

**Table M1. World coal production by region, High Oil Price case**

million short tons

Region	2022	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2022–2050
<b>Americas</b>	<b>781</b>	<b>727</b>	<b>457</b>	<b>527</b>	<b>516</b>	<b>529</b>	<b>516</b>	<b>-1.5%</b>
United States	626	576	299	347	327	322	296	-2.6%
Canada	61	55	49	52	53	62	66	0.3%
Mexico	8	8	13	14	14	14	14	2.0%
Brazil	4	5	4	5	7	5	5	0.2%
Other Americas	81	83	93	110	116	127	135	1.8%
<b>Europe and Eurasia</b>	<b>1,015</b>	<b>922</b>	<b>890</b>	<b>921</b>	<b>917</b>	<b>1,008</b>	<b>1,023</b>	<b>0.0%</b>
Western Europe	486	474	376	389	379	456	460	-0.2%
Russia	399	324	383	395	397	407	414	0.1%
Eastern Europe and Eurasia	129	125	131	137	141	145	149	0.5%
<b>Asia Pacific</b>	<b>6,455</b>	<b>6,375</b>	<b>6,678</b>	<b>6,837</b>	<b>6,904</b>	<b>6,830</b>	<b>6,866</b>	<b>0.2%</b>
Japan	1	1	1	1	1	1	1	1.6%
South Korea	1	1	1	2	2	2	2	1.7%
Australia and New Zealand	412	487	520	565	588	607	623	1.5%
China	4,366	4,156	4,008	3,848	3,726	3,535	3,484	-0.8%
India	805	881	1,111	1,246	1,326	1,383	1,425	2.1%
Other Asia Pacific	870	849	1,037	1,175	1,262	1,301	1,332	1.5%
<b>Africa and Middle East</b>	<b>214</b>	<b>227</b>	<b>265</b>	<b>299</b>	<b>317</b>	<b>342</b>	<b>361</b>	<b>1.9%</b>
Africa	212	225	263	296	315	339	358	1.9%
Middle East	2	2	2	2	2	2	3	1.0%
<b>World</b>	<b>8,464</b>	<b>8,251</b>	<b>8,290</b>	<b>8,583</b>	<b>8,654</b>	<b>8,709</b>	<b>8,766</b>	<b>0.1%</b>

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run hp\_230822.081357 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.

**Table M2. World thermal coal production by region, High Oil Price case**

million short tons

Region	2022	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2022–2050
<b>Americas</b>	<b>656</b>	<b>587</b>	<b>316</b>	<b>387</b>	<b>378</b>	<b>383</b>	<b>366</b>	<b>-2.1%</b>
United States	548	484	204	254	236	232	207	-3.4%
Canada	26	19	13	16	17	18	19	-1.0%
Mexico	3	3	7	8	8	8	8	4.1%
Brazil	4	5	4	5	7	5	5	0.2%
Other Americas	75	77	87	104	110	121	127	1.9%
<b>Europe and Eurasia</b>	<b>863</b>	<b>770</b>	<b>732</b>	<b>756</b>	<b>750</b>	<b>840</b>	<b>853</b>	<b>0.0%</b>
Western Europe	468	455	357	369	359	436	440	-0.2%
Russia	284	208	263	269	270	279	284	0.0%
Eastern Europe and Eurasia	111	107	112	118	122	125	130	0.5%
<b>Asia Pacific</b>	<b>5,694</b>	<b>5,656</b>	<b>6,028</b>	<b>6,241</b>	<b>6,351</b>	<b>6,318</b>	<b>6,384</b>	<b>0.4%</b>
Japan	1	1	1	1	1	1	1	1.6%
South Korea	1	1	1	2	2	2	2	1.7%
Australia and New Zealand	236	280	312	350	362	380	395	1.9%
China	3,874	3,740	3,663	3,567	3,498	3,352	3,344	-0.5%
India	757	832	1,062	1,197	1,277	1,334	1,363	2.1%
Other Asia Pacific	825	802	988	1,125	1,212	1,250	1,280	1.6%
<b>Africa and Middle East</b>	<b>205</b>	<b>218</b>	<b>256</b>	<b>289</b>	<b>308</b>	<b>331</b>	<b>350</b>	<b>1.9%</b>
Africa	204	218	255	289	307	331	349	1.9%
Middle East	0	0	0	0	0	0	0	2.3%
<b>World</b>	<b>7,418</b>	<b>7,232</b>	<b>7,331</b>	<b>7,673</b>	<b>7,787</b>	<b>7,874</b>	<b>7,953</b>	<b>0.2%</b>

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run hp\_230822.081357 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.

