| March | 18 | 4 | 7 | 1 | 30 | 3 | 1 | 14 | 8 | 4 | 30 |
| April | 17 | 4 | 7 | 2 | 29 | 3 | 1 | 13 | 8 | 4 | 29 |
| May | 18 | 4 | 7 | 2 | 30 | 3 | 1 | 13 | 9 | 4 | 30 |
| June | 18 | 4 | 7 | 2 | 30 | 3 | 1 | 13 | 9 | 4 | 30 |
| July | 18 | 4 | 7 | 2 | 31 | 3 | 1 | 14 | 8 | 4 | 31 |
| August | 19 | 4 | 7 | 2 | 32 | 3 | 1 | 14 | 9 | 4 | 32 |
| September | 17 | 3 | 7 | 2 | 29 | 3 | 1 | 13 | 8 | 4 | 29 |
| October | 18 | 4 | 7 | 2 | 30 | 3 | 1 | 13 | 8 | 4 | 30 |
| November | 18 | 4 | 7 | 2 | 30 | 3 | 1 | 14 | 8 | 4 | 30 |
| December | 19 | 4 | 7 | 2 | 31 | 3 | 1 | 14 | 8 | 4 | 31 |
| Total | 214 | 45 | 82 | 19 | 360 | 41 | 14 | 161 | 98 | 47 | 360 |
| 2018 January | 19 | 4 | 7 | 1 | 31 | 4 | 1 | 14 | 8 | 4 | 31 |
| February | 17 | 4 | 6 | 1 | 28 | 4 | 1 | 13 | 7 | 4 | 28 |
| March | 19 | 4 | 7 | 1 | 31 | 4 | 1 | 13 | 8 | 4 | 31 |
| April | 18 | 4 | 6 | 1 | 29 | 4 | 1 | 13 | 7 | 3 | 29 |
| May | 19 | 4 | 7 | 2 | 31 | 4 | 1 | 13 | 9 | 4 | 31 |
| June | 18 | 4 | 7 | 2 | 31 | 4 | 1 | 13 | 8 | 4 | 31 |
| July | 19 | 4 | 7 | 2 | 31 | 4 | 1 | 14 | 9 | 4 | 31 |
| August | 19 | 4 | 7 | 2 | 32 | 4 | 1 | 14 | 9 | 4 | 32 |
| September | 18 | 3 | 6 | 2 | 29 | 4 | 1 | 13 | 8 | 3 | 29 |
| October | 18 | 4 | 7 | 2 | 31 | 4 | 1 | 13 | 8 | 4 | 31 |
| November | 18 | 4 | 7 | 1 | 30 | 4 | 1 | 13 | 8 | 4 | 30 |
| December | 19 | 4 | 7 | 2 | 31 | 4 | 1 | 14 | 8 | 4 | 31 |
| Total | 221 | 45 | 82 | 18 | 365 | 49 | 14 | 161 | 97 | 46 | 365 |
| 2019 January | 19 | 4 | 6 | 1 | 30 | 4 | 1 | 14 | 7 | 4 | 30 |
| February | 17 | 3 | 6 | 1 | 28 | 4 | 1 | 12 | 7 | 3 | 28 |
| March | 18 | 4 | 7 | 1 | 30 | 4 | 1 | 13 | 8 | 4 | 30 |
| April | 18 | 3 | 7 | 1 | 29 | 4 | 1 | 13 | 8 | 3 | 29 |
| May | 18 | 3 | 7 | 2 | 31 | 4 | 1 | 13 | 9 | 4 | 31 |
| 5-Month Total | 90 | 18 | 33 | 7 | 148 | 21 | 6 | 65 | 39 | 18 | 148 |
| 2018 5-Month Total | 91 | 19 | 33 | 7 | 150 | 20 | 6 | 67 | 39 | 19 | 150 |
| 2017 5-Month Total | 88 | 19 | 33 | 7 | 147 | 17 | 6 | 66 | 39 | 19 | 147 |

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

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

^g 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: • Carbon dioxide emissions from biomass energy consumption are excluded from the energy-related carbon dioxide emissions reported in Tables 11.1–11.6. 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.