

**Table 10.2c Renewable Energy Consumption: Transportation and Electric Power Sectors**  
(Trillion Btu)

|                    | Transportation Sector       |                         |                                    |                             |       | Electric Power Sector <sup>a</sup> |                          |                    |                   |                   |                    |       |       |
|--------------------|-----------------------------|-------------------------|------------------------------------|-----------------------------|-------|------------------------------------|--------------------------|--------------------|-------------------|-------------------|--------------------|-------|-------|
|                    | Biomass                     |                         |                                    |                             |       | Hydro-electric Power <sup>g</sup>  | Geo-thermal <sup>h</sup> | Solar <sup>i</sup> | Wind <sup>j</sup> | Biomass           |                    |       | Total |
|                    | Fuel Ethanol <sup>b,c</sup> | Bio-diesel <sup>d</sup> | Renewable Diesel Fuel <sup>e</sup> | Other Biofuels <sup>f</sup> | Total |                                    |                          |                    |                   | Wood <sup>k</sup> | Waste <sup>l</sup> | Total |       |
| 1950 Total         | NA                          | NA                      | NA                                 | NA                          | NA    | 327                                | NA                       | NA                 | NA                | 5                 | NA                 | 5     | 333   |
| 1955 Total         | NA                          | NA                      | NA                                 | NA                          | NA    | 385                                | NA                       | NA                 | NA                | 3                 | NA                 | 3     | 389   |
| 1960 Total         | NA                          | NA                      | NA                                 | NA                          | NA    | 498                                | (s)                      | NA                 | NA                | 2                 | NA                 | 2     | 499   |
| 1965 Total         | NA                          | NA                      | NA                                 | NA                          | NA    | 661                                | 1                        | NA                 | NA                | 3                 | NA                 | 3     | 665   |
| 1970 Total         | NA                          | NA                      | NA                                 | NA                          | NA    | 845                                | 2                        | NA                 | NA                | 1                 | 2                  | 4     | 851   |
| 1975 Total         | NA                          | NA                      | NA                                 | NA                          | NA    | 1,024                              | 11                       | NA                 | NA                | (s)               | 2                  | 2     | 1,037 |
| 1980 Total         | NA                          | NA                      | NA                                 | NA                          | NA    | 942                                | 17                       | NA                 | NA                | 3                 | 2                  | 4     | 964   |
| 1985 Total         | 50                          | NA                      | NA                                 | NA                          | 50    | 959                                | 32                       | (s)                | (s)               | 8                 | 7                  | 14    | 1,006 |
| 1990 Total         | 60                          | NA                      | NA                                 | NA                          | 60    | 989                                | 53                       | 1                  | 10                | 129               | 188                | 317   | 1,369 |
| 1995 Total         | 112                         | NA                      | NA                                 | NA                          | 112   | 1,042                              | 46                       | 2                  | 11                | 125               | 296                | 422   | 1,522 |
| 2000 Total         | 135                         | NA                      | NA                                 | NA                          | 135   | 926                                | 48                       | 2                  | 19                | 134               | 318                | 453   | 1,447 |
| 2005 Total         | 327                         | 12                      | NA                                 | NA                          | 339   | 911                                | 50                       | 2                  | 61                | 185               | 221                | 406   | 1,430 |
| 2010 Total         | 1,041                       | 33                      | NA                                 | NA                          | 1,075 | 882                                | 52                       | 4                  | 323               | 196               | 264                | 459   | 1,720 |
| 2011 Total         | 1,045                       | 113                     | 8                                  | NA                          | 1,166 | 1,083                              | 52                       | 6                  | 410               | 182               | 255                | 437   | 1,988 |
| 2012 Total         | 1,045                       | 115                     | 10                                 | NA                          | 1,169 | 934                                | 53                       | 14                 | 480               | 190               | 262                | 453   | 1,935 |
| 2013 Total         | 1,072                       | 182                     | 39                                 | NA                          | 1,292 | 904                                | 54                       | 30                 | 572               | 207               | 262                | 470   | 2,030 |
| 2014 Total         | 1,093                       | 181                     | 38                                 | 2                           | 1,314 | 880                                | 54                       | 59                 | 619               | 251               | 279                | 530   | 2,143 |
| 2015 Total         | <sup>c</sup> 1,110          | 191                     | 48                                 | 2                           | 1,351 | 845                                | 54                       | 83                 | 650               | 244               | 281                | 525   | 2,158 |
| 2016 Total         | 1,143                       | 266                     | 57                                 | 2                           | 1,469 | 909                                | 54                       | 121                | 774               | 224               | 281                | 505   | 2,363 |
| 2017 Total         | 1,156                       | 253                     | 62                                 | 3                           | 1,474 | 1,019                              | 54                       | 180                | 867               | 229               | 280                | 510   | 2,630 |
| 2018 Total         | 1,152                       | 243                     | 57                                 | 3                           | 1,456 | 993                                | 54                       | 216                | 929               | 221               | 275                | 496   | 2,689 |
| 2019 Total         | 1,162                       | 231                     | 99                                 | 4                           | 1,497 | 978                                | 51                       | 243                | 1,009             | 201               | 248                | 448   | 2,729 |
| 2020 Total         | 1,004                       | 239                     | 107                                | 4                           | 1,355 | 969                                | 53                       | 302                | 1,150             | 185               | 242                | 428   | 2,902 |
| 2021 Total         | 1,110                       | 218                     | 158                                | 10                          | 1,496 | 854                                | 53                       | 391                | 1,289             | 197               | 229                | 426   | 3,014 |
| 2022 January       | 86                          | 14                      | 16                                 | 1                           | 118   | 82                                 | 5                        | 27                 | 128               | 18                | 16                 | 34    | 275   |
| February           | 81                          | 15                      | 14                                 | 1                           | 111   | 72                                 | 4                        | 31                 | 128               | 17                | 15                 | 32    | 267   |
| March              | 96                          | 18                      | 18                                 | 1                           | 133   | 83                                 | 4                        | 40                 | 147               | 16                | 16                 | 32    | 306   |
