

**Table A12. World carbon dioxide emissions from natural gas use by region, High Zero-carbon Technology Cost case**

million metric tons of carbon dioxide

Region	2022	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2022–2050
<b>Americas</b>	<b>2,405</b>	<b>2,304</b>	<b>2,360</b>	<b>2,369</b>	<b>2,462</b>	<b>2,582</b>	<b>2,706</b>	<b>0.4%</b>
United States	1,724	1,593	1,609	1,585	1,635	1,710	1,787	0.1%
Canada	231	237	230	243	263	284	306	1.0%
Mexico	147	155	172	182	199	210	217	1.4%
Brazil	72	81	95	89	82	81	79	0.3%
Other Americas	231	237	255	270	283	298	315	1.1%
<b>Europe and Eurasia</b>	<b>2,319</b>	<b>2,356</b>	<b>2,431</b>	<b>2,496</b>	<b>2,598</b>	<b>2,717</b>	<b>2,855</b>	<b>0.7%</b>
Western Europe	1,087	1,123	1,187	1,181	1,186	1,197	1,218	0.4%
Russia	931	919	935	994	1,049	1,109	1,170	0.8%
Eastern Europe and Eurasia	300	314	309	321	363	411	467	1.6%
<b>Asia Pacific</b>	<b>1,845</b>	<b>1,984</b>	<b>2,146</b>	<b>2,288</b>	<b>2,459</b>	<b>2,691</b>	<b>2,897</b>	<b>1.6%</b>
Japan	223	226	213	196	184	185	181	-0.7%
South Korea	137	136	130	125	122	121	123	-0.4%
Australia and New Zealand	91	91	95	93	93	99	104	0.5%
China	738	814	869	961	1,074	1,203	1,310	2.1%
India	137	152	226	291	358	419	478	4.6%
Other Asia Pacific	519	565	612	621	629	664	702	1.1%
<b>Africa and Middle East</b>	<b>1,517</b>	<b>1,580</b>	<b>1,657</b>	<b>1,788</b>	<b>1,914</b>	<b>2,049</b>	<b>2,175</b>	<b>1.3%</b>
Africa	331	339	365	404	449	503	559	1.9%
Middle East	1,186	1,240	1,291	1,384	1,466	1,546	1,616	1.1%
<b>World</b>	<b>8,086</b>	<b>8,224</b>	<b>8,595</b>	<b>8,940</b>	<b>9,433</b>	<b>10,039</b>	<b>10,633</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.