**Table M3. World metallurgical coal production by region, High Oil Price case**

million short tons

Region	2022	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2022–2050
<b>Americas</b>	<b>125</b>	<b>139</b>	<b>141</b>	<b>140</b>	<b>138</b>	<b>146</b>	<b>150</b>	<b>0.7%</b>
United States	78	92	94	93	91	90	89	0.5%
Canada	36	36	36	36	36	44	47	1.0%
Mexico	6	5	6	6	6	6	6	0.4%
Brazil	0	0	0	0	0	0	0	0.0%
Other Americas	6	6	6	6	6	6	8	1.1%
<b>Europe and Eurasia</b>	<b>151</b>	<b>152</b>	<b>157</b>	<b>164</b>	<b>166</b>	<b>168</b>	<b>170</b>	<b>0.4%</b>
Western Europe	18	19	19	20	20	20	20	0.4%
Russia	116	116	120	126	127	129	130	0.4%
Eastern Europe and Eurasia	17	18	18	19	19	19	20	0.4%
<b>Asia Pacific</b>	<b>761</b>	<b>719</b>	<b>650</b>	<b>596</b>	<b>553</b>	<b>511</b>	<b>482</b>	<b>-1.6%</b>
Japan	0	0	0	0	0	0	0	0.0%
South Korea	0	0	0	0	0	0	0	0.0%
Australia and New Zealand	175	207	208	215	226	227	227	0.9%
China	491	416	345	282	228	184	140	-4.4%
India	49	49	49	49	49	49	62	0.9%
Other Asia Pacific	45	47	49	50	51	52	53	0.5%
<b>Africa and Middle East</b>	<b>9</b>	<b>9</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>11</b>	<b>0.7%</b>
Africa	7	7	8	8	8	8	9	0.6%
Middle East	2	2	2	2	2	2	2	0.8%
<b>World</b>	<b>1,046</b>	<b>1,020</b>	<b>959</b>	<b>910</b>	<b>867</b>	<b>835</b>	<b>813</b>	<b>-0.9%</b>

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run hp\_230822.081357 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.

**Table M4. World coal consumption by region, High Oil Price case**

million short tons

Region	2022	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2022–2050
<b>Americas</b>	<b>574</b>	<b>486</b>	<b>229</b>	<b>282</b>	<b>297</b>	<b>299</b>	<b>278</b>	<b>-2.6%</b>
United States	499	418	154	187	177	168	144	-4.3%
Canada	25	15	5	6	6	6	6	-5.2%
Mexico	7	7	13	14	15	15	15	2.7%
Brazil	25	26	26	28	31	29	29	0.6%
Other Americas	17	19	29	48	68	81	84	5.8%
<b>Europe and Eurasia</b>	<b>1,019</b>	<b>993</b>	<b>852</b>	<b>855</b>	<b>848</b>	<b>946</b>	<b>959</b>	<b>-0.2%</b>
Western Europe	642	612	480	486	471	558	560	-0.5%
Russia	238	248	232	219	221	224	227	-0.2%
Eastern Europe and Eurasia	138	133	140	149	156	164	172	0.8%
<b>Asia Pacific</b>	<b>6,694</b>	<b>6,601</b>	<b>7,014</b>	<b>7,218</b>	<b>7,251</b>	<b>7,190</b>	<b>7,219</b>	<b>0.3%</b>
Japan	193	189	134	136	130	125	121	-1.7%
South Korea	110	105	111	116	119	120	120	0.3%
Australia and New Zealand	100	91	105	114	115	115	115	0.5%
China	4,676	4,532	4,483	4,399	4,170	3,903	3,810	-0.7%
India	1,063	1,130	1,453	1,586	1,720	1,795	1,825	1.9%
Other Asia Pacific	551	553	728	867	995	1,132	1,229	2.9%
<b>Africa and Middle East</b>	<b>177</b>	<b>172</b>	<b>196</b>	<b>229</b>	<b>259</b>	<b>274</b>	<b>310</b>	<b>2.0%</b>
Africa	165	161	184	217	247	262	297	2.1%
Middle East	12	12	11	12	12	12	12	0.2%
<b>World</b>	<b>8,464</b>	<b>8,251</b>	<b>8,290</b>	<b>8,583</b>	<b>8,654</b>	<b>8,709</b>	<b>8,766</b>	<b>0.1%</b>

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Note: Totals may not equal sum of components due to independent rounding.

