

**Table 11.3c Carbon Dioxide Emissions From Energy Consumption: Industrial Sector, Selected Years, 1949-2010**  
(Million Metric Tons of Carbon Dioxide <sup>1</sup>)

| Year              | Coal | Coal<br>Coke<br>Net<br>Imports | Natural<br>Gas <sup>3</sup> | Petroleum                           |               |                  |                 |                                |                   |                      |                    |       | Retail<br>Elec-<br>tricity <sup>8</sup> | Total <sup>2</sup> | Biomass <sup>2</sup> |                     |                               |       |
|-------------------|------|--------------------------------|-----------------------------|-------------------------------------|---------------|------------------|-----------------|--------------------------------|-------------------|----------------------|--------------------|-------|---|--------------------|----------------------|---------------------|-------------------------------|-------|
|                   |      |                                |                             | Distillate<br>Fuel Oil <sup>4</sup> | Kero-<br>sene | LPG <sup>5</sup> | Lubri-<br>cants | Motor<br>Gasoline <sup>6</sup> | Petroleum<br>Coke | Residual<br>Fuel Oil | Other <sup>7</sup> | Total |   |                    | Wood <sup>9</sup>    | Waste <sup>10</sup> | Fuel<br>Ethanol <sup>11</sup> | Total |
| 1949              | 500  | -1                             | 166                         | 41                                  | 18            | 3                | 3               | 16                             | 8                 | 95                   | 25                 | 209   | 120                                     | R995               | 44                   | NA                  | NA                            | 44    |
| 1950              | 531  | (s)                            | 184                         | 51                                  | 20            | 4                | 3               | 18                             | 8                 | 110                  | 26                 | 239   | 140                                     | R1,095             | 50                   | NA                  | NA                            | 50    |
| 1955              | 516  | -1                             | 244                         | 72                                  | 17            | 10               | 4               | 24                             | 13                | 122                  | 38                 | 299   | 222                                     | R1,281             | 59                   | NA                  | NA                            | 59    |
| 1960              | 418  | -1                             | 310                         | 74                                  | 12            | 17               | 4               | 27                             | 29                | 123                  | 45                 | R329  | 252                                     | R1,308             | 64                   | NA                  | NA                            | 64    |
| 1965              | 471  | -2                             | 380                         | 83                                  | 12            | 24               | 5               | 24                             | 39                | 123                  | 65                 | R376  | 328                                     | R1,553             | 80                   | NA                  | NA                            | 80    |
| 1970              | 427  | -7                             | 494                         | 89                                  | 13            | 31               | 6               | 21                             | 39                | 126                  | 85                 | R410  | 434                                     | R1,759             | 96                   | NA                  | NA                            | 96    |
| 1975              | 336  | 2                              | 442                         | 97                                  | 9             | 39               | 6               | 16                             | 48                | 117                  | 97                 | R427  | 490                                     | R1,696             | 100                  | NA                  | NA                            | 100   |
| 1976              | 335  | (s)                            | 453                         | 111                                 | 9             | 41               | 6               | 15                             | 47                | 141                  | 103                | R474  | 549                                     | R1,811             | 114                  | NA                  | NA                            | 114   |
| 1977              | 316  | 2                              | 447                         | 125                                 | 10            | 40               | 7               | 14                             | 52                | 150                  | 115                | R513  | 582                                     | R1,860             | 120                  | NA                  | NA                            | 120   |
| 1978              | 304  | 14                             | 442                         | 127                                 | 11            | 40               | 7               | 13                             | 48                | 133                  | 127                | R506  | 580                                     | R1,846             | 131                  | NA                  | NA                            | 131   |
| 1979              | 329  | 7                              | 442                         | 128                                 | 13            | 66               | 8               | 11                             | 47                | 128                  | 139                | R540  | 612                                     | R1,931             | 132                  | NA                  | NA                            | 132   |
| 1980              | 289  | -4                             | 431                         | 96                                  | 13            | 61               | 7               | 11                             | 45                | 105                  | 142                | R480  | 601                                     | R1,797             | 150                  | NA                  | NA                            | 150   |
| 1981              | 290  | -2                             | 422                         | 101                                 | 8             | 58               | 6               | 11                             | 47                | 83                   | 93                 | R408  | 597                                     | R1,715             | 150                  | 5                   | (s)                           | 156   |
| 1982              | 235  | -2                             | 364                         | 95                                  | 10            | 60               | 6               | 10                             | 48                | 81                   | 80                 | R390  | 529                                     | R1,515             | 142                  | 7                   | (s)                           | 149   |
| 1983              | 230  | -2                             | 347                         | 83                                  | 5             | 55               | 6               | 8                              | 48                | 61                   | 98                 | R362  | 549                                     | R1,486             | 159                  | 9                   | (s)                           | 168   |
| 1984              | 262  | -1                             | 380                         | 87                                  | 3             | 62               | 7               | 11                             | 50                | 68                   | 106                | R394  | 582                                     | R1,617             | 157                  | 12                  | (s)                           | 170   |
| 1985              | 256  | -2                             | 360                         | 81                                  | 3             | 58               | 6               | 15                             | 54                | 57                   | 93                 | R369  | 583                                     | R1,566             | 154                  | 14                  | (s)                           | 168   |
| 1986              | 245  | -2                             | 338                         | 84                                  | 2             | 56               | 6               | 15                             | 55                | 57                   | 98                 | R373  | 566                                     | R1,520             | 151                  | 16                  | (s)                           | 167   |
| 1987              | 248  | 1                              | 371                         | 83                                  | 2             | 53               | 7               | 15                             | 59                | 45                   | 106                | R369  | 587                                     | R1,575             | 148                  | 17                  | (s)                           | 165   |
