

Table A1. World total primary energy consumption by region, Reference case

quadrillion British thermal units

Region	2022	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2022–2050
Americas	152.6	152.3	155.8	160.3	165.0	171.2	178.7	0.6%
United States	98.9	97.3	97.4	98.3	99.4	101.9	105.1	0.2%
Canada	14.7	14.7	15.5	16.4	17.5	18.7	20.1	1.1%
Mexico	7.7	7.8	8.4	8.9	9.3	9.9	10.5	1.1%
Brazil	14.9	15.6	16.5	17.4	17.9	18.3	18.8	0.8%
Other Americas	16.4	16.8	18.0	19.3	20.8	22.4	24.2	1.4%
Europe and Eurasia	130.1	132.9	134.3	138.1	143.1	148.3	154.4	0.6%
Western Europe	84.2	86.1	86.9	88.7	91.2	93.6	96.7	0.5%
Russia	33.5	33.9	34.1	35.3	36.4	37.8	39.2	0.6%
Eastern Europe and Eurasia	12.3	12.8	13.3	14.2	15.4	16.8	18.5	1.5%
Asia Pacific	292.6	309.4	336.6	360.5	381.1	403.7	424.1	1.3%
Japan	18.6	18.6	17.1	16.5	16.2	15.9	15.8	-0.6%
South Korea	13.0	13.5	13.8	14.1	14.2	14.2	14.3	0.3%
Australia and New Zealand	7.2	7.2	7.7	8.0	8.4	8.8	9.2	0.9%
China	172.5	179.7	187.2	191.4	192.8	194.9	195.4	0.4%
India	38.3	43.5	56.2	69.4	82.5	96.7	110.4	3.9%
Other Asia Pacific	43.1	46.9	54.5	61.1	67.1	73.2	78.9	2.2%
Africa and Middle East	62.5	66.9	71.4	77.4	83.1	90.4	97.6	1.6%
Africa	24.3	26.0	29.5	33.6	37.2	42.5	47.8	2.4%
Middle East	38.2	40.8	42.0	43.9	45.9	47.9	49.8	0.9%
World	637.8	661.4	698.2	736.4	772.2	813.6	854.7	1.1%

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run r_230822.081459 and Annual Energy Outlook 2023 (March 2023), www.eia.gov/aeo

Note: Totals may not equal sum of components due to independent rounding. We converted electricity generation from renewable sources such as hydroelectric, wind, or solar to British thermal units at a rate of 8,124 British thermal units per kilowatthour, which reflects the average projected conversion efficiency of the U.S. fossil-fueled generating fleet in the Annual Energy Outlook 2021 over the projection period (2022–2050).