**Table M5. World thermal coal consumption by region, High Oil Price case**

million short tons

Region	2022	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2022–2050
<b>Americas</b>	<b>536</b>	<b>445</b>	<b>188</b>	<b>240</b>	<b>255</b>	<b>258</b>	<b>237</b>	<b>-2.9%</b>
United States	483	401	137	170	161	153	130	-4.6%
Canada	22	12	2	3	3	3	3	-7.0%
Mexico	3	4	9	10	10	10	10	4.1%
Brazil	12	13	12	14	16	14	14	0.7%
Other Americas	15	16	26	45	65	78	79	6.1%
<b>Europe and Eurasia</b>	<b>852</b>	<b>826</b>	<b>684</b>	<b>682</b>	<b>669</b>	<b>763</b>	<b>771</b>	<b>-0.4%</b>
Western Europe	582	554	425	434	420	510	514	-0.4%
Russia	155	163	145	128	127	126	126	-0.7%
Eastern Europe and Eurasia	114	108	114	119	123	127	131	0.5%
<b>Asia Pacific</b>	<b>5,860</b>	<b>5,796</b>	<b>6,274</b>	<b>6,535</b>	<b>6,619</b>	<b>6,599</b>	<b>6,661</b>	<b>0.5%</b>
Japan	152	150	99	105	103	102	101	-1.5%
South Korea	72	68	72	76	79	80	80	0.3%
Australia and New Zealand	96	87	100	109	109	110	110	0.5%
China	4,067	3,949	3,974	3,968	3,817	3,619	3,591	-0.4%
India	948	1,018	1,332	1,445	1,554	1,600	1,601	1.9%
Other Asia Pacific	524	525	697	832	957	1,088	1,179	2.9%
<b>Africa and Middle East</b>	<b>170</b>	<b>164</b>	<b>186</b>	<b>216</b>	<b>244</b>	<b>254</b>	<b>285</b>	<b>1.9%</b>
Africa	163	157	178	209	236	246	277	1.9%
Middle East	8	8	7	8	8	8	8	0.1%
<b>World</b>	<b>7,418</b>	<b>7,232</b>	<b>7,331</b>	<b>7,673</b>	<b>7,787</b>	<b>7,874</b>	<b>7,953</b>	<b>0.2%</b>

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Note: Totals may not equal sum of components due to independent rounding.

**Table M6. World metallurgical coal consumption by region, High Oil Price case**

million short tons

Region	2022	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2022–2050
<b>Americas</b>	<b>38</b>	<b>40</b>	<b>41</b>	<b>42</b>	<b>41</b>	<b>41</b>	<b>41</b>	<b>0.3%</b>
United States	16	17	17	17	16	15	14	-0.5%
Canada	3	3	3	3	3	3	3	-0.1%
Mexico	4	4	4	4	5	5	5	0.9%
Brazil	13	14	14	14	15	15	15	0.5%
Other Americas	2	3	3	3	4	4	4	1.9%
<b>Europe and Eurasia</b>	<b>167</b>	<b>167</b>	<b>168</b>	<b>173</b>	<b>178</b>	<b>183</b>	<b>189</b>	<b>0.4%</b>
Western Europe	59	57	54	53	51	48	46	-0.9%
Russia	83	85	88	91	95	98	101	0.7%
Eastern Europe and Eurasia	24	25	27	30	33	37	41	2.0%
<b>Asia Pacific</b>	<b>834</b>	<b>805</b>	<b>739</b>	<b>683</b>	<b>631</b>	<b>591</b>	<b>558</b>	<b>-1.4%</b>
Japan	41	39	35	31	27	24	20	-2.5%
South Korea	38	38	39	40	40	40	40	0.2%
Australia and New Zealand	4	4	5	5	5	5	6	1.1%
China	609	583	509	431	354	284	219	-3.6%
India	115	113	121	141	166	194	224	2.4%
Other Asia Pacific	27	28	31	35	39	43	50	2.2%
<b>Africa and Middle East</b>	<b>7</b>	<b>8</b>	<b>10</b>	<b>12</b>	<b>16</b>	<b>20</b>	<b>25</b>	<b>4.8%</b>
Africa	3	4	6	8	12	15	20	7.6%
Middle East	4	4	4	4	4	4	4	0.2%
<b>World</b>	<b>1,046</b>	<b>1,020</b>	<b>959</b>	<b>910</b>	<b>867</b>	<b>835</b>	<b>813</b>	<b>-0.9%</b>