| April              | 89                          | 19                      | 17                                 | 2                           | 127   | 68                                 | 4                        | 45                 | 157               | 14                | 14                 | 28    | 303   |
| May                | 97                          | 17                      | 18                                 | 2                           | 134   | 79                                 | 5                        | 51                 | 144               | 15                | 14                 | 29    | 308   |
| June               | 96                          | 19                      | 22                                 | 2                           | 139   | 88                                 | 4                        | 54                 | 115               | 17                | 15                 | 31    | 294   |
| July               | 94                          | 18                      | 18                                 | 2                           | 132   | 84                                 | 5                        | 53                 | 101               | 19                | 15                 | 34    | 276   |
| August             | 99                          | 18                      | 21                                 | 3                           | 141   | 72                                 | 5                        | 49                 | 84                | 19                | 15                 | 33    | 243   |
| September          | 90                          | 17                      | 19                                 | 2                           | 128   | 58                                 | 5                        | 45                 | 93                | 16                | 14                 | 30    | 231   |
| October            | 98                          | 19                      | 22                                 | 3                           | 142   | 49                                 | 4                        | 40                 | 112               | 14                | 14                 | 29    | 234   |
| November           | 94                          | 20                      | 18                                 | 2                           | 135   | 61                                 | 5                        | 28                 | 140               | 15                | 14                 | 30    | 264   |
| December           | 92                          | 17                      | 22                                 | 3                           | 134   | 69                                 | 5                        | 23                 | 132               | 17                | 15                 | 32    | 261   |
| Total              | 1,111                       | 212                     | 225                                | 25                          | 1,573 | 865                                | 55                       | 487                | 1,481             | 198               | 176                | 374   | 3,263 |
| 2023 January       | 91                          | 18                      | 25                                 | 3                           | 137   | 76                                 | 5                        | 27                 | 134               | 16                | 15                 | 31    | 273   |
| February           | 82                          | 17                      | 24                                 | 2                           | 124   | 63                                 | 4                        | 31                 | 144               | 13                | 14                 | 27    | 270   |
| March              | 96                          | 20                      | 28                                 | 3                           | 148   | 69                                 | 5                        | 41                 | 152               | 14                | 14                 | 29    | 295   |
| April              | 90                          | 18                      | 28                                 | 2                           | 138   | 59                                 | 5                        | 50                 | 147               | 11                | 13                 | 24    | 285   |
| May                | 97                          | 23                      | 38                                 | 3                           | 161   | 93                                 | 5                        | 57                 | 109               | 14                | 14                 | 28    | 293   |
| June               | 97                          | 23                      | 35                                 | 3                           | 158   | 66                                 | 4                        | 60                 | 94                | 15                | 13                 | 28    | 252   |
| July               | 95                          | 21                      | 29                                 | 3                           | 148   | 72                                 | 4                        | 64                 | 95                | 16                | 14                 | 30    | 266   |
| August             | 101                         | 22                      | 37                                 | 2                           | 162   | 72                                 | 5                        | 60                 | 97                | 16                | 14                 | 30    | 264   |
| September          | 91                          | 23                      | 34                                 | 4                           | 152   | 56                                 | 5                        | 53                 | 96                | 13                | 14                 | 27    | 236   |
| October            | 100                         | 22                      | 33                                 | 4                           | 158   | 61                                 | 5                        | 48                 | 124               | 10                | 13                 | 23    | 262   |
| November           | 94                          | 21                      | 26                                 | 3                           | 145   | 61                                 | 5                        | 35                 | 126               | 12                | 13                 | 24    | 252   |
| December           | 94                          | 20                      | 38                                 | 4                           | 156   | 66                                 | 5                        | 31                 | 131               | 12                | 15                 | 27    | 260   |
| Total              | 1,128                       | 247                     | 375                                | 37                          | 1,788 | 814                                | 56                       | 558                | 1,450             | 162               | 167                | 329   | 3,207 |
| 2024 January       | 86                          | 20                      | 31                                 | 3                           | 140   | 72                                 | 5                        | 33                 | 119               | 15                | 14                 | 29    | 258   |
| February           | 87                          | 21                      | 37                                 | 3                           | 149   | 67                                 | 4                        | 42                 | 142               | 11                | 14                 | 25    | 280   |
| March              | 94                          | 20                      | 39                                 | 3                           | 156   | 78                                 | 4                        | 53                 | 156               | 12                | 14                 | 26    | 318   |
| April              | 86                          | 22                      | 37                                 | 4                           | 150   | 65                                 | 4                        | 64                 | 163               | 11                | 12                 | 23    | 320   |
| May                | 103                         | 21                      | 38                                 | 2                           | 165   | 75                                 | 4                        | 75                 | 133               | 13                | 13                 | 26    | 312   |
| 5-Month Total      | 457                         | 105                     | 182                                | 16                          | 759   | 356                                | 22                       | 267                | 713               | 62                | 67                 | 130   | 1,488 |
| 2023 5-Month Total | 457                         | 96                      | 143                                | 14                          | 709   | 360                                | 24                       | 207                | 686               | 69                | 71                 | 140   | 1,416 |
| 2022 5-Month Total | 448                         | 84                      | 83                                 | 8                           | 623   | 385                                | 23                       | 193                | 704               | 80                | 75                 | 155   | 1,460 |

