

**Table 10.2a Renewable Energy Consumption: Residential and Commercial Sectors, Selected Years, 1949-2011**  
(Trillion Btu)

Year	Residential Sector				Commercial Sector <sup>1</sup>								
	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			Total	Total
			Wood <sup>4</sup>						Wood <sup>4</sup>	Waste <sup>8</sup>	Fuel Ethanol <sup>9</sup>		
1949	NA	NA	1,055	1,055	NA	NA	NA	NA	20	NA	NA	20	20
1950	NA	NA	1,006	1,006	NA	NA	NA	NA	19	NA	NA	19	19
1955	NA	NA	775	775	NA	NA	NA	NA	15	NA	NA	15	15
1960	NA	NA	627	627	NA	NA	NA	NA	12	NA	NA	12	12
1965	NA	NA	468	468	NA	NA	NA	NA	9	NA	NA	9	9
1970	NA	NA	401	401	NA	NA	NA	NA	8	NA	NA	8	8
1975	NA	NA	425	425	NA	NA	NA	NA	8	NA	NA	8	8
1976	NA	NA	482	482	NA	NA	NA	NA	9	NA	NA	9	9
1977	NA	NA	542	542	NA	NA	NA	NA	10	NA	NA	10	10
1978	NA	NA	622	622	NA	NA	NA	NA	12	NA	NA	12	12
1979	NA	NA	728	728	NA	NA	NA	NA	14	NA	NA	14	14
1980	NA	NA	850	850	NA	NA	NA	NA	21	NA	NA	21	21
1981	NA	NA	870	870	NA	NA	NA	NA	21	NA	(s)	21	21
1982	NA	NA	970	970	NA	NA	NA	NA	22	NA	(s)	22	22
1983	NA	NA	970	970	NA	NA	NA	NA	22	NA	(s)	22	22
1984	NA	NA	980	980	NA	NA	NA	NA	22	NA	(s)	22	22
1985	NA	NA	1,010	1,010	NA	NA	NA	NA	24	NA	(s)	24	24
1986	NA	NA	920	920	NA	NA	NA	NA	27	NA	(s)	27	27
1987	NA	NA	850	850	NA	NA	NA	NA	29	NA	1	30	30
1988	NA	NA	910	910	NA	NA	NA	NA	32	NA	1	33	33
1989	5	52	920	977	1	3	—	—	76	22	1	99	102
1990	6	56	580	641	1	3	—	—	66	28	(s)	94	98
1991	6	57	610	673	1	3	—	—	68	26	(s)	95	100
1992	6	R60	640	706	1	3	—	—	72	32	(s)	105	109
1993	7	61	550	618	1	3	—	—	76	33	(s)	109	114
1994	6	63	520	589	1	4	—	—	72	35	(s)	106	112
1995	7	64	520	591	1	5	—	—	72	40	(s)	113	118
1996	7	65	540	612	1	5	—	—	76	53	(s)	129	135
1997	8	64	430	502	1	6	—	—	73	58	(s)	131	138
1998	8	64	380	452	1	7	—	—	64	54	(s)	118	127
1999	9	63	390	461	1	7	—	—	67	54	(s)	121	129
2000	9	R61	420	489	1	8	—	—	71	47	(s)	119	128
2001	9	59	370	438	1	8	—	—	67	25	(s)	92	101
2002	10	57	380	448	(s)	9	—	—	69	26	(s)	95	104
2003	13	57	400	470	1	11	—	—	71	29	1	101	113
2004	14	57	410	481	1	12	—	—	70	34	1	105	118
2005	16	58	430	504	1	14	—	—	70	34	1	105	R120
2006	18	63	R380	R462	1	14	—	—	65	36	1	R103	R118
2007	22	70	R410	R502	1	14	—	—	R70	31	2	R103	118
2008	26	80	450	R557	1	15	(s)	—	73	34	2	109	125
2009	33	89	430	552	1	17	(s)	(s)	72	36	3	112	129
2010	37	R114	420	R571	1	19	(s)	(s)	R72	R36	3	R111	R130
2011 <sup>P</sup>	40	140	430	610	1	20	(s)	(s)	71	36	3	110	131

<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 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/monthly/#renewable> for updated monthly and annual data. • See <http://www.eia.gov/totalenergy/data/annual/#renewable> for all annual data beginning in 1949. • See <http://www.eia.gov/renewable/> for related information.

Sources: See end of section.