

Table 10.1 Renewable Energy Production and Consumption by Source
(Trillion Btu)

	Production ^a			Consumption								Total Renewable Energy
	Biomass		Total Renewable Energy ^d	Hydroelectric Power ^e	Geothermal ^f	Solar ^g	Wind ^h	Biomass			Total	
	Bio-fuels ^b	Total ^c						Wood ⁱ	Waste ^j	Bio-fuels ^k		
1950 Total	NA	1,562	2,978	1,415	NA	NA	NA	1,562	NA	NA	1,562	2,978
1955 Total	NA	1,424	2,784	1,360	NA	NA	NA	1,424	NA	NA	1,424	2,784
1960 Total	NA	1,320	2,928	1,608	(s)	NA	NA	1,320	NA	NA	1,320	2,928
1965 Total	NA	1,335	3,396	2,059	2	NA	NA	1,335	NA	NA	1,335	3,396
1970 Total	NA	1,431	4,070	2,634	6	NA	NA	1,429	2	NA	1,431	4,070
1975 Total	NA	1,499	4,687	3,155	34	NA	NA	1,497	2	NA	1,499	4,687
1980 Total	NA	2,475	5,428	2,900	53	NA	NA	2,474	2	NA	2,475	5,428
1985 Total	93	3,016	6,084	2,970	97	(s)	(s)	2,687	236	93	3,016	6,084
1990 Total	111	2,735	6,040	3,046	171	59	29	2,216	408	111	2,735	6,040
1995 Total	198	3,099	6,557	3,205	152	68	33	2,370	531	200	3,101	6,559
2000 Total	233	3,006	6,102	2,811	164	63	57	2,262	511	236	3,008	6,104
2001 Total	254	2,624	5,162	2,242	164	62	70	2,006	364	253	2,622	5,160
2002 Total	308	2,705	5,731	2,689	171	60	105	1,995	402	303	2,701	5,726
2003 Total	401	2,805	5,942	2,793	173	58	113	2,002	401	403	2,806	5,944
2004 Total	486	2,996	6,063	2,688	178	58	142	2,121	389	498	3,008	6,075
2005 Total	561	3,101	6,221	2,703	181	58	178	2,137	403	574	3,114	6,233
2006 Total	716	3,212	6,586	2,869	181	61	264	2,099	397	766	3,262	6,637
2007 Total	970	3,472	6,510	2,446	186	65	341	2,089	413	983	3,485	6,523
2008 Total	1,374	3,868	7,191	2,511	192	74	546	2,059	435	1,357	3,851	7,174
2009 Total	1,570	3,957	7,624	2,669	200	78	721	1,935	452	1,553	3,940	7,608
2010 Total	1,868	4,553	8,313	2,539	208	90	923	2,217	468	1,821	4,506	8,266
2011 Total	2,029	4,704	9,298	3,103	212	111	1,168	2,213	462	1,934	4,609	9,203
2012 Total	1,929	4,547	8,884	2,629	212	157	1,340	2,151	467	1,890	4,508	8,845
2013 Total	1,981	4,816	9,418	2,562	214	225	1,601	2,338	496	2,014	4,848	9,451
2014 Total	2,103	5,020	9,766	2,467	214	337	1,728	2,401	516	2,077	4,994	9,740
2015 Total	2,161	4,992	9,728	2,321	212	426	1,777	2,312	518	2,153	4,983	9,719
2016 January	185	425	875	236	18	26	170	193	42	173	408	859
February	176	404	865	223	17	35	186	181	40	173	395	855
March	190	425	942	253	18	43	203	186	44	187	416	932
April	175	396	891	239	16	48	192	174	43	175	392	887
May	189	420	902	235	18	55	174	181	43	193	417	899
June	189	421	859	215	17	56	151	183	40	192	415	853
July	196	431	870	198	17	61	163	189	41	202	432	872
August	198	437	822	181	18	61	125	191	42	205	438	823
September	187	413	788	151	17	55	151	180	39	193	412	787
October	194	421	835	160	18	49	188	180	41	196	417	831
November	192	423	835	174	18	41	179	183	43	195	421	833
December	203	464	941	208	19	37	214	209	45	204	457	935
Total	2,275	5,081	10,427	2,472	210	569	2,096	2,230	503	2,287	5,020	10,366
2017 January	197	445	926	247	18	33	183	196	45	181	422	904
February	177	398	867	218	16	40	195	176	40	168	383	852
March	197	442	1,022	270	18	62	230	194	43	191	429	1,009
April	183	412	997	271	18	69	227	183	41	185	408	993
May	197	432	1,035	298	17	81	207	188	41	202	431	1,034
June	192	427	990	278	16	86	183	188	40	199	428	991
July	196	439	932	244	18	83	147	197	41	196	434	926
August	203	450	874	201	18	79	125	199	41	205	445	869
September	192	421	852	176	17	73	164	183	38	190	411	842
October	201	438	924	168	17	68	233	190	40	196	427	913
November	203	443	921	189	17	50	222	191	42	194	426	905
December	205	458	959	206	20	49	226	200	43	195	439	940
Total	2,344	5,204	11,298	2,767	210	774	2,343	2,285	495	2,304	5,084	11,179
2018 January	198	451	1,002	236	18	50	247	203	44	191	437	988
February	182	418	950	235	17	58	222	186	41	165	391	924
March	200	448	1,032	239	18	75	251	198	44	191	433	1,018
April	190	429	1,034	253	17	89	247	190	41	179	411	1,016
May	201	444	1,060	280	19	99	217	198	41	199	437	1,053
June	200	445	1,051	258	18	107	225	196	40	193	429	1,036
July	210	459	946	221	19	100	148	203	40	200	442	929
August	212	464	958	197	19	99	180	203	40	205	448	943
September	193	428	874	172	18	90	166	190	36	182	408	854
October	204	451	912	173	18	75	195	196	41	196	433	894
November	198	440	928	204	18	58	207	192	41	187	421	908
December	200	453	969	219	19	50	229	202	43	191	436	952
Total	2,389	5,329	11,716	2,688	217	949	2,533	2,357	492	2,279	5,128	11,515

