

**Table 10.2a Renewable Energy Consumption: Residential and Commercial Sectors, Selected Years, 1949-2010**  
(Trillion Btu)

| Year              | Residential Sector       |                       |                   |       | Commercial Sector <sup>1</sup>    |                          |                       |                   |                   |                    |                           |       |      | Total |
|-------------------|--------------------------|-----------------------|-------------------|-------|-----------------------------------|--------------------------|-----------------------|-------------------|-------------------|--------------------|---------------------------|-------|------|-------|
|                   | Geo-thermal <sup>2</sup> | Solar/PV <sup>3</sup> | Biomass           | Total | Hydro-electric Power <sup>5</sup> | Geo-thermal <sup>2</sup> | Solar/PV <sup>6</sup> | Wind <sup>7</sup> | Biomass           |                    |                           |       |      |       |
|                   |                          |                       | Wood <sup>4</sup> |       |                                   |                          |                       |                   | Wood <sup>4</sup> | Waste <sup>8</sup> | Fuel Ethanol <sup>9</sup> | Total |      |       |
| 1949              | NA                       | NA                    | 1,055             | 1,055 | NA                                | NA                       | NA                    | NA                | 20                | NA                 | NA                        | NA    | 20   | 20    |
| 1950              | NA                       | NA                    | 1,006             | 1,006 | NA                                | NA                       | NA                    | NA                | 19                | NA                 | NA                        | NA    | 19   | 19    |
| 1955              | NA                       | NA                    | 775               | 775   | NA                                | NA                       | NA                    | NA                | 15                | NA                 | NA                        | NA    | 15   | 15    |
| 1960              | NA                       | NA                    | 627               | 627   | NA                                | NA                       | NA                    | NA                | 12                | NA                 | NA                        | NA    | 12   | 12    |
| 1965              | NA                       | NA                    | 468               | 468   | NA                                | NA                       | NA                    | NA                | 9                 | NA                 | NA                        | NA    | 9    | 9     |
| 1970              | NA                       | NA                    | 401               | 401   | NA                                | NA                       | NA                    | NA                | 8                 | NA                 | NA                        | NA    | 8    | 8     |
| 1975              | NA                       | NA                    | 425               | 425   | NA                                | NA                       | NA                    | NA                | 8                 | NA                 | NA                        | NA    | 8    | 8     |
| 1976              | NA                       | NA                    | 482               | 482   | NA                                | NA                       | NA                    | NA                | 9                 | NA                 | NA                        | NA    | 9    | 9     |
| 1977              | NA                       | NA                    | 542               | 542   | NA                                | NA                       | NA                    | NA                | 10                | NA                 | NA                        | NA    | 10   | 10    |
| 1978              | NA                       | NA                    | 622               | 622   | NA                                | NA                       | NA                    | NA                | 12                | NA                 | NA                        | NA    | 12   | 12    |
| 1979              | NA                       | NA                    | 728               | 728   | NA                                | NA                       | NA                    | NA                | 14                | NA                 | NA                        | NA    | 14   | 14    |
| 1980              | NA                       | NA                    | 850               | 850   | NA                                | NA                       | NA                    | NA                | 21                | NA                 | NA                        | NA    | 21   | 21    |
| 1981              | NA                       | NA                    | 870               | 870   | NA                                | NA                       | NA                    | NA                | 21                | NA                 | (s)                       | NA    | 21   | 21    |
| 1982              | NA                       | NA                    | 970               | 970   | NA                                | NA                       | NA                    | NA                | 22                | NA                 | (s)                       | NA    | 22   | 22    |
| 1983              | NA                       | NA                    | 970               | 970   | NA                                | NA                       | NA                    | NA                | 22                | NA                 | (s)                       | NA    | 22   | 22    |
| 1984              | NA                       | NA                    | 980               | 980   | NA                                | NA                       | NA                    | NA                | 22                | NA                 | (s)                       | NA    | 22   | 22    |
| 1985              | NA                       | NA                    | 1,010             | 1,010 | NA                                | NA                       | NA                    | NA                | 24                | NA                 | (s)                       | NA    | 24   | 24    |
| 1986              | NA                       | NA                    | 920               | 920   | NA                                | NA                       | NA                    | NA                | 27                | NA                 | (s)                       | NA    | 27   | 27    |
| 1987              | NA                       | NA                    | 850               | 850   | NA                                | NA                       | NA                    | NA                | 29                | NA                 | 1                         | NA    | 30   | 30    |
| 1988              | NA                       | NA                    | 910               | 910   | NA                                | NA                       | NA                    | NA                | 32                | NA                 | 1                         | NA    | 33   | 33    |
| 1989              | 5                        | R52                   | 920               | R977  | 1                                 | 3                        | -                     | -                 | 76                | 22                 | 1                         | NA    | 99   | 102   |
| 1990              | 6                        | R56                   | 580               | 641   | 1                                 | 3                        | -                     | -                 | 66                | 28                 | (s)                       | NA    | 94   | 98    |
| 1991              | 6                        | R57                   | 610               | R673  | 1                                 | 3                        | -                     | -                 | 68                | 26                 | (s)                       | NA    | 95   | 100   |
| 1992              | 6                        | R59                   | 640               | 706   | 1                                 | 3                        | -                     | -                 | 72                | 32                 | (s)                       | NA    | 105  | 109   |
| 1993              | 7                        | R61                   | 550               | 618   | 1                                 | 3                        | -                     | -                 | 76                | 33                 | (s)                       | NA    | 109  | 114   |
| 1994              | 6                        | R63                   | 520               | R589  | 1                                 | 4                        | -                     | -                 | 72                | 35                 | (s)                       | NA    | 106  | 112   |
| 1995              | 7                        | R64                   | 520               | 591   | 1                                 | 5                        | -                     | -                 | 72                | 40                 | (s)                       | NA    | 113  | 118   |
| 1996              | 7                        | R65                   | 540               | 612   | 1                                 | 5                        | -                     | -                 | 76                | 53                 | (s)                       | NA    | 129  | 135   |
| 1997              | 8                        | R64                   | 430               | R502  | 1                                 | 6                        | -                     | -                 | 73                | 58                 | (s)                       | NA    | 131  | 138   |
| 1998              | 8                        | R64                   | 380               | 452   | 1                                 | 7                        | -                     | -                 | 64                | 54                 | (s)                       | NA    | 118  | 127   |
| 1999              | 9                        | R63                   | 390               | R461  | 1                                 | 7                        | -                     | -                 | 67                | 54                 | (s)                       | NA    | 121  | 129   |
| 2000              | 9                        | R60                   | 420               | R489  | 1                                 | 8                        | -                     | -                 | 71                | 47                 | (s)                       | NA    | 119  | 128   |
| 2001              | 9                        | R59                   | 370               | R438  | 1                                 | 8                        | -                     | -                 | 67                | 25                 | (s)                       | NA    | 92   | 101   |
| 2002              | 10                       | R57                   | 380               | R448  | (s)                               | 9                        | -                     | -                 | 69                | 26                 | (s)                       | NA    | 95   | 104   |
| 2003              | 13                       | R57                   | 400               | R470  | 1                                 | 11                       | -                     | -                 | 71                | 29                 | 1                         | NA    | 101  | 113   |
| 2004              | 14                       | R57                   | 410               | R481  | 1                                 | 12                       | -                     | -                 | 70                | 34                 | 1                         | NA    | 105  | 118   |
| 2005              | 16                       | R58                   | 430               | R504  | 1                                 | 14                       | -                     | -                 | 70                | 34                 | 1                         | NA    | 105  | 119   |
| 2006              | 18                       | R63                   | 390               | R472  | 1                                 | 14                       | -                     | -                 | 65                | 36                 | 1                         | NA    | 102  | 117   |
| 2007              | 22                       | R70                   | 430               | R522  | 1                                 | 14                       | -                     | -                 | 69                | 31                 | 2                         | NA    | 102  | 118   |
| 2008              | 26                       | R80                   | 450               | R556  | 1                                 | 15                       | (s)                   | -                 | 73                | 34                 | 2                         | NA    | 109  | 125   |
| 2009              | 33                       | R89                   | 430               | R552  | 1                                 | 17                       | (s)                   | (s)               | 72                | R36                | R3                        | NA    | R112 | R129  |
| 2010 <sup>P</sup> | 37                       | 97                    | 420               | 554   | 1                                 | 19                       | (s)                   | (s)               | 70                | 34                 | 3                         | NA    | 108  | 127   |