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Note: Totals may not equal sum of components due to independent rounding.

**Table M7. World coal imports by region, High Oil Price case**

million short tons

Region	2022	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2022–2050
<b>Americas</b>	<b>31</b>	<b>36</b>	<b>32</b>	<b>33</b>	<b>32</b>	<b>32</b>	<b>33</b>	<b>0.2%</b>
United States	5	9	4	4	2	1	2	-3.9%
Canada	5	4	4	4	4	4	4	-0.8%
Mexico	1	1	2	2	2	2	2	3.9%
Brazil	20	22	22	23	25	25	25	0.7%
Other Americas	0	0	0	0	1	1	1	8.0%
<b>Europe and Eurasia</b>	<b>168</b>	<b>150</b>	<b>116</b>	<b>112</b>	<b>108</b>	<b>121</b>	<b>123</b>	<b>-1.1%</b>
Western Europe	155	139	104	99	92	102	100	-1.6%
Russia	0	0	0	0	0	0	0	0.0%
Eastern Europe and Eurasia	13	11	12	14	16	19	23	2.1%
<b>Asia Pacific</b>	<b>1,113</b>	<b>1,156</b>	<b>1,376</b>	<b>1,519</b>	<b>1,526</b>	<b>1,536</b>	<b>1,533</b>	<b>1.1%</b>
Japan	192	188	133	135	129	124	120	-1.7%
South Korea	109	104	110	114	118	118	118	0.3%
Australia and New Zealand	0	0	0	0	0	0	0	0.0%
China	311	376	474	551	445	367	326	0.2%
India	258	250	342	340	395	412	400	1.6%
Other Asia Pacific	243	238	317	379	440	514	569	3.1%
<b>Africa and Middle East</b>	<b>24</b>	<b>24</b>	<b>27</b>	<b>32</b>	<b>38</b>	<b>36</b>	<b>43</b>	<b>2.1%</b>
Africa	15	15	18	22	28	26	34	3.0%
Middle East	10	9	9	10	10	10	10	-0.1%
<b>World</b>	<b>1,337</b>	<b>1,366</b>	<b>1,551</b>	<b>1,696</b>	<b>1,705</b>	<b>1,726</b>	<b>1,732</b>	<b>0.9%</b>

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Note: Totals may not equal sum of components due to independent rounding. "--" means not applicable. Imports, exports, and net trade coal movements do not include coal trade between countries in the same IEO region. As a result, modeled trade might be lower than published historical coal trade when aggregating all imports or exports within an IEO region.

**Table M8. World thermal coal imports by region, High Oil Price case**

million short tons

Region	2022	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2022–2050
<b>Americas</b>	<b>12</b>	<b>16</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>0.5%</b>
United States	2	6	1	1	1	1	1	-4.3%
Canada	2	1	1	1	1	1	1	-2.2%
Mexico	1	1	2	2	2	2	2	3.9%
Brazil	8	8	8	9	10	10	10	0.9%
Other Americas	0	0	0	0	1	1	1	8.0%
<b>Europe and Eurasia</b>	<b>117</b>	<b>102</b>	<b>70</b>	<b>67</b>	<b>62</b>	<b>75</b>	<b>75</b>	<b>-1.6%</b>
Western Europe	114	100	69	66	61	74	74	-1.5%
Russia	0	0	0	0	0	0	0	0.0%
Eastern Europe and Eurasia	3	1	1	1	1	1	1	-3.6%
<b>Asia Pacific</b>	<b>829</b>	<b>826</b>	<b>1,041</b>	<b>1,178</b>	<b>1,185</b>	<b>1,191</b>	<b>1,192</b>	<b>1.3%</b>
Japan	151	149	98	104	102	101	100	-1.5%
South Korea	71	66	71	75	78	78	78	0.3%
Australia and New Zealand	0	0	0	0	0	0	0	0.0%
China	193	209	311	401	319	267	247	0.9%
India	192	186	269	248	277	266	238	0.8%
Other Asia Pacific	222	215	292	351	409	479	529	3.2%
<b>Africa and Middle East</b>	<b>20</b>	<b>19</b>	<b>20</b>	<b>23</b>	<b>26</b>	<b>27</b>	<b>29</b>	<b>1.4%</b>
Africa	13	12	13	16	19	19	22	2.0%
Middle East	7	7	7	7	7	7	7	0.0%
<b>World</b>	<b>978</b>	<b>963</b>	<b>1,144</b>	<b>1,281</b>	<b>1,287</b>	<b>1,307</b>	<b>1,311</b>	<b>1.1%</b>