^a For hydroelectric power, geothermal, solar, wind, and biomass waste, production equals consumption. For biofuels, production equals total biomass inputs to the production of fuel ethanol and biodiesel. For wood, through 2015, production equals consumption; beginning in 2016, production equals consumption plus densified biomass exports.

^b Total biomass inputs to the production of fuel ethanol and biodiesel.
^c Wood and wood-derived fuels, biomass waste, and total biomass inputs to the production of fuel ethanol and biodiesel.

^d Hydroelectric power, geothermal, solar, wind, and biomass.
^e Conventional hydroelectricity net generation (converted to Btu by multiplying by the total fossil fuels heat rate factors in Table A6).

^f Geothermal electricity net generation (converted to Btu by multiplying by the total fossil fuels heat rate factors in Table A6), and geothermal heat pump and direct use energy.

^g Solar photovoltaic (PV) and solar thermal electricity net generation (converted to Btu by multiplying by the total fossil fuels heat rate factors in Table A6), and solar thermal direct use energy.

^h Wind electricity net generation (converted to Btu by multiplying by the total fossil fuels heat rate factors in Table A6).

ⁱ Wood and wood-derived fuels.

^j 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).

^k Fuel ethanol (minus denaturant), biodiesel, other renewable diesel fuel, and other renewable fuels consumption; plus losses and co-products from the production of fuel ethanol and biodiesel.

R=Revised. NA=Not available. (s)=Less than 0.5 trillion Btu.
Notes: • Production data are estimates. Consumption data are estimates, except for hydroelectric power in 1949–1978 and 1989 forward, and wind. • See Note, "Renewable Energy Production and Consumption," at end of section.

• 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: • **Production:** Tables 10.2a–10.4 and U.S. Energy Information Administration, Form EIA-63C, "Densified Biomass Fuel Report."
• **Consumption:** Tables 10.2a–10.2c.