

Table 1.3 Renewable Energy Consumption for Electricity Generation by Energy Use Sector and Energy Source, 2004 - 2008

| Sector and Source | 2004 | 2005 | 2006 | 2007 | 2008 |
|-------------------------------------|-------|-------|-------|-------|-------|
| Total | 3.723 | 3.781 | 4.035 | 3.699 | 3.986 |
| Biomass | 0.574 | 0.585 | 0.591 | 0.598 | 0.606 |
| Waste | 0.230 | 0.230 | 0.241 | 0.245 | 0.267 |
| Landfill Gas | 0.069 | 0.068 | 0.076 | 0.080 | 0.094 |
| MSW Biogenic ¹ | 0.142 | 0.144 | 0.147 | 0.146 | 0.148 |
| Other Biomass ² | 0.019 | 0.018 | 0.018 | 0.019 | 0.024 |
| Wood and Derived Fuels ³ | 0.344 | 0.355 | 0.350 | 0.353 | 0.339 |
| Geothermal | 0.311 | 0.309 | 0.306 | 0.308 | 0.314 |
| Hydroelectric Conventional | 2.690 | 2.703 | 2.869 | 2.446 | 2.512 |
| Solar Thermal/PV | 0.006 | 0.006 | 0.005 | 0.006 | 0.009 |
| Wind | 0.142 | 0.178 | 0.264 | 0.341 | 0.546 |
| Commercial | 0.021 | 0.021 | 0.022 | 0.020 | 0.021 |
| Biomass | 0.019 | 0.020 | 0.021 | 0.020 | 0.021 |
| Waste | 0.019 | 0.020 | 0.021 | 0.019 | 0.020 |
| Landfill Gas | 0.002 | 0.002 | 0.003 | 0.002 | 0.003 |
| MSW Biogenic ¹ | 0.013 | 0.013 | 0.013 | 0.013 | 0.014 |
| Other Biomass ² | 0.004 | 0.005 | 0.004 | 0.004 | 0.004 |
| Wood and Derived Fuels | * | * | * | * | * |
| Geothermal | - | - | - | - | - |
| Hydroelectric Conventional | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 |
| Solar Thermal/PV | - | - | - | - | * |
| Wind | - | - | - | - | - |
| Industrial | 0.231 | 0.226 | 0.219 | 0.208 | 0.200 |
| Biomass | 0.199 | 0.194 | 0.190 | 0.193 | 0.184 |
| Waste | 0.005 | 0.005 | 0.003 | 0.004 | 0.005 |
| Landfill Gas | 0.001 | 0.001 | * | * | * |
| MSW Biogenic ¹ | * | * | * | 0.001 | - |
| Other Biomass ² | 0.004 | 0.003 | 0.003 | 0.003 | 0.004 |
| Wood and Derived Fuels ³ | 0.194 | 0.189 | 0.187 | 0.188 | 0.179 |
| Geothermal | - | - | - | - | - |
| Hydroelectric Conventional | 0.033 | 0.032 | 0.029 | 0.016 | 0.017 |
| Solar Thermal/PV | - | - | - | - | - |
| Wind | - | - | - | - | - |
| Electric Power⁴ | 3.471 | 3.534 | 3.794 | 3.470 | 3.764 |
| Biomass | 0.356 | 0.371 | 0.379 | 0.386 | 0.401 |
| Waste | 0.206 | 0.205 | 0.216 | 0.221 | 0.242 |
| Landfill Gas | 0.066 | 0.064 | 0.072 | 0.077 | 0.091 |
| MSW Biogenic ¹ | 0.129 | 0.131 | 0.134 | 0.132 | 0.135 |
| Other Biomass ² | 0.011 | 0.010 | 0.010 | 0.012 | 0.016 |
| Wood and Derived Fuels ³ | 0.150 | 0.166 | 0.163 | 0.165 | 0.159 |
| Geothermal | 0.311 | 0.309 | 0.306 | 0.308 | 0.314 |
| Hydroelectric Conventional | 2.656 | 2.670 | 2.839 | 2.430 | 2.495 |
| Solar Thermal/PV | 0.006 | 0.006 | 0.005 | 0.006 | 0.009 |
| Wind | 0.142 | 0.178 | 0.264 | 0.341 | 0.546 |

¹Includes paper and paper board, wood, food, leather, textiles and yard trimmings.

²Agriculture byproducts/crops, sludge waste, and other biomass solids, liquids and gases.

³Black liquor, and wood/wood waste solids and liquids.

⁴The electric power sector comprises electricity-only and combined-heat-power (CHP) plants within North American Classification System (NAICS) 22 category whose primary business is to sell electricity, or electricity and heat, to the public.

MSW = Municipal Solid Waste.

PV = Photovoltaic.

* = Less than 500 billion Btu.

- = No data reported.

Notes: Totals may not equal sum of components due to independent rounding. Starting with 2004 EIA adopted a new method of allocating fuel consumption between electric power generation and useful thermal out put (UTO) for combined heat and power (CHP) plants. The new method proportionately distributes a CHP plant's losses between the two output products (electric power and UTO) assuming the same efficiency for production of electricity as UTO. Energy consumption for the noncombustible renewable energy sources (hydroelectric conventional, solar thermal, PV and wind) used in electricity generation is determined by multiplying generation times the fossil fuel equivalent heat rate. Energy consumption for geothermal energy used in electricity generation is determined by multiplying generation times the geothermal heat rate. See EIA, Annual Energy Review (AER) 2008, DOE/EIA-0384 (2008) (Washington, DC, June 2009), Table A6.

Data revisions are discussed in the Highlights section.

Sources: Analysis conducted by U.S. Energy Information Administration, Office of Coal, Nuclear, Electric and Alternate Fuels and the following specific sources:

U.S. Energy Information Administration, Form EIA-923, "Power Plant Operations Report," and predecessor forms: Form EIA-906, "Power Plant Report," and Form EIA-920, "Combined Heat and Power Plant Report."