

Table A9. World consumption of renewable energy by region, High Zero-carbon Technology Cost case

quadrillion British thermal units

Region	2022	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2022–2050
Americas	28.6	30.9	35.9	40.2	42.7	45.1	48.0	1.9%
United States	11.4	13.5	17.1	19.7	20.6	21.1	22.1	2.4%
Canada	4.3	4.4	4.6	4.9	5.6	6.4	7.2	1.8%
Mexico	1.0	0.9	1.1	1.2	1.3	1.5	1.8	2.3%
Brazil	7.4	7.6	8.0	8.9	9.3	9.7	10.1	1.1%
Other Americas	4.5	4.6	5.1	5.5	5.8	6.2	6.9	1.5%
Europe and Eurasia	21.4	22.8	24.9	27.9	30.8	32.2	34.1	1.7%
Western Europe	18.4	19.7	21.8	24.5	27.5	28.9	30.8	1.9%
Russia	2.2	2.1	2.2	2.4	2.2	2.2	2.2	0.1%
Eastern Europe and Eurasia	0.9	1.0	1.0	1.1	1.1	1.1	1.1	0.9%
Asia Pacific	44.7	52.5	61.6	71.8	83.5	96.7	106.1	3.1%
Japan	2.4	2.2	2.4	2.6	3.1	3.3	3.5	1.4%
South Korea	0.6	0.6	0.8	1.0	1.2	1.5	1.6	3.6%
Australia and New Zealand	1.4	1.5	1.7	1.9	2.2	2.4	2.7	2.4%
China	26.6	31.5	35.2	37.3	41.0	45.1	45.8	2.0%
India	7.4	9.2	12.3	17.8	23.2	30.5	38.0	6.0%
Other Asia Pacific	6.3	7.5	9.1	11.2	12.8	13.9	14.5	3.1%
Africa and Middle East	5.7	7.1	9.2	10.5	12.0	13.8	15.4	3.6%
Africa	5.3	6.3	7.9	9.1	10.5	12.2	13.7	3.4%
Middle East	0.4	0.8	1.3	1.4	1.5	1.6	1.6	5.3%
World	100.4	113.4	131.7	150.5	169.0	187.8	203.7	2.6%

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run hz_230821.151430 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).