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Note: Totals may not equal sum of components due to independent rounding. "--" means not applicable. Imports, exports, and net trade coal movements do not include coal trade between countries in the same IEO region. As a result, modeled trade might be lower than published historical coal trade when aggregating all imports or exports within an IEO region.



**Table M9. World metallurgical coal imports by region, High Oil Price case**

million short tons

Region	2022	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2022–2050
<b>Americas</b>	<b>19</b>	<b>20</b>	<b>20</b>	<b>20</b>	<b>18</b>	<b>18</b>	<b>19</b>	<b>0.0%</b>
United States	3	4	3	3	1	1	1	-3.6%
Canada	3	3	3	3	3	3	3	-0.1%
Mexico	0	0	0	0	0	0	0	0.0%
Brazil	13	14	14	14	15	15	15	0.5%
Other Americas	0	0	0	0	0	0	0	0.0%
<b>Europe and Eurasia</b>	<b>51</b>	<b>49</b>	<b>46</b>	<b>46</b>	<b>46</b>	<b>46</b>	<b>48</b>	<b>-0.3%</b>
Western Europe	41	38	35	33	31	28	26	-1.7%
Russia	0	0	0	0	0	0	0	0.0%
Eastern Europe and Eurasia	10	10	11	13	15	18	22	2.9%
<b>Asia Pacific</b>	<b>284</b>	<b>330</b>	<b>334</b>	<b>340</b>	<b>341</b>	<b>345</b>	<b>341</b>	<b>0.6%</b>
Japan	41	39	35	31	27	24	20	-2.5%
South Korea	38	38	39	40	40	40	40	0.2%
Australia and New Zealand	0	0	0	0	0	0	0	0.0%
China	118	166	163	149	126	100	79	-1.4%
India	66	64	72	93	117	146	162	3.2%
Other Asia Pacific	22	23	25	28	31	35	40	2.3%
<b>Africa and Middle East</b>	<b>4</b>	<b>5</b>	<b>7</b>	<b>9</b>	<b>12</b>	<b>10</b>	<b>14</b>	<b>4.1%</b>
Africa	2	3	5	7	9	7	12	6.2%
Middle East	2	2	2	2	2	2	2	-0.3%
<b>World</b>	<b>359</b>	<b>403</b>	<b>407</b>	<b>415</b>	<b>418</b>	<b>419</b>	<b>421</b>	<b>0.6%</b>

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run hp\_230822.081357 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. "--" means not applicable. Imports, exports, and net trade coal movements do not include coal trade between countries in the same IEO region. As a result, modeled trade might be lower than published historical coal trade when aggregating all imports or exports within an IEO region.

