

Table E1b. Noncombustible Renewable Primary Energy Consumption: Solar and Total
(Trillion Btu)

	Solar ^a						Total ^b			
	Distributed ^c			Utility-Scale ^d			Total Primary Energy ⁱ	Captured Energy ^j	Adjustment for Fossil Fuel Equivalence ^g	Total Primary Energy ⁱ
	Direct Consumption ^e	Transformed Into Electricity ^f	Adjustment for Fossil Fuel Equivalence ^g	Transformed Into Electricity ^{f,h}	Adjustment for Fossil Fuel Equivalence ^g	Total Primary Energy ⁱ				
1950	NA	NA	NA	NA	NA	NA	344	1,071	1,415	
1955	NA	NA	NA	NA	NA	NA	397	963	1,360	
1960	NA	NA	NA	NA	NA	NA	510	1,098	1,608	
1965	NA	NA	NA	NA	NA	NA	673	1,388	2,061	
1970	NA	NA	NA	NA	NA	NA	858	1,781	2,639	
1975	NA	NA	NA	NA	NA	NA	1,045	2,143	3,188	
1980	NA	NA	NA	NA	NA	NA	970	1,983	2,953	
1981	NA	NA	NA	NA	NA	NA	920	1,898	2,817	
1982	NA	NA	NA	NA	NA	NA	1,082	2,234	3,316	
1983	NA	NA	NA	NA	NA	NA	1,165	2,426	3,591	
1984	NA	NA	NA	(s)	(s)	(s)	1,133	2,334	3,467	
1985	NA	NA	NA	(s)	(s)	(s)	1,002	2,066	3,068	
1986	NA	NA	NA	(s)	(s)	(s)	1,038	2,141	3,179	
1987	NA	NA	NA	(s)	(s)	(s)	900	1,847	2,747	
1988	NA	NA	NA	(s)	(s)	(s)	807	1,634	2,441	
1989	52	(s)	(s)	^h 1	2	54	1,047	2,029	3,075	
1990	55	(s)	(s)	1	3	59	1,128	2,177	3,305	
1991	56	(s)	(s)	2	3	62	1,120	2,166	3,286	
1992	58	(s)	(s)	1	3	63	1,000	1,889	2,889	
1993	60	(s)	(s)	2	3	65	1,099	2,075	3,173	
1994	62	(s)	(s)	2	3	67	1,029	1,931	2,960	
1995	63	(s)	(s)	2	3	68	1,196	2,263	3,458	
1996	63	(s)	(s)	2	4	69	1,325	2,531	3,856	
1997	62	(s)	1	2	3	68	1,358	2,551	3,909	
1998	61	(s)	1	2	3	67	1,245	2,319	3,564	
1999	60	(s)	1	2	3	66	1,237	2,313	3,550	
2000	57	(s)	1	2	3	63	1,087	2,009	3,096	
2001	55	(s)	1	2	4	62	890	1,648	2,538	
2002	53	1	1	2	4	60	1,066	1,960	3,025	
2003	51	1	1	2	4	58	1,109	2,028	3,138	
2004	50	1	2	2	4	58	1,097	1,969	3,067	
2005	49	1	2	2	4	58	1,119	2,001	3,120	
2006	51	2	3	2	3	61	1,218	2,157	3,375	
2007	53	2	5	2	4	66	1,110	1,928	3,038	
2008	54	4	7	3	6	74	1,217	2,107	3,323	
2009	55	5	10	3	6	78	1,353	2,315	3,668	
2010	56	8	15	4	8	91	1,390	2,371	3,761	
2011	58	13	24	6	11	112	1,692	2,903	4,595	
2012	59	21	38	15	26	159	1,635	2,705	4,339	
2013	61	28	50	31	55	225	1,726	2,877	4,602	
2014	62	38	68	60	108	337	1,783	2,963	4,746	
2015	63	48	84	85	147	427	1,814	2,922	4,737	
2016	63	64	109	123	210	570	2,056	3,291	5,348	
2017	65	82	139	182	309	777	2,339	3,758	6,097	
2018	66	101	171	227	386	951	2,448	3,942	6,390	

^a Solar thermal direct use energy; and solar photovoltaic (PV) and solar thermal electricity net generation.

^b Conventional hydroelectricity net generation; geothermal heat pump and direct use energy; geothermal electricity net generation; wind electricity net generation; solar thermal direct use energy; and solar photovoltaic (PV) and solar thermal electricity net generation.

^c Distributed (small-scale) facilities (electric generators have a combined generator nameplate capacity of less than 1 megawatt).

^d Utility-scale facilities (combined generator nameplate capacity of 1 megawatt or more).

^e Solar thermal direct use energy.

^f Electricity net generation in kilowatthours (kWh) multiplied by 3,412 Btu/kWh, the heat content of electricity (see Table A6).

^g Equals the difference between the fossil-fuel equivalent value of electricity and the captured energy consumed as electricity. The fossil-fuel equivalent value of electricity equals electricity net generation in kilowatthours multiplied by the total fossil fuels heat rate factors (see Table A6). The captured energy consumed as electricity equals electricity net generation in kilowatthours multiplied by 3,412 Btu/kWh, the heat content of electricity (see Table A6).

^h Through 1988, data are for electric utilities only. Beginning in 1989, data are for electric utilities, independent power producers, commercial plants, and industrial plants.

ⁱ Direct consumption of energy; and energy used to generate electricity, calculated as electricity net generation in kilowatthours multiplied by the total fossil fuels heat rate factors (see Table A6).

^j Direct consumption of energy plus captured energy consumed as electricity, which is calculated as electricity net generation in kilowatthours (kWh) multiplied by 3,412 Btu/kWh, the heat content of electricity (see Table A6).

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

Notes: • Beginning in 1989, data for distributed solar and total captured energy are estimates. For the current year, data for utility-scale solar are estimates.

• 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/#appendices> (Excel and CSV files) for all available annual data beginning in 1949.

Sources: • **Solar:** Tables 10.5, 10.6, and A6. • **Total:** Tables 7.2a, 10.1, 10.2a, 10.2b, 10.5, 10.6, and A6.