

Table 10.2b Renewable Energy Consumption: Industrial Sector
(Trillion Btu)

	Industrial Sector ^a									
	Hydro-electric Power ^b	Geo-thermal ^c	Solar ^d	Wind ^e	Biomass				Total	Total
					Wood ^f	Waste ^g	Fuel Ethanol ^{h,i}	Losses and Co-products ^j		
1950 Total	17	NA	NA	NA	532	NA	NA	NA	532	549
1955 Total	11	NA	NA	NA	631	NA	NA	NA	631	642
1960 Total	12	NA	NA	NA	680	NA	NA	NA	680	692
1965 Total	11	NA	NA	NA	855	NA	NA	NA	855	866
1970 Total	11	NA	NA	NA	1,019	NA	NA	NA	1,019	1,030
1975 Total	11	NA	NA	NA	1,063	NA	NA	NA	1,063	1,074
1980 Total	11	NA	NA	NA	1,600	NA	NA	NA	1,600	1,611
1985 Total	11	NA	NA	NA	1,645	230	1	42	1,918	1,928
1990 Total	10	2	(s)	—	1,442	192	1	49	1,684	1,696
1995 Total	18	3	(s)	—	1,652	195	2	86	1,934	1,955
2000 Total	14	4	(s)	—	1,636	145	1	99	1,881	1,900
2005 Total	11	4	(s)	—	1,452	148	7	227	1,834	1,849
2006 Total	10	4	(s)	—	1,472	130	10	280	1,892	1,906
2007 Total	5	5	(s)	—	1,413	145	10	369	1,937	1,947
2008 Total	6	5	(s)	—	1,339	143	12	519	2,012	2,023
2009 Total	6	4	1	—	1,178	154	13	603	1,948	1,959
2010 Total	6	4	1	—	1,409	168	17	727	2,320	2,331
2011 Total	6	4	1	(s)	1,438	165	17	756	2,375	2,387
2012 Total	8	4	2	(s)	1,462	159	17	711	2,349	2,363
2013 Total	12	4	3	(s)	1,489	187	18	714	2,407	2,427
2014 Total	4	4	4	(s)	1,495	190	14	766	2,466	2,478
2015 Total	5	4	5	(s)	1,476	190	18	791	2,474	2,489
2016 Total	4	4	7	(s)	1,474	174	18	821	2,487	2,503
2017 Total	5	4	8	(s)	1,442	168	18	847	2,475	2,493
2018 Total	4	4	9	(s)	1,432	165	19	855	2,471	2,489
2019 Total	4	4	11	(s)	1,407	156	19	835	2,416	2,435
2020 Total	3	4	12	2	1,356	160	19	735	2,270	2,292
2021 January	(s)	(s)	1	(s)	117	15	1	64	197	198
February	(s)	(s)	1	(s)	104	13	1	51	168	170
March	(s)	(s)	1	(s)	115	14	2	65	195	197
April	(s)	(s)	1	(s)	113	13	1	62	191	192
May	(s)	(s)	1	(s)	117	14	2	69	201	203
June	(s)	(s)	1	(s)	112	12	2	68	194	196
July	(s)	(s)	1	(s)	118	13	2	69	202	204
August	(s)	(s)	1	(s)	116	13	2	64	195	197
September	(s)	(s)	1	(s)	113	13	2	62	189	191
October	(s)	(s)	1	(s)	113	14	2	71	200	202
November	(s)	(s)	1	(s)	110	14	2	71	197	199
December	(s)	(s)	1	(s)	117	15	2	73	207	208
Total	3	4	14	(s)	1,366	161	19	789	2,336	2,357
2022 January	(s)	(s)	1	(s)	R 114	14	1	71	R 201	R 202
February	(s)	(s)	1	(s)	R 103	13	1	62	R 180	R 182
March	(s)	(s)	1	(s)	R 110	15	2	70	R 196	R 198
April	(s)	(s)	1	(s)	R 109	14	2	64	R 188	R 190
May	(s)	(s)	2	(s)	R 112	14	2	69	R 196	R 199
June	(s)	(s)	2	(s)	R 110	12	2	69	R 193	R 195
July	(s)	(s)	2	(s)	R 114	R 12	2	70	R 197	R 200
August	(s)	(s)	2	(s)	R 112	13	2	68	R 194	R 196
September	(s)	(s)	1	(s)	R 105	12	2	60	R 178	R 180
October	(s)	(s)	1	(s)	R 105	14	2	70	R 190	R 192
November	(s)	(s)	1	(s)	R 107	14	2	70	R 192	R 193
December	(s)	(s)	1	(s)	R 109	R 14	2	66	R 191	R 193
Total	3	4	15	(s)	R 1,308	161	19	808	R 2,296	R 2,319
2023 January	(s)	(s)	1	(s)	R 112	15	2	69	R 197	R 199
February	(s)	(s)	1	(s)	R 100	13	1	62	R 176	R 178
March	(s)	(s)	1	(s)	R 106	14	2	68	R 190	R 192
April	(s)	(s)	2	(s)	R 97	14	2	65	R 177	R 179
May	(s)	(s)	2	(s)	R 104	14	2	69	R 189	R 191
June	(s)	(s)	2	(s)	R 98	12	2	69	R 181	R 183
July	(s)	(s)	2	(s)	R 101	13	2	71	R 186	R 188
August	(s)	(s)	2	(s)	102	12	2	69	185	187
8-Month Total	2	3	11	(s)	820	107	13	540	1,480	1,497
2022 8-Month Total	2	3	10	(s)	882	107	13	543	1,545	1,561
2021 8-Month Total	2	3	10	(s)	912	106	12	512	1,543	1,558

^a 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 7.

^b Conventional hydroelectricity net generation (converted to Btu by multiplying by the heat content of electricity in Table A6).

^c Geothermal heat pump and direct use energy.

^d Solar photovoltaic (PV) electricity net generation in the industrial sector (converted to Btu by multiplying by the heat content of electricity in Table A6), both utility-scale and small-scale. See Table 10.5.

^e Wind electricity net generation (converted to Btu by multiplying by the heat content of electricity in Table A6).

^f Wood and wood-derived fuels.

^g 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).

^h The fuel ethanol (minus denaturant) portion of motor fuels, such as E10, consumed by the industrial sector.

ⁱ There is a discontinuity in this time series between 2014 and 2015 due to a

change in the method for allocating motor gasoline consumption to the end-use sectors. Beginning in 2015, the commercial and industrial sector shares of fuel ethanol consumption are larger than in 2014, while the transportation sector share is smaller.

^j 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.

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

Notes: • Industrial sector data are estimates, except for hydroelectric power in 1949–1978 and 1989 forward, and wind. • 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: See end of section.

Due to a revised methodology, historical data for calculating the heat content of electricity net generation from hydroelectric power, geothermal, solar, and wind energy were revised in the September 2023 *Monthly Energy Review*. See "Appendix E Alternative Measures for the Energy Content of Noncombustible Renewables" for more information.