<sup>1</sup> Commercial sector, including commercial combined-heat-and-power (CHP) and commercial electricity-only plants. See Note 2, "Classification of Power Plants Into Energy-Use Sectors," at end of Section 8.

<sup>2</sup> Geothermal heat pump and direct use energy.

<sup>3</sup> Solar thermal direct use energy, and photovoltaic (PV) electricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6). Includes small amounts of distributed solar thermal and PV energy used in the commercial, industrial, and electric power sectors.

<sup>4</sup> Wood and wood-derived fuels.

<sup>5</sup> Conventional hydroelectricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6).

<sup>6</sup> Photovoltaic (PV) electricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6) at commercial plants with capacity of 1 megawatt or greater.

<sup>7</sup> Wind electricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6).

<sup>8</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).

<sup>9</sup> The fuel ethanol (minus denaturant) portion of motor fuels, such as E10, consumed by the commercial sector.

R=Revised. P=Preliminary. NA=Not available. --=No data reported. (s)=Less than 0.5 trillion Btu.

Notes: • Data are estimates, except for commercial sector solar/PV, hydroelectric power, wind, and waste. • See Tables 8.2a-8.2d and 8.3a-8.3c for electricity net generation and useful thermal output from renewable energy sources; Tables 8.4a-8.4c, 8.5a-8.5d, 8.6a-8.6c, and 8.7a-8.7c for renewable energy consumption for electricity generation and useful thermal output; and Tables 8.11a-8.11d for renewable energy electric net summer capacity. • Totals may not equal sum of components due to independent rounding.

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

Sources: See end of section.