

**Table A9. World consumption of renewable energy by region, Reference case**

quadrillion British thermal units

Region	2022	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2022–2050
<b>Americas</b>	<b>28.6</b>	<b>31.6</b>	<b>39.9</b>	<b>44.8</b>	<b>48.0</b>	<b>51.5</b>	<b>55.7</b>	<b>2.4%</b>
United States	11.4	14.1	20.9	24.0	25.6	27.1	29.1	3.4%
Canada	4.3	4.4	4.6	5.0	5.7	6.5	7.3	1.9%
Mexico	1.0	0.9	1.1	1.2	1.3	1.6	1.8	2.4%
Brazil	7.4	7.6	8.1	9.0	9.4	9.8	10.1	1.1%
Other Americas	4.5	4.6	5.2	5.6	5.9	6.5	7.3	1.7%
<b>Europe and Eurasia</b>	<b>21.4</b>	<b>23.0</b>	<b>25.1</b>	<b>28.2</b>	<b>31.1</b>	<b>32.9</b>	<b>35.1</b>	<b>1.8%</b>
Western Europe	18.4	19.8	21.9	24.7	27.8	29.5	31.6	2.0%
Russia	2.2	2.2	2.2	2.4	2.2	2.2	2.2	0.2%
Eastern Europe and Eurasia	0.9	1.0	1.0	1.1	1.1	1.2	1.2	1.2%
<b>Asia Pacific</b>	<b>44.7</b>	<b>53.0</b>	<b>62.5</b>	<b>74.3</b>	<b>87.6</b>	<b>101.1</b>	<b>111.5</b>	<b>3.3%</b>
Japan	2.4	2.2	2.5	2.6	3.1	3.3	3.5	1.4%
South Korea	0.6	0.6	0.8	1.1	1.3	1.5	1.7	3.7%
Australia and New Zealand	1.4	1.5	1.7	1.9	2.2	2.4	2.7	2.4%
China	26.6	31.7	35.4	37.8	41.9	45.9	46.7	2.0%
India	7.4	9.4	12.8	19.4	25.6	33.0	40.7	6.3%
Other Asia Pacific	6.3	7.6	9.3	11.5	13.5	15.0	16.2	3.5%
<b>Africa and Middle East</b>	<b>5.7</b>	<b>7.1</b>	<b>9.2</b>	<b>10.7</b>	<b>12.2</b>	<b>14.5</b>	<b>16.8</b>	<b>3.9%</b>
Africa	5.3	6.3	7.9	9.3	10.7	12.9	15.2	3.8%
Middle East	0.4	0.8	1.3	1.4	1.5	1.6	1.7	5.3%
<b>World</b>	<b>100.5</b>	<b>114.8</b>	<b>136.8</b>	<b>157.9</b>	<b>178.9</b>	<b>199.9</b>	<b>219.0</b>	<b>2.8%</b>

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](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).