

Table 10.2a Renewable Energy Consumption: Residential and Commercial Sectors
(Trillion Btu)

| | Residential Sector | | | | Commercial Sector ^a | | | | | | | | |
|--------------------|--------------------------|--------------------|-------------------|-------|-----------------------------------|--------------------------|--------------------|-------------------|-------------------|--------------------|-----------------------------|-------|-------|
| | Geo-thermal ^b | Solar ^c | Biomass | Total | Hydro-electric Power ^e | Geo-thermal ^f | Solar ^g | Wind ^h | Biomass | | | | Total |
| | | | Wood ^d | | | | | | Wood ^d | Waste ⁱ | Fuel Ethanol ^{j,k} | Total | |
| 1950 Total | NA | NA | 1,006 | 1,006 | NA | NA | NA | NA | 19 | NA | NA | 19 | 19 |
| 1955 Total | NA | NA | 775 | 775 | NA | NA | NA | NA | 15 | NA | NA | 15 | 15 |
| 1960 Total | NA | NA | 627 | 627 | NA | NA | NA | NA | 12 | NA | NA | 12 | 12 |
| 1965 Total | NA | NA | 468 | 468 | NA | NA | NA | NA | 9 | NA | NA | 9 | 9 |
| 1970 Total | NA | NA | 401 | 401 | NA | NA | NA | NA | 8 | NA | NA | 8 | 8 |
| 1975 Total | NA | NA | 425 | 425 | NA | NA | NA | NA | 8 | NA | NA | 8 | 8 |
| 1980 Total | NA | NA | 850 | 850 | NA | NA | NA | NA | 21 | NA | NA | 21 | 21 |
| 1985 Total | NA | NA | 1,010 | 1,010 | NA | NA | NA | NA | 24 | NA | (s) | 24 | 24 |
| 1990 Total | 6 | 55 | 580 | 640 | (s) | 3 | (s) | — | 66 | 28 | (s) | 94 | 97 |
| 1995 Total | 7 | 63 | 520 | 589 | (s) | 5 | (s) | — | 72 | 40 | (s) | 113 | 118 |
| 2000 Total | 9 | 57 | 420 | 486 | (s) | 8 | (s) | — | 71 | 47 | (s) | 119 | 127 |
| 2005 Total | 16 | 49 | 430 | 495 | (s) | 14 | 1 | — | 70 | 34 | 1 | 105 | 120 |
| 2010 Total | 37 | 59 | 541 | 636 | (s) | 19 | 4 | (s) | 72 | 36 | 3 | 111 | 134 |
| 2011 Total | 40 | 62 | 524 | 626 | (s) | 20 | 7 | (s) | 69 | 43 | 3 | 115 | 141 |
| 2012 Total | 40 | 66 | 438 | 544 | (s) | 20 | 11 | (s) | 61 | 45 | 3 | 108 | 139 |
| 2013 Total | 40 | 72 | 572 | 683 | (s) | 20 | 15 | (s) | 70 | 47 | 3 | 120 | 155 |
| 2014 Total | 40 | 79 | 579 | 697 | (s) | 20 | 19 | (s) | 76 | 47 | 4 | 127 | 166 |
| 2015 Total | 40 | 87 | 513 | 639 | (s) | 20 | 21 | (s) | 79 | 47 | ^k 26 | 152 | 193 |
| 2016 Total | 40 | 100 | 445 | 584 | 1 | 20 | 23 | (s) | 84 | 48 | 26 | 158 | 201 |
| 2017 Total | 40 | 113 | 430 | 582 | 1 | 20 | 28 | (s) | 84 | 48 | 25 | 156 | 205 |
| 2018 Total | 40 | 123 | 525 | 688 | 1 | 20 | 35 | 1 | 84 | 47 | 25 | 156 | 213 |
| 2019 Total | 40 | 136 | 546 | 721 | 1 | 21 | 40 | 1 | 84 | 39 | 26 | 149 | 211 |
| 2020 Total | 40 | 151 | 345 | 536 | 1 | 21 | 46 | 1 | 83 | 38 | 26 | 147 | 215 |
| 2021 Total | 40 | 169 | 344 | 553 | 1 | 21 | 54 | 1 | 83 | 39 | 27 | 149 | 225 |
| 2022 January | 3 | 11 | 36 | 50 | (s) | 2 | 4 | (s) | 7 | 6 | 2 | 16 | 21 |
| February | 3 | 12 | 32 | 47 | (s) | 2 | 4 | (s) | 6 | 6 | 2 | 15 | 20 |
| March | 3 | 17 | 36 | 56 | (s) | 2 | 5 | (s) | 7 | 6 | 3 | 16 | 23 |
| April | 3 | 18 | 35 | 56 | (s) | 2 | 6 | (s) | 7 | 6 | 3 | 15 | 23 |
| May | 3 | 20 | 36 | 60 | (s) | 2 | 6 | (s) | 7 | 6 | 3 | 16 | 24 |
| June | 3 | 20 | 35 | 58 | (s) | 2 | 6 | (s) | 7 | 6 | 3 | 16 | 24 |
| July | 3 | 21 | 36 | 60 | (s) | 2 | 7 | (s) | 7 | 7 | 3 | 16 | 25 |
| August | 3 | 20 | 36 | 59 | (s) | 2 | 6 | (s) | 7 | 6 | 3 | 16 | 25 |
| September | 3 | 18 | 35 | 56 | (s) | 2 | 6 | (s) | 7 | 6 | 3 | 15 | 23 |
| October | 3 | 17 | 36 | 56 | (s) | 2 | 5 | (s) | 7 | 6 | 3 | 16 | 23 |
| November | 3 | 13 | 35 | 51 | (s) | 2 | 4 | (s) | 7 | 6 | 3 | 16 | 21 |
| December | 3 | 12 | 36 | 52 | (s) | 2 | 4 | (s) | 7 | 6 | 3 | 16 | 21 |
| Total | 40 | 200 | 422 | 662 | 1 | 20 | 63 | 1 | 83 | 75 | 32 | 190 | 274 |
| 2023 January | 3 | 13 | 38 | 54 | (s) | 2 | 4 | (s) | 7 | 6 | 3 | 16 | 21 |
| February | 3 | 14 | 35 | 51 | (s) | 2 | 4 | (s) | 6 | 5 | 2 | 14 | 20 |
| March | 3 | 19 | 38 | 60 | NM | 2 | 6 | (s) | 7 | 6 | 3 | 15 | 23 |
| April | 3 | 21 | 37 | 62 | NM | 2 | 6 | (s) | 7 | 6 | 3 | 15 | 23 |
| May | 3 | 24 | 38 | 66 | NM | 2 | 7 | (s) | 7 | 6 | 3 | 15 | 24 |
| June | 3 | 24 | 37 | 64 | NM | 2 | 7 | (s) | 7 | 6 | 3 | 15 | 24 |
| July | 3 | 25 | 38 | 66 | NM | 2 | 7 | (s) | 7 | 6 | 3 | 16 | 25 |
| August | 3 | 24 | 38 | 66 | NM | 2 | 7 | (s) | 7 | 6 | 3 | 16 | 25 |
| September | 3 | 21 | 37 | 61 | NM | 2 | 6 | (s) | 7 | 6 | 3 | 15 | 23 |
| October | 3 | 20 | 38 | 61 | NM | 2 | 5 | (s) | 7 | 6 | 3 | 16 | 23 |
| November | 3 | 16 | 37 | 56 | (s) | 2 | 4 | (s) | 7 | 6 | 3 | 15 | 21 |
| December | 3 | 15 | 38 | 56 | NM | 2 | 4 | (s) | 7 | 6 | 3 | 16 | 22 |
| Total | 40 | 235 | 450 | 725 | 1 | 20 | 69 | 1 | 82 | 71 | 32 | 185 | 275 |
| 2024 January | 3 | 15 | 34 | 52 | (s) | 2 | 4 | (s) | 7 | 6 | 2 | 16 | 22 |
| February | 3 | 17 | 32 | 52 | NM | 2 | 5 | (s) | 6 | 6 | 2 | 15 | 21 |
| March | 3 | 22 | 34 | 59 | NM | 2 | 7 | (s) | 7 | 6 | 3 | 15 | 23 |
| April | 3 | 25 | 33 | 61 | NM | 2 | 7 | (s) | 7 | 6 | 2 | 15 | 23 |
| May | 3 | 27 | 34 | 64 | NM | 2 | 8 | (s) | 7 | 6 | 3 | 16 | 25 |
| 5-Month Total | 16 | 105 | 167 | 289 | (s) | 8 | 31 | (s) | 34 | 29 | 13 | 76 | 115 |
| 2023 5-Month Total | 16 | 91 | 186 | 293 | (s) | 8 | 28 | (s) | 34 | 29 | 13 | 75 | 112 |
| 2022 5-Month Total | 16 | 78 | 175 | 269 | (s) | 8 | 25 | (s) | 34 | 31 | 13 | 78 | 112 |