**Table M10. World coal exports by region, High Oil Price case**

million short tons

Region	2022	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2022–2050
<b>Americas</b>	<b>238</b>	<b>277</b>	<b>260</b>	<b>278</b>	<b>252</b>	<b>263</b>	<b>271</b>	<b>0.5%</b>
United States	132	167	148	164	152	155	154	0.5%
Canada	41	43	47	50	51	60	64	1.6%
Mexico	2	2	1	1	1	1	1	-1.0%
Brazil	0	0	0	0	0	0	0	0.0%
Other Americas	64	64	63	62	48	46	52	-0.7%
<b>Europe and Eurasia</b>	<b>164</b>	<b>80</b>	<b>153</b>	<b>179</b>	<b>177</b>	<b>183</b>	<b>187</b>	<b>0.5%</b>
Western Europe	0	1	0	1	0	0	0	-0.1%
Russia	161	76	151	175	176	183	187	0.5%
Eastern Europe and Eurasia	3	3	3	2	1	0	0	-100.0%
<b>Asia Pacific</b>	<b>874</b>	<b>930</b>	<b>1,040</b>	<b>1,138</b>	<b>1,180</b>	<b>1,176</b>	<b>1,180</b>	<b>1.1%</b>
Japan	0	0	0	0	0	0	0	0.0%
South Korea	0	0	0	0	0	0	0	0.0%
Australia and New Zealand	311	396	415	451	473	492	507	1.8%
China	0	0	0	0	0	0	0	0.0%
India	0	0	0	0	0	0	0	0.0%
Other Asia Pacific	563	534	625	687	707	684	673	0.6%
<b>Africa and Middle East</b>	<b>61</b>	<b>79</b>	<b>97</b>	<b>102</b>	<b>96</b>	<b>104</b>	<b>95</b>	<b>1.6%</b>
Africa	61	79	97	102	96	104	95	1.6%
Middle East	0	0	0	0	0	0	0	0.0%
<b>World</b>	<b>1,337</b>	<b>1,366</b>	<b>1,551</b>	<b>1,696</b>	<b>1,705</b>	<b>1,726</b>	<b>1,732</b>	<b>0.9%</b>

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run hp\_230822.081357 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. "--" means not applicable. Imports, exports, and net trade coal movements do not include coal trade between countries in the same IEO region. As a result, modeled trade might be lower than published historical coal trade when aggregating all imports or exports within an IEO region.

**Table M11. World thermal coal exports by region, High Oil Price case**

million short tons

Region	2022	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2022–2050
<b>Americas</b>	<b>132</b>	<b>158</b>	<b>140</b>	<b>159</b>	<b>137</b>	<b>140</b>	<b>143</b>	<b>0.3%</b>
United States	67	89	68	85	76	80	78	0.5%
Canada	5	8	12	14	15	16	17	4.5%
Mexico	0	0	0	0	0	0	0	7.1%
Brazil	0	0	0	0	0	0	0	0.0%
Other Americas	60	61	60	60	46	44	48	-0.8%
<b>Europe and Eurasia</b>	<b>129</b>	<b>46</b>	<b>118</b>	<b>142</b>	<b>143</b>	<b>153</b>	<b>158</b>	<b>0.7%</b>
Western Europe	0	1	0	1	0	0	0	-0.1%
Russia	129	45	118	140	143	153	158	0.7%
Eastern Europe and Eurasia	0	0	0	0	0	0	0	0.0%
<b>Asia Pacific</b>	<b>663</b>	<b>686</b>	<b>795</b>	<b>885</b>	<b>917</b>	<b>911</b>	<b>915</b>	<b>1.2%</b>
Japan	0	0	0	0	0	0	0	0.0%
South Korea	0	0	0	0	0	0	0	0.0%
Australia and New Zealand	140	193	212	241	253	270	286	2.6%
China	0	0	0	0	0	0	0	0.0%
India	0	0	0	0	0	0	0	0.0%
Other Asia Pacific	523	493	583	644	664	641	630	0.7%
<b>Africa and Middle East</b>	<b>54</b>	<b>73</b>	<b>90</b>	<b>95</b>	<b>90</b>	<b>104</b>	<b>95</b>	<b>2.0%</b>
Africa	54	73	90	95	90	104	95	2.0%
Middle East	0	0	0	0	0	0	0	0.0%
<b>World</b>	<b>978</b>	<b>963</b>	<b>1,144</b>	<b>1,281</b>	<b>1,287</b>	<b>1,307</b>	<b>1,311</b>	<b>1.1%</b>

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run hp\_230822.081357 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. "--" means not applicable. Imports, exports, and net trade coal movements do not include coal trade between countries in the same IEO region. As a result, modeled trade might be lower than published historical coal trade when aggregating all imports or exports within an IEO region.