| 1988              | 263  | 5                              | 389                         | 82                                  | 2             | 54               | 7               | 14                             | 61                | 42                   | 119                | R381  | 611                                     | R1,648             | 152                  | 19                  | (s)                           | 171   |
| 1989              | 259  | 3                              | 411                         | 83                                  | 2             | 49               | 7               | 14                             | 60                | 31                   | 118                | R365  | 638                                     | R1,677             | 149                  | 12                  | (s)                           | 161   |
| 1990              | 258  | 1                              | 432                         | 84                                  | 1             | 39               | 7               | 13                             | 64                | 31                   | 127                | R366  | R638                                    | R1,695             | 135                  | 12                  | (s)                           | 147   |
| 1991              | 244  | 1                              | 439                         | 79                                  | 1             | 39               | 6               | 14                             | 63                | 24                   | 117                | R342  | R627                                    | R1,653             | 132                  | 11                  | (s)                           | 143   |
| 1992              | 235  | 4                              | 456                         | 81                                  | 1             | 45               | 6               | 14                             | 70                | 28                   | 135                | R380  | R649                                    | R1,724             | 137                  | 10                  | (s)                           | 148   |
| 1993              | 233  | 3                              | 464                         | 81                                  | 1             | 43               | 6               | 13                             | 68                | 33                   | 114                | R360  | R655                                    | R1,715             | 139                  | 11                  | (s)                           | 150   |
| 1994              | 235  | 7                              | 465                         | 81                                  | 1             | 46               | 7               | 14                             | 67                | 31                   | 124                | R371  | R668                                    | R1,745             | 148                  | 11                  | (s)                           | 160   |
| 1995              | 233  | 7                              | 490                         | 82                                  | 1             | 45               | 7               | 14                             | 67                | 24                   | 114                | R355  | R659                                    | R1,743             | 155                  | 11                  | (s)                           | 166   |
| 1996              | 227  | 3                              | 506                         | 86                                  | 1             | 46               | 6               | 14                             | 70                | 24                   | 132                | R381  | R678                                    | R1,795             | 158                  | 12                  | (s)                           | 170   |
| 1997              | 224  | 5                              | 506                         | 88                                  | 1             | 48               | 7               | 15                             | 68                | 21                   | 138                | R386  | R694                                    | R1,815             | 162                  | 10                  | (s)                           | 172   |
| 1998              | 219  | 8                              | 495                         | 88                                  | 2             | 39               | 7               | 14                             | 77                | 16                   | 125                | R368  | R706                                    | R1,796             | 150                  | 10                  | (s)                           | 160   |
| 1999              | 208  | 7                              | 474                         | 86                                  | 1             | 48               | 7               | 11                             | 81                | 14                   | 130                | R378  | R704                                    | R1,772             | 152                  | 9                   | (s)                           | 161   |
| 2000              | 211  | 7                              | 481                         | 87                                  | 1             | 56               | 7               | 11                             | 74                | 17                   | 117                | R370  | R719                                    | R1,788             | 153                  | 8                   | (s)                           | 161   |
| 2001              | 204  | 3                              | 439                         | 95                                  | 2             | 49               | 6               | 21                             | 77                | 14                   | 132                | R395  | R667                                    | R1,709             | 135                  | 12                  | (s)                           | 147   |
| 2002              | 188  | 7                              | 449                         | 88                                  | 1             | 54               | 6               | 22                             | 76                | 13                   | 127                | R388  | R654                                    | R1,686             | 131                  | 13                  | (s)                           | 144   |
| 2003              | 190  | 6                              | 430                         | 83                                  | 2             | 50               | 6               | 23                             | 76                | 15                   | 140                | R394  | R672                                    | R1,692             | 128                  | 13                  | (s)                           | 141   |
| 2004              | 191  | 16                             | R431                        | 88                                  | 2             | 55               | 6               | 26                             | 82                | 17                   | 142                | R419  | R675                                    | R1,731             | 138                  | 12                  | (s)                           | 151   |
| 2005              | 183  | 5                              | 398                         | 92                                  | 3             | 51               | 6               | 25                             | 80                | 20                   | 141                | R417  | R673                                    | R1,675             | 136                  | 13                  | (s)                           | 150   |
| 2006              | 179  | 7                              | 394                         | 92                                  | 2             | 56               | 6               | 26                             | 82                | 16                   | 150                | R430  | R650                                    | R1,661             | 138                  | 12                  | 1                             | 151   |
| 2007              | 175  | 3                              | R406                        | 92                                  | 1             | 54               | 6               | 21                             | 80                | 13                   | 148                | R415  | R662                                    | R1,662             | 133                  | 13                  | 1                             | 146   |
| 2008              | 168  | 5                              | 407                         | 93                                  | (s)           | 42               | 6               | 17                             | 76                | 14                   | 130                | R377  | R642                                    | R1,598             | 126                  | 13                  | 1                             | 140   |
| 2009              | 131  | -3                             | 383                         | 80                                  | (s)           | 46               | 5               | 17                             | 73                | 7                    | 111                | 339   | R551                                    | R1,401             | 112                  | 14                  | 1                             | 127   |
| 2010 <sup>P</sup> | 151  | -1                             | 408                         | 84                                  | (s)           | 46               | 6               | 16                             | 62                | 8                    | 121                | 343   | 583                                     | 1,485              | 123                  | 15                  | 1                             | 139   |