^a 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 7.

^b Geothermal heat pump and direct use energy.
^c Small-scale solar photovoltaic (PV) electricity generation in the residential sector (converted to Btu by multiplying by the heat content of electricity in Table A6) and small-scale solar thermal energy in the residential, commercial, and industrial sectors. See Table 10.5.
^d Wood and wood-derived fuels.
^e Conventional hydroelectricity net generation (converted to Btu by multiplying by the heat content of electricity in Table A6).
^f Geothermal heat pump and direct use energy. Beginning in December 2018, also includes geothermal electricity net generation (converted to Btu by multiplying by the heat content of electricity in Table A6).
^g Solar photovoltaic (PV) electricity net generation in the commercial sector (converted to Btu by multiplying by the heat content of electricity in Table A6), both utility-scale and small-scale. See Table 10.5.
^h Wind electricity net generation (converted to Btu by multiplying by the heat content of electricity in Table A6).
ⁱ 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).

^j The fuel ethanol (minus denaturant) portion of motor fuels, such as E10, consumed by the commercial sector.

^k 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.

NA=Not available. NM=Not meaningful. —=No data reported. (s)=Less than 0.5 trillion Btu.

Notes: • Residential sector data are estimates. Commercial sector data are estimates, except for hydroelectric power, wind, and biomass waste. • 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.