

Table 10.1 Renewable Energy Production and Consumption by Primary Energy Source, Selected Years, 1949-2007
(Trillion Btu)

Year	Production ¹			Consumption								Total Renewable Energy
	Biomass		Total Renewable Energy ⁴	Hydro-electric Power ⁵	Geo-thermal ⁶	Solar/PV ⁷	Wind ⁸	Biomass				
	Biofuels ²	Total ³						Wood ⁹	Waste ¹⁰	Biofuels ¹¹	Total	
1949	NA	1,549	2,974	1,425	NA	NA	NA	1,549	NA	NA	1,549	2,974
1950	NA	1,562	2,978	1,415	NA	NA	NA	1,562	NA	NA	1,562	2,978
1955	NA	1,424	2,784	1,360	NA	NA	NA	1,424	NA	NA	1,424	2,784
1960	NA	1,320	2,929	1,608	1	NA	NA	1,320	NA	NA	1,320	2,929
1965	NA	1,335	3,398	2,059	4	NA	NA	1,335	NA	NA	1,335	3,398
1970	NA	1,431	4,076	2,634	11	NA	NA	1,429	2	NA	1,431	4,076
1971	NA	1,432	4,268	2,824	12	NA	NA	1,430	2	NA	1,432	4,268
1972	NA	1,503	4,398	2,864	31	NA	NA	1,501	2	NA	1,503	4,398
1973	NA	1,529	4,433	2,861	43	NA	NA	1,527	2	NA	1,529	4,433
1974	NA	1,540	4,769	3,177	53	NA	NA	1,538	2	NA	1,540	4,769
1975	NA	1,499	4,723	3,155	70	NA	NA	1,497	2	NA	1,499	4,723
1976	NA	1,713	4,768	2,976	78	NA	NA	1,711	2	NA	1,713	4,768
1977	NA	1,838	4,249	2,333	77	NA	NA	1,837	2	NA	1,838	4,249
1978	NA	2,038	5,039	2,937	64	NA	NA	2,036	1	NA	2,038	5,039
1979	NA	2,152	5,166	2,931	84	NA	NA	2,150	2	NA	2,152	5,166
1980	NA	2,476	5,485	2,900	110	NA	NA	2,474	2	NA	2,476	5,485
1981	13	2,596	5,477	2,758	123	NA	NA	2,496	88	13	2,596	5,477
1982	35	2,664	6,034	3,266	105	NA	NA	2,510	119	35	2,664	6,034
1983	63	2,904	6,561	3,527	129	NA	(s)	2,684	157	63	2,904	6,561
1984	77	2,971	6,522	3,386	165	(s)	(s)	2,686	208	77	2,971	6,522
1985	93	3,016	6,185	2,970	198	(s)	(s)	2,687	236	93	3,016	6,185
1986	107	2,932	6,223	3,071	219	(s)	(s)	2,562	263	107	2,932	6,223
1987	123	2,875	5,739	2,635	229	(s)	(s)	2,463	289	123	2,875	5,739
1988	124	3,016	5,568	2,334	217	(s)	(s)	2,577	315	124	3,016	5,568
1989	126	3,160	6,391	2,837	317	55	22	2,680	354	126	3,160	6,391
1990	111	2,735	6,206	3,046	336	60	29	2,216	408	111	2,735	6,206
1991	129	2,782	6,238	3,016	346	63	31	2,214	440	129	2,782	6,238
1992	146	2,933	5,993	2,617	349	64	30	2,313	473	146	2,933	5,993
1993	171	2,910	6,263	2,892	364	66	31	2,260	479	171	2,910	6,262
1994	190	3,030	6,155	2,683	338	69	36	2,324	515	190	3,030	6,155
1995	200	3,102	6,703	3,205	294	70	33	2,370	531	202	3,104	6,705
1996	143	3,157	7,167	3,590	316	71	33	2,437	577	145	3,159	7,168
1997	190	3,111	7,180	3,640	325	70	34	2,371	551	187	3,108	7,178
1998	206	2,933	6,659	3,297	328	70	31	2,184	542	205	2,931	6,657
1999	215	2,969	6,683	3,268	331	69	46	2,214	540	213	2,967	6,681
2000	238	3,010	6,262	2,811	317	66	57	2,262	511	241	3,013	6,264
2001	260	2,629	5,318	2,242	311	65	70	2,006	364	258	2,627	5,316
2002	R315	2,712	5,899	2,689	328	64	105	1,995	402	309	2,706	5,893
2003	412	R2,815	6,149	2,825	331	64	115	2,002	401	414	2,817	R6,150
2004	501	3,011	6,248	2,690	341	65	142	2,121	389	513	3,023	6,261
2005	R582	R3,141	R6,431	2,703	343	66	178	R2,156	403	R595	R3,154	R6,444
2006	R745	R3,324	R6,872	R2,869	R343	R72	R264	R2,172	R407	R795	R3,374	R6,922
2007 ^P	988	3,584	6,800	2,463	353	80	319	2,165	431	1,018	3,615	6,830

¹ Production equals consumption for all renewable energy sources except biofuels.

² Total biomass inputs to the production of fuel ethanol and biodiesel.

³ Wood and wood-derived fuels, biomass waste, fuel ethanol, and biodiesel.

⁴ Hydroelectric power, geothermal, solar/PV, wind, and biomass.

⁵ Conventional hydroelectricity net generation (converted to Btu using the fossil-fueled plants heat rate).

⁶ Geothermal electricity net generation (converted to Btu using the geothermal energy plants heat rate), and geothermal heat pump and direct use energy.

⁷ Solar thermal and photovoltaic electricity net generation (converted to Btu using the fossil-fueled plants heat rate), and solar thermal direct use energy.

⁸ Wind electricity net generation (converted to Btu using the fossil-fueled plants heat rate).

⁹ Wood and wood-derived fuels.

¹⁰ 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).

¹¹ Fuel ethanol and biodiesel consumption, plus losses and co-products from the production of fuel ethanol and biodiesel.

R=Revised. P=Preliminary. NA=Not available. (s)=Less than 0.5 trillion Btu.

Notes: • See Note, "Renewable Energy Production and Consumption," at end of section. • See Table E1 for estimated renewable energy consumption for 1635-1945. • Totals may not equal sum of components due to independent rounding.

Web Pages: • For all data beginning in 1949, see <http://www.eia.doe.gov/emeu/aer/renew.html>.

• For related information, see <http://www.eia.doe.gov/fuelrenewable.html>.

Sources: **Biofuels:** Table 10.3. **All Other Data:** Tables 10.2a-c.