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

<sup>2</sup> Carbon dioxide emissions from biomass energy consumption are excluded from total emissions in this table. See Note, "Accounting for Carbon Dioxide Emissions From Biomass Energy Combustion," at end of section.

<sup>3</sup> Natural gas, excluding supplemental gaseous fuels.

<sup>4</sup> Distillate fuel oil, excluding biodiesel.

<sup>5</sup> Liquefied petroleum gases.

<sup>6</sup> Finished motor gasoline, excluding fuel ethanol.

<sup>7</sup> Aviation gasoline blending components, crude oil, motor gasoline blending components, pentanes plus, petrochemical feedstocks, special naphthas, still gas, unfinished oils, waxes, and miscellaneous petroleum products.

<sup>8</sup> Emissions from energy consumption (for electricity and a small amount of useful thermal output) in the electric power sector are allocated to the end-use sectors in proportion to each sector's share of total electricity retail sales. See Tables 8.9 and 11.3e.

<sup>9</sup> Wood and wood-derived fuels.

<sup>10</sup> Municipal solid waste from biogenic sources, landfill gas, sludge waste, agricultural byproducts, and other biomass.

<sup>11</sup> Fuel ethanol minus denaturant.

R=Revised. P=Preliminary. NA=Not available. (s)=Less than 0.5 and greater than -0.5 million metric tons of carbon dioxide.

Notes: • Data are estimates for carbon dioxide emissions from energy consumption, including the nonfuel use of fossil fuels. • See "Carbon Dioxide" in Glossary. • Totals may not equal sum of components due to independent rounding.

Web Pages: • See <http://www.eia.gov/totalenergy/data/annual/#environment> for all data beginning in 1949. • For current data, see <http://www.eia.gov/totalenergy/data/monthly/#environment>. • For related information, see <http://www.eia.gov/environment/>.

Sources: • 1949-1972—U.S. Energy Information Administration (EIA) estimates based on data in *Annual Energy Review* Tables 2.1d, 5.14b, 8.9, 10.2b, and 11.3e. • 1973 forward—EIA, *Monthly Energy Review (MER)* (April 2011), Tables 12.4 and 12.7, and MER data system calculations.