**Table M12. World metallurgical coal exports by region, High Oil Price case**

million short tons

Region	2022	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2022–2050
<b>Americas</b>	<b>106</b>	<b>119</b>	<b>120</b>	<b>118</b>	<b>115</b>	<b>123</b>	<b>128</b>	<b>0.7%</b>
United States	65	78	80	79	76	76	76	0.6%
Canada	36	36	36	36	36	44	47	1.0%
Mexico	2	2	1	1	1	1	1	-1.0%
Brazil	0	0	0	0	0	0	0	0.0%
Other Americas	3	3	3	3	2	3	4	0.4%
<b>Europe and Eurasia</b>	<b>36</b>	<b>34</b>	<b>35</b>	<b>37</b>	<b>34</b>	<b>31</b>	<b>29</b>	<b>-0.7%</b>
Western Europe	0	0	0	0	0	0	0	0.0%
Russia	32	31	32	35	33	30	29	-0.4%
Eastern Europe and Eurasia	3	3	3	2	1	0	0	-100.0%
<b>Asia Pacific</b>	<b>211</b>	<b>244</b>	<b>245</b>	<b>253</b>	<b>263</b>	<b>265</b>	<b>265</b>	<b>0.8%</b>
Japan	0	0	0	0	0	0	0	0.0%
South Korea	0	0	0	0	0	0	0	0.0%
Australia and New Zealand	171	203	203	210	220	222	222	0.9%
China	0	0	0	0	0	0	0	0.0%
India	0	0	0	0	0	0	0	0.0%
Other Asia Pacific	40	41	42	43	43	43	43	0.3%
<b>Africa and Middle East</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>6</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>-100.0%</b>
Africa	7	7	7	6	6	0	0	-100.0%
Middle East	0	0	0	0	0	0	0	0.0%
<b>World</b>	<b>359</b>	<b>403</b>	<b>407</b>	<b>415</b>	<b>418</b>	<b>419</b>	<b>421</b>	<b>0.6%</b>

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run hp\_230822.081357 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. "--" means not applicable. Imports, exports, and net trade coal movements do not include coal trade between countries in the same IEO region. As a result, modeled trade might be lower than published historical coal trade when aggregating all imports or exports within an IEO region.

**Table M13. World coal net trade by region, High Oil Price case**

million short tons

Region	2022	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2022–2050
<b>Americas</b>	<b>-207</b>	<b>-241</b>	<b>-228</b>	<b>-245</b>	<b>-219</b>	<b>-230</b>	<b>-238</b>	--
United States	-127	-158	-144	-160	-150	-154	-152	--
Canada	-36	-39	-44	-46	-47	-56	-60	--
Mexico	-1	-1	1	1	1	1	1	--
Brazil	20	22	22	23	25	25	25	0.7%
Other Americas	-64	-64	-63	-62	-48	-46	-51	--
<b>Europe and Eurasia</b>	<b>4</b>	<b>70</b>	<b>-38</b>	<b>-66</b>	<b>-69</b>	<b>-62</b>	<b>-64</b>	--
Western Europe	155	138	104	97	92	102	100	-1.6%
Russia	-161	-76	-151	-175	-176	-183	-187	--
Eastern Europe and Eurasia	10	8	9	12	15	19	23	3.1%
<b>Asia Pacific</b>	<b>240</b>	<b>226</b>	<b>335</b>	<b>381</b>	<b>346</b>	<b>360</b>	<b>353</b>	<b>1.4%</b>
Japan	192	188	133	135	129	124	120	-1.7%
South Korea	109	104	110	114	118	118	118	0.3%
Australia and New Zealand	-311	-396	-415	-451	-473	-492	-507	--
China	311	376	474	551	445	367	326	0.2%
India	258	250	342	340	395	412	400	1.6%
Other Asia Pacific	-319	-296	-308	-308	-267	-170	-103	--
<b>Africa and Middle East</b>	<b>-37</b>	<b>-55</b>	<b>-70</b>	<b>-70</b>	<b>-58</b>	<b>-68</b>	<b>-51</b>	--
Africa	-47	-65	-79	-79	-68	-78	-61	--
Middle East	10	9	9	10	10	10	10	-0.1%
<b>World</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	--

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Note: Totals may not equal sum of components due to independent rounding. "--" means not applicable. Imports, exports, and net trade coal movements do not include coal trade between countries in the same IEO region. As a result, modeled trade might be lower than published historical coal trade when aggregating all imports or exports within an IEO region.