<sup>a</sup> 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. Through 1988, data are for electric utilities only; beginning in 1989, data are for electric utilities and independent power producers.

<sup>b</sup> The fuel ethanol (minus denaturant) portion of motor fuels, such as E10 and E85, consumed by the transportation sector.

<sup>c</sup> There is a discontinuity in this time series between 2014 and 2015 due to a change in the method for allocating motor gasoline consumption to the end-use sectors. Beginning in 2015, the commercial and industrial sector shares of fuel ethanol consumption are larger than in 2014, while the transportation sector share is smaller.

<sup>d</sup> "Biodiesel" is primarily fatty acid methyl esters (FAME). See "Biodiesel" in Glossary. Although there is use of biodiesel in other sectors, all consumption is assigned to the transportation sector.

<sup>e</sup> "Renewable diesel fuel," which is commonly called "non-ester renewable diesel" and "green diesel," is chemically similar to petroleum diesel fuel. Although there is use of renewable diesel fuel in other sectors, all consumption is assigned to the transportation sector.

<sup>f</sup> Renewable heating oil, renewable jet fuel (sustainable aviation fuel), renewable naphtha and gasoline, biobutanol, and other biofuels and biointermediates. Although there is use of these biofuels in other sectors, all consumption is assigned to the transportation sector.

<sup>g</sup> Conventional hydroelectricity net generation (converted to Btu by multiplying

by the heat content of electricity in Table A6).

<sup>h</sup> Geothermal electricity net generation (converted to Btu by multiplying by the heat content of electricity in Table A6).

<sup>i</sup> Solar photovoltaic (PV) and solar thermal electricity net generation in the electric power sector (converted to Btu by multiplying by the heat content of electricity in Table A6). See Table 10.5.

<sup>j</sup> Wind electricity net generation (converted to Btu by multiplying by the heat content of electricity in Table A6).

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

<sup>l</sup> Municipal solid waste from biogenic sources, landfill gas, sludge waste, agricultural byproducts, and other biomass. Through 2000, also includes non-renewable waste (municipal solid waste from non-biogenic sources, and tire-derived fuels).

NA=Not available. (s)=Less than 0.5 trillion Btu.

Notes: • Transportation sector data are estimates, except for biodiesel beginning in 2012, and renewable diesel fuel and other biofuels beginning in 2021.

• 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/#renewable> (Excel and CSV files) for all available annual data beginning in 1949 and monthly data beginning in 1973.

Sources: See end of section.