

Table 10.2a Renewable Energy Consumption: Residential and Commercial Sectors
(Trillion Btu)

	Residential Sector				Commercial Sector ^a								
	Geo-thermal ^b	Solar ^c	Biomass	Total	Hydro-electric Power ^e	Geo-thermal ^f	Solar ^g	Wind ^h	Biomass			Total	Total
			Wood ^d						Wood ^d	Waste ⁱ	Fuel Ethanol ^{j,k}		
1950 Total	NA	NA	1,006	1,006	NA	NA	NA	NA	19	NA	NA	19	19
1955 Total	NA	NA	775	775	NA	NA	NA	NA	15	NA	NA	15	15
1960 Total	NA	NA	627	627	NA	NA	NA	NA	12	NA	NA	12	12
1965 Total	NA	NA	468	468	NA	NA	NA	NA	9	NA	NA	9	9
1970 Total	NA	NA	401	401	NA	NA	NA	NA	8	NA	NA	8	8
1975 Total	NA	NA	425	425	NA	NA	NA	NA	8	NA	NA	8	8
1980 Total	NA	NA	850	850	NA	NA	NA	NA	21	NA	NA	21	21
1985 Total	NA	NA	1,010	1,010	NA	NA	NA	NA	24	NA	(s)	24	24
1990 Total	6	55	580	640	(s)	3	(s)	—	66	28	(s)	94	97
1995 Total	7	63	520	589	(s)	5	(s)	—	72	40	(s)	113	118
2000 Total	9	57	420	486	(s)	8	(s)	—	71	47	(s)	119	127
2005 Total	16	49	430	495	(s)	14	1	—	70	34	1	105	120
2006 Total	18	51	380	450	(s)	14	1	—	65	36	1	103	118
2007 Total	22	53	420	495	(s)	14	1	—	70	31	2	103	119
2008 Total	26	56	470	552	(s)	15	2	—	73	34	2	109	126
2009 Total	33	56	504	593	(s)	17	3	(s)	73	36	3	112	131
2010 Total	37	59	541	636	(s)	19	4	(s)	72	36	3	111	134
2011 Total	40	62	524	626	(s)	20	7	(s)	69	43	3	115	141
2012 Total	40	66	438	544	(s)	20	11	(s)	61	45	3	108	139
2013 Total	40	72	572	683	(s)	20	15	(s)	70	47	3	120	155
2014 Total	40	79	579	697	(s)	20	19	(s)	76	47	4	127	166
2015 Total	40	87	513	639	(s)	20	21	(s)	79	47	^k 26	152	193
2016 Total	40	100	445	584	1	20	23	(s)	84	48	26	158	201
2017 Total	40	113	430	582	1	20	28	(s)	84	48	25	156	205
2018 Total	40	123	525	688	1	20	35	1	84	47	25	156	213
2019 Total	40	136	546	721	1	21	40	1	84	39	26	149	211
2020 Total	40	151	345	536	1	21	46	1	83	38	26	147	215
2021 January	3	9	29	42	(s)	2	3	(s)	7	3	2	12	17
February	3	10	26	39	(s)	2	3	(s)	6	3	2	11	16
March	3	14	29	47	(s)	2	5	(s)	7	3	2	13	19
April	3	16	28	47	(s)	2	5	(s)	7	3	2	12	19
May	3	17	29	50	(s)	2	5	(s)	7	3	2	12	20
June	3	18	28	49	(s)	2	6	(s)	7	3	2	12	20
July	3	18	29	50	(s)	2	6	(s)	7	4	2	13	21
August	3	17	29	49	(s)	2	5	(s)	7	3	2	13	20
September	3	15	28	46	(s)	2	5	(s)	7	3	2	12	19
October	3	13	29	46	(s)	2	4	(s)	7	3	2	13	19
November	3	11	28	43	(s)	2	3	(s)	7	3	2	12	18
December	3	10	29	43	(s)	2	3	(s)	7	3	2	13	18
Total	40	169	344	553	1	21	54	1	83	39	27	149	225
2022 January	3	11	36	50	(s)	2	R 4	(s)	7	R 6	2	R 15	R 21
February	3	12	32	47	(s)	2	4	(s)	6	R 6	2	R 14	R 20
March	3	R 17	36	R 56	R (s)	2	5	(s)	7	R 6	2	R 15	R 23
April	3	18	35	56	R (s)	2	6	(s)	7	R 6	2	R 15	R 23
May	3	R 20	36	R 60	R (s)	2	6	(s)	7	R 6	2	R 16	R 24
June	3	R 20	35	R 58	R (s)	2	6	(s)	7	R 6	2	R 16	R 24
July	3	R 21	36	R 60	R (s)	2	R 7	(s)	7	R 7	2	R 16	R 24
August	3	R 20	36	59	R (s)	2	6	(s)	7	R 6	2	R 16	R 24
September	3	R 18	35	R 56	R (s)	2	6	(s)	7	R 6	2	R 15	R 23
October	3	R 17	36	R 56	R (s)	2	5	(s)	7	R 6	2	R 16	R 22
November	3	13	35	51	(s)	2	4	(s)	7	R 6	2	R 15	R 21
December	3	12	36	R 52	(s)	2	R 4	(s)	7	R 6	2	R 15	R 21
Total	40	R 200	422	R 662	1	R 20	R 63	1	83	R 75	27	R 185	R 269
2023 January	3	13	38	54	(s)	2	4	(s)	7	R 6	2	R 15	R 21
February	3	14	35	R 51	(s)	2	4	(s)	6	R 5	2	R 14	R 20
March	3	19	38	61	NM	2	6	(s)	7	R 6	2	R 15	R 23
April	3	R 21	37	62	NM	2	R 6	(s)	7	R 6	2	R 14	R 23
May	3	24	38	66	NM	2	7	(s)	7	R 6	2	R 15	R 24
June	3	24	37	64	NM	2	7	(s)	7	R 6	2	R 15	R 24
July	3	R 24	38	66	NM	2	7	(s)	7	6	2	R 15	25
August	3	24	38	66	NM	2	7	(s)	7	6	2	16	24
8-Month Total	26	163	300	489	1	13	49	(s)	54	47	18	120	183
2022 8-Month Total	26	139	281	447	1	13	45	(s)	56	50	18	123	182
2021 8-Month Total	26	119	229	375	1	14	38	(s)	55	26	17	99	152

^a 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 7.

^b Geothermal heat pump and direct use energy.
^c Small-scale solar photovoltaic (PV) electricity generation in the residential sector (converted to Btu by multiplying by the heat content of electricity in Table A6) and small-scale solar thermal energy in the residential, commercial, and industrial sectors. See Table 10.5.

^d Wood and wood-derived fuels.
^e Conventional hydroelectricity net generation (converted to Btu by multiplying by the heat content of electricity in Table A6).

^f Geothermal heat pump and direct use energy. Beginning in December 2018, also includes geothermal electricity net generation (converted to Btu by multiplying by the heat content of electricity in Table A6).

^g Solar photovoltaic (PV) electricity net generation in the commercial 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.

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

ⁱ 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).

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

^k 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.

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

Notes: • Residential sector data are estimates. Commercial sector data are estimates, except for hydroelectric power, wind, and biomass waste. • 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.