**Table M14. World thermal coal net trade by region, High Oil Price case**

million short tons

Region	2022	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2022–2050
<b>Americas</b>	<b>-120</b>	<b>-142</b>	<b>-128</b>	<b>-146</b>	<b>-123</b>	<b>-126</b>	<b>-129</b>	--
United States	-65	-83	-67	-85	-75	-79	-77	--
Canada	-3	-7	-11	-13	-14	-15	-16	--
Mexico	1	1	2	2	2	2	2	3.9%
Brazil	8	8	8	9	10	10	10	0.9%
Other Americas	-60	-61	-60	-59	-45	-43	-47	--
<b>Europe and Eurasia</b>	<b>-12</b>	<b>56</b>	<b>-49</b>	<b>-75</b>	<b>-81</b>	<b>-77</b>	<b>-83</b>	--
Western Europe	114	99	69	64	61	74	74	-1.5%
Russia	-129	-45	-118	-140	-143	-153	-158	--
Eastern Europe and Eurasia	3	1	1	1	1	1	1	-3.6%
<b>Asia Pacific</b>	<b>166</b>	<b>140</b>	<b>246</b>	<b>294</b>	<b>268</b>	<b>280</b>	<b>277</b>	<b>1.8%</b>
Japan	151	149	98	104	102	101	100	-1.5%
South Korea	71	66	71	75	78	78	78	0.3%
Australia and New Zealand	-140	-193	-212	-241	-253	-270	-286	--
China	193	209	311	401	319	267	247	0.9%
India	192	186	269	248	277	266	238	0.8%
Other Asia Pacific	-301	-277	-291	-293	-255	-162	-100	--
<b>Africa and Middle East</b>	<b>-34</b>	<b>-54</b>	<b>-70</b>	<b>-73</b>	<b>-64</b>	<b>-77</b>	<b>-65</b>	--
Africa	-42	-61	-77	-80	-71	-85	-73	--
Middle East	7	7	7	7	7	7	7	0.0%
<b>World</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	--

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**Table M15. World metallurgical coal net trade by region, High Oil Price case**

million short tons

Region	2022	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2022–2050
<b>Americas</b>	<b>-87</b>	<b>-99</b>	<b>-100</b>	<b>-98</b>	<b>-96</b>	<b>-104</b>	<b>-109</b>	<b>--</b>
United States	-62	-75	-77	-76	-75	-75	-75	--
Canada	-33	-33	-33	-33	-33	-41	-44	--
Mexico	-2	-2	-1	-1	-1	-1	-1	--
Brazil	13	14	14	14	15	15	15	0.5%
Other Americas	-3	-3	-3	-3	-2	-3	-4	--
<b>Europe and Eurasia</b>	<b>16</b>	<b>15</b>	<b>11</b>	<b>9</b>	<b>12</b>	<b>15</b>	<b>19</b>	<b>0.7%</b>
Western Europe	41	38	35	33	31	28	26	-1.7%
Russia	-32	-31	-32	-35	-33	-30	-29	--
Eastern Europe and Eurasia	7	7	8	11	14	18	22	4.3%
<b>Asia Pacific</b>	<b>73</b>	<b>86</b>	<b>89</b>	<b>87</b>	<b>78</b>	<b>80</b>	<b>76</b>	<b>0.1%</b>
Japan	41	39	35	31	27	24	20	-2.5%
South Korea	38	38	39	40	40	40	40	0.2%
Australia and New Zealand	-171	-203	-203	-210	-220	-222	-222	--
China	118	166	163	149	126	100	79	-1.4%
India	66	64	72	93	117	146	162	3.2%
Other Asia Pacific	-18	-19	-17	-15	-12	-8	-3	--
<b>Africa and Middle East</b>	<b>-2</b>	<b>-2</b>	<b>0</b>	<b>3</b>	<b>6</b>	<b>9</b>	<b>14</b>	<b>--</b>
Africa	-5	-4	-2	0	4	7	12	--
Middle East	2	2	2	2	2	2	2	-0.3%
<b>World</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>7.5%</b>

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run hp\_230822.081357 and Annual Energy Outlook 2023 (March 2023), [www.eia.gov/aeo](http://www.eia.gov/aeo)

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