

**Table 10.2b Renewable Energy Consumption: Industrial and Transportation Sectors, Selected Years, 1949-2011**  
(Trillion Btu)

Year	Industrial Sector <sup>1</sup>										Transportation Sector		
	Hydro-electric Power <sup>2</sup>	Geo-thermal <sup>3</sup>	Solar/PV <sup>4</sup>	Wind <sup>5</sup>	Biomass					Total	Biomass		
					Wood <sup>6</sup>	Waste <sup>7</sup>	Fuel Ethanol <sup>8</sup>	Losses and Co-products <sup>9</sup>	Total		Fuel Ethanol <sup>10</sup>	Biodiesel	Total
1949	76	NA	NA	NA	468	NA	NA	NA	468	544	NA	NA	NA
1950	69	NA	NA	NA	532	NA	NA	NA	532	602	NA	NA	NA
1955	38	NA	NA	NA	631	NA	NA	NA	631	669	NA	NA	NA
1960	39	NA	NA	NA	680	NA	NA	NA	680	719	NA	NA	NA
1965	33	NA	NA	NA	855	NA	NA	NA	855	888	NA	NA	NA
1970	34	NA	NA	NA	1,019	NA	NA	NA	1,019	1,053	NA	NA	NA
1975	32	NA	NA	NA	1,063	NA	NA	NA	1,063	1,096	NA	NA	NA
1976	33	NA	NA	NA	1,220	NA	NA	NA	1,220	1,253	NA	NA	NA
1977	33	NA	NA	NA	1,281	NA	NA	NA	1,281	1,314	NA	NA	NA
1978	32	NA	NA	NA	1,400	NA	NA	NA	1,400	1,432	NA	NA	NA
1979	34	NA	NA	NA	1,405	NA	NA	NA	1,405	1,439	NA	NA	NA
1980	33	NA	NA	NA	1,600	NA	NA	NA	1,600	1,633	NA	NA	NA
1981	33	NA	NA	NA	1,602	87	(s)	6	1,695	1,728	7	NA	7
1982	33	NA	NA	NA	1,516	118	(s)	16	1,650	1,683	18	NA	18
1983	33	NA	NA	NA	1,690	155	(s)	29	1,874	1,908	34	NA	34
1984	33	NA	NA	NA	1,679	204	1	35	1,918	1,951	41	NA	41
1985	33	NA	NA	NA	1,645	230	1	42	1,918	1,951	50	NA	50
1986	33	NA	NA	NA	1,610	256	1	48	1,915	1,948	57	NA	57
1987	33	NA	NA	NA	1,576	282	1	55	1,914	1,947	66	NA	66
1988	33	NA	NA	NA	1,625	308	1	55	1,989	2,022	67	NA	67
1989	28	2	—	—	1,584	200	1	56	1,841	1,871	68	NA	68
1990	31	2	—	—	1,442	192	1	49	1,684	1,717	60	NA	60
1991	30	2	—	—	1,410	185	1	56	1,652	1,684	70	NA	70
1992	31	2	—	—	1,461	179	1	64	1,705	1,737	80	NA	80
1993	30	2	—	—	1,484	181	1	74	1,741	1,773	94	NA	94
1994	62	3	—	—	1,580	199	1	82	1,862	1,927	105	NA	105
1995	55	3	—	—	1,652	195	2	86	1,934	1,992	112	NA	112
1996	61	3	—	—	1,683	224	1	61	1,969	2,033	81	NA	81
1997	58	3	—	—	1,731	184	1	80	1,996	2,057	102	NA	102
1998	55	3	—	—	1,603	180	1	86	1,872	1,929	113	NA	113
1999	49	4	—	—	1,620	171	1	90	1,882	1,934	118	NA	118
2000	42	4	—	—	1,636	145	1	99	1,881	1,928	135	NA	135
2001	33	5	—	—	1,443	129	3	108	1,681	1,719	141	1	142
2002	39	5	—	—	1,396	146	3	130	1,676	1,720	168	2	170
2003	43	3	—	—	1,363	142	4	169	1,679	1,726	228	2	230
2004	33	4	—	—	1,476	132	6	203	1,817	1,853	286	3	290
2005	32	4	—	—	1,452	148	7	230	1,837	1,873	327	12	339
2006	29	4	—	—	1,472	130	10	285	1,897	1,930	442	33	475
2007	16	5	—	—	R1,405	144	10	377	R1,936	R1,956	557	46	602
2008	17	5	—	—	R1,340	144	12	532	R2,028	R2,049	786	40	826
2009	18	4	—	—	R1,208	R155	13	617	R1,994	R2,016	894	R42	R935
2010	16	4	(s)	(s)	R1,301	R169	R17	R742	R2,230	R2,250	R1,040	R34	R1,074
2011 <sup>P</sup>	18	4	(s)	(s)	1,311	172	17	772	2,273	2,295	1,042	112	1,154

<sup>1</sup> Industrial sector, including industrial combined-heat-and-power (CHP) and industrial electricity-only plants. See Note 2, "Classification of Power Plants Into Energy-Use Sectors," at end of Section 8.

<sup>2</sup> Conventional hydroelectricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6).

<sup>3</sup> Geothermal heat pump and direct use energy.

<sup>4</sup> Photovoltaic (PV) electricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6) at industrial plants with capacity of 1 megawatt or greater.

<sup>5</sup> Wind electricity net generation (converted to Btu using the fossil-fuels heat rate—see Table A6).

<sup>6</sup> Wood and wood-derived fuels.

<sup>7</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>8</sup> The fuel ethanol (minus denaturant) portion of motor fuels, such as E10, consumed by the industrial sector.

<sup>9</sup> Losses and co-products from the production of fuel ethanol and biodiesel. Does not include natural

gas, electricity, and other non-biomass energy used in the production of fuel ethanol and biodiesel—these are included in the industrial sector consumption statistics for the appropriate energy source.

<sup>10</sup> The fuel ethanol (minus denaturant) portion of motor fuels, such as E10 and E85, consumed by the transportation sector.

R=Revised. P=Preliminary. NA=Not available. —=No data reported. (s)=Less than 0.5 trillion Btu.

Notes: • Data are estimates, except for industrial sector hydroelectric power in 1949–1978 and 1989 forward, solar/PV, and wind. • 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.