Table 10.1 Renewable Energy Production and Consumption by Source

(Trillion Btu)

	Productiona			Consumption								
	Biomass		Total Renew-	Unidan				Biomass				Total
	Bio- fuels ^b	Totalc	able Energy ^d	Hydro- electric Power ^e	Geo- thermal ^f	Solar ^g	Windh	Wood ⁱ	Waste ^j	Bio- fuels ^k	Total	Renew- able Energy
1950 Total 1955 Total 1960 Total 1965 Total 1970 Total 1970 Total 1975 Total	NA NA NA NA NA NA	1,562 1,424 1,320 1,335 1,431 1,499 2,475	2,978 2,784 2,928 3,396 4,070 4,687 5,428	1,415 1,360 1,608 2,059 2,634 3,155 2,900	NA NA (s) 2 6 34 53	NA NA NA NA NA NA	NA NA NA NA NA NA	1,562 1,424 1,320 1,335 1,429 1,497 2,474	NA NA NA NA 2 2 2	NA NA NA NA NA NA	1,562 1,424 1,320 1,335 1,431 1,499 2,475	2,978 2,784 2,928 3,396 4,070 4,687 5,428
1985 Total 1990 Total 1990 Total 2000 Total 2001 Total 2002 Total 2003 Total 2004 Total 2005 Total 2006 Total 2007 Total 2007 Total 2007 Total 2017 Total	93 111 198 233 254 308 401 486 561 716 970 1,374 1,570 1,868 2,029 1,929 1,981	3,016 2,735 3,099 3,006 2,624 2,705 2,805 2,996 3,101 3,212 3,472 3,868 3,953 4,316 4,501 4,406 4,647	6,084 6,040 6,557 6,102 5,162 5,731 5,942 6,063 6,221 6,586 6,510 7,191 7,620 8,077 9,095 8,743 9,249	2,970 3,046 3,205 2,811 2,242 2,689 2,793 2,688 2,703 2,869 2,446 2,511 2,669 3,103 2,629 2,562	97 171 152 164 164 171 173 178 181 181 186 192 200 208 212 212	(s) 59 68 63 62 60 58 58 58 61 65 74 78 90 111 157 225	(s) 29 33 57 70 105 113 142 178 264 341 546 721 923 1,168 1,340 1,601	2,687 2,216 2,370 2,262 2,006 1,995 2,002 2,121 2,137 2,099 2,059 1,931 1,981 2,010 2,010 2,170	236 408 531 511 364 402 401 389 403 397 413 435 452 468 462 467 496	93 111 200 236 253 303 403 498 574 766 983 1,357 1,553 1,892 2,007	3,016 2,735 3,101 3,008 2,622 2,701 2,806 3,008 3,114 3,262 3,485 3,851 3,936 4,270 4,405 4,673	6,084 6,040 6,559 6,104 5,160 5,726 5,944 6,075 6,233 6,637 6,523 7,174 7,604 8,030 8,999 8,706 9,275
Pebruary February March April May June July August September October November December Total	170 153 173 170 178 177 183 179 173 179 177 191 2,103	404 367 406 392 403 406 420 416 396 407 403 428 4,849	815 700 850 858 858 855 820 754 709 758 803 820 9,595	206 165 231 242 252 245 232 188 153 163 177 212 2,467	18 16 18 18 18 18 18 18 18 18 18	17 18 26 29 33 35 34 35 33 31 25 21	170 133 169 177 148 150 116 97 110 138 179 140 1,728	190 173 189 179 182 186 192 193 182 186 185 194 2,230	45 41 45 44 43 42 45 43 41 42 42 44 516	163 150 167 167 176 173 180 182 172 180 173 183 2,067	397 364 401 390 401 402 417 418 394 408 399 420 4,812	808 697 845 856 853 849 817 756 708 759 799 812 9,558
2015 January February March April May June July August September October November December Total	178 162 180 172 183 184 187 185 175 183 190 2,161	401 363 393 380 396 395 410 406 385 393 394 412 4,727	806 751 815 812 805 771 796 770 721 753 806 860 9,466	225 208 226 209 188 190 196 178 150 155 180 216 2,321	18 17 18 17 18 17 18 17 18 17 18 18 18 213	21 25 35 40 43 43 45 45 39 34 30 27	141 139 143 167 160 125 127 122 130 153 183 187 1,777	179 162 170 165 170 168 176 177 168 165 167 175 2,043	43 39 43 42 43 42 46 44 42 45 47 522	163 158 176 170 185 186 189 189 182 184 179 185 2,145	386 358 389 378 398 397 411 411 392 394 391 406 4,711	792 747 811 810 807 773 797 774 728 754 802 855 9,450
2016 January	184 175 189 174 188 188 195 197 186 192 1,869	401 376 397 372 391 394 407 410 385 393 3,926	856 845 916 868 880 836 852 797 766 813	236 225 252 237 236 213 198 180 152 161 2,091	19 18 19 18 20 18 19 19 19	27 37 45 49 57 58 63 61 56 50	173 188 203 192 175 152 164 126 153 190 1,716	171 159 163 153 160 162 167 167 158 157 1,620	45 41 44 45 44 44 45 45 41 43 43	172 174 188 173 191 191 201 204 192 193 1,878	388 375 395 372 394 396 413 417 391 393 3,935	843 844 914 868 883 838 858 804 772 813 8,436
2015 10-Month Total 2014 10-Month Total	1,790 1,735	3,921 4,018	7,800 7,972	1,925 2,077	177 178	370 291	1,407 1,408	1,701 1,852	430 431	1,782 1,711	3,913 3,993	7,792 7,947

^a Production equals consumption for all renewable energy sources except

j 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).

K Fuel ethanol (minus denaturant) and biodiesel consumption, plus losses and co-products from the production of fuel ethanol and biodiesel.

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

Notes: ● Most data for the residential, commercial, industrial, and transportation sectors are estimates. See notes and sources for Tables 10.2a and 10.2b. ● See Note, "Renewable Energy Production and Consumption," at end of section.

■ 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: Tables 10.2a−10.5.

a Production equals consumption for all renewable energy sources except biofuels.
b Total biomass inputs to the production of fuel ethanol and biodiesel.
c Wood and wood-derived fuels, biomass waste, and total biomass inputs to the production of fuel ethanol and biodiesel.
d Hydroelectric power, geothermal, solar, wind, and biomass.
e Conventional hydroelectricity net generation (converted to Btu by multiplying by the total fossil fuels heat rate factors in Table A6).
f Geothermal electricity net generation (converted to Btu by multiplying by the total fossil fuels heat rate factors in Table A6), and geothermal heat pump and direct use energy.
g Solar photovoltaic (PV) and solar thermal electricity net generation (converted to Btu by multiplying by the total fossil fuels heat rate factors in Table A6), and solar thermal direct use energy.
h Wind electricity net generation (converted to Btu by multiplying by the total fossil fuels heat rate factors in Table A6).
i Wood and wood-derived fuels.