

**Table A1. World total primary energy consumption 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
<b>Americas</b>	<b>152.6</b>	<b>152.0</b>	<b>155.8</b>	<b>160.0</b>	<b>164.9</b>	<b>171.1</b>	<b>178.2</b>	<b>0.6%</b>
United States	98.9	97.3	97.5	98.2	99.5	101.7	104.7	0.2%
Canada	14.7	14.5	15.5	16.4	17.5	18.8	20.2	1.1%
Mexico	7.7	7.8	8.4	8.8	9.3	9.8	10.4	1.1%
Brazil	14.9	15.6	16.4	17.3	17.9	18.3	18.7	0.8%
Other Americas	16.4	16.8	18.0	19.3	20.8	22.4	24.2	1.4%
<b>Europe and Eurasia</b>	<b>130.0</b>	<b>132.4</b>	<b>134.0</b>	<b>137.7</b>	<b>142.6</b>	<b>147.9</b>	<b>153.6</b>	<b>0.6%</b>
Western Europe	84.2	85.8	86.6	88.3	90.8	93.3	95.8	0.5%
Russia	33.5	33.8	34.1	35.2	36.4	37.8	39.3	0.6%
Eastern Europe and Eurasia	12.3	12.7	13.3	14.2	15.4	16.8	18.5	1.5%
<b>Asia Pacific</b>	<b>292.6</b>	<b>309.0</b>	<b>336.2</b>	<b>360.0</b>	<b>380.2</b>	<b>402.1</b>	<b>421.7</b>	<b>1.3%</b>
Japan	18.5	18.5	17.0	16.5	16.2	15.9	15.7	-0.6%
South Korea	13.0	13.4	13.8	14.0	14.1	14.2	14.2	0.3%
Australia and New Zealand	7.2	7.2	7.7	8.0	8.4	8.8	9.2	0.9%
China	172.4	179.8	186.9	191.1	192.4	194.4	195.2	0.4%
India	38.3	43.2	55.9	69.2	81.9	95.5	108.5	3.8%
Other Asia Pacific	43.2	46.9	54.8	61.2	67.2	73.3	78.9	2.2%
<b>Africa and Middle East</b>	<b>62.5</b>	<b>66.7</b>	<b>71.3</b>	<b>76.9</b>	<b>83.0</b>	<b>90.1</b>	<b>96.7</b>	<b>1.6%</b>
Africa	24.3	26.0	29.6	33.2	37.4	42.4	47.2	2.4%
Middle East	38.2	40.7	41.6	43.6	45.7	47.7	49.5	0.9%
<b>World</b>	<b>637.7</b>	<b>660.2</b>	<b>697.3</b>	<b>734.6</b>	<b>770.7</b>	<b>811.2</b>	<b>850.2</b>	<b>1.0%</b>

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](http://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).