

Table M1. World coal production by region, Reference case

million short tons

Region	2022	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2022–2050
Americas	772	723	494	513	513	522	510	-1.5%
United States	617	568	332	333	323	314	293	-2.6%
Canada	61	55	50	52	53	63	66	0.3%
Mexico	8	8	12	13	13	13	14	1.9%
Brazil	4	5	4	5	7	5	5	0.2%
Other Americas	81	87	97	110	117	127	133	1.8%
Europe and Eurasia	1,015	983	912	945	941	1,011	1,048	0.1%
Western Europe	486	476	376	390	378	434	458	-0.2%
Russia	399	382	405	416	421	431	440	0.3%
Eastern Europe and Eurasia	129	125	131	140	142	147	149	0.5%
Asia Pacific	6,469	6,413	6,750	6,878	6,829	6,821	6,895	0.2%
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	425	483	515	560	575	600	610	1.3%
China	4,366	4,189	4,053	3,895	3,707	3,542	3,489	-0.8%
India	812	896	1,124	1,247	1,314	1,402	1,443	2.1%
Other Asia Pacific	864	843	1,056	1,173	1,230	1,274	1,349	1.6%
Africa and Middle East	209	223	276	312	320	354	361	2.0%
Africa	207	221	273	309	318	351	358	2.0%
Middle East	2	2	2	2	2	2	3	1.0%
World	8,465	8,343	8,432	8,648	8,603	8,708	8,813	0.1%

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

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

Table M2. World thermal coal production by region, Reference case

million short tons

Region	2022	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2022–2050
Americas	643	583	353	371	373	375	359	-2.1%
United States	536	475	238	238	231	223	203	-3.4%
Canada	26	19	14	17	17	19	20	-1.0%
Mexico	3	3	7	7	7	7	7	3.8%
Brazil	4	5	4	5	7	5	5	0.2%
Other Americas	75	81	91	105	111	121	124	1.8%
Europe and Eurasia	863	830	753	779	773	842	878	0.1%
Western Europe	468	457	357	370	358	414	438	-0.2%
Russia	284	265	284	289	292	301	310	0.3%
Eastern Europe and Eurasia	111	107	113	121	123	127	130	0.6%
Asia Pacific	5,712	5,693	6,098	6,286	6,280	6,315	6,417	0.4%
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	250	276	307	345	350	373	383	1.5%
China	3,879	3,772	3,707	3,618	3,483	3,363	3,353	-0.5%
India	763	847	1,075	1,198	1,265	1,353	1,381	2.1%
Other Asia Pacific	819	796	1,007	1,123	1,179	1,223	1,297	1.7%
Africa and Middle East	200	214	266	302	310	344	350	2.0%
Africa	200	213	266	302	310	343	349	2.0%
Middle East	0	0	0	0	0	0	0	2.2%
World	7,419	7,320	7,471	7,738	7,737	7,875	8,003	0.3%

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

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

Table M3. World metallurgical coal production by region, Reference case

million short tons

Region	2022	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2022–2050
Americas	129	140	141	143	140	147	152	0.6%
United States	82	93	94	95	92	91	90	0.4%
Canada	36	36	36	36	36	44	47	1.0%
Mexico	6	5	6	6	6	6	6	0.6%
Brazil	0	0	0	0	0	0	0	0.0%
Other Americas	6	6	6	6	6	6	8	1.1%
Europe and Eurasia	151	153	159	166	168	170	170	0.4%
Western Europe	18	18	19	20	20	20	20	0.4%
Russia	116	117	121	127	129	130	130	0.4%
Eastern Europe and Eurasia	17	18	18	19	19	19	20	0.4%
Asia Pacific	757	720	652	591	549	507	478	-1.6%
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	225	227	227	0.9%
China	487	417	346	277	224	179	136	-4.5%
India	49	49	49	49	49	49	62	0.9%
Other Asia Pacific	45	47	49	50	51	52	53	0.5%
Africa and Middle East	9	9	10	10	10	10	11	0.7%
Africa	7	7	8	8	8	8	9	0.6%
Middle East	2	2	2	2	2	2	2	0.8%
World	1,046	1,023	961	910	866	833	810	-0.9%

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

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

Table M4. World coal consumption by region, Reference case

million short tons

Region	2022	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2022–2050
Americas	573	511	297	312	310	307	291	-2.4%
United States	499	444	223	219	193	180	162	-3.9%
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	46	66	78	79	5.6%
Europe and Eurasia	1,019	996	854	856	848	921	959	-0.2%
Western Europe	642	614	481	487	471	533	560	-0.5%
Russia	238	248	232	219	222	225	227	-0.2%
Eastern Europe and Eurasia	138	134	141	149	156	164	172	0.8%
Asia Pacific	6,696	6,665	7,085	7,240	7,201	7,198	7,256	0.3%
Japan	194	191	134	135	130	125	121	-1.7%
South Korea	110	109	113	117	119	121	121	0.3%
Australia and New Zealand	100	92	105	114	115	116	116	0.5%
China	4,677	4,565	4,530	4,432	4,169	3,938	3,812	-0.7%
India	1,063	1,141	1,461	1,573	1,683	1,800	1,869	2.0%
Other Asia Pacific	551	567	743	869	985	1,099	1,217	2.9%
Africa and Middle East	177	170	196	240	244	282	307	2.0%
Africa	165	159	184	228	232	270	295	2.1%
Middle East	12	11	11	12	12	12	12	0.1%
World	8,465	8,343	8,432	8,648	8,603	8,708	8,813	0.1%

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

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

Table M5. World thermal coal consumption by region, Reference case

million short tons

Region	2022	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2022–2050
Americas	535	471	256	271	269	266	250	-2.7%
United States	483	427	206	202	177	164	147	-4.1%
Canada	22	12	2	3	3	3	3	-7.1%
Mexico	3	4	9	10	10	10	10	4.1%
Brazil	12	13	12	14	17	14	14	0.7%
Other Americas	15	16	26	43	62	74	75	5.9%
Europe and Eurasia	852	828	685	682	670	738	771	-0.4%
Western Europe	582	557	427	435	420	485	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%
Asia Pacific	5,862	5,857	6,344	6,558	6,570	6,609	6,700	0.5%
Japan	153	152	99	104	103	102	101	-1.5%
South Korea	72	71	74	77	80	81	81	0.4%
Australia and New Zealand	96	88	101	109	110	110	111	0.5%
China	4,068	3,980	4,019	4,001	3,815	3,655	3,595	-0.4%
India	948	1,028	1,340	1,432	1,517	1,606	1,646	2.0%
Other Asia Pacific	524	538	712	834	946	1,055	1,167	2.9%
Africa and Middle East	170	163	186	227	228	263	282	1.8%
Africa	163	155	179	220	220	255	275	1.9%
Middle East	8	7	7	7	8	8	8	0.1%
World	7,419	7,320	7,471	7,738	7,737	7,875	8,003	0.3%

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

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

Table M6. World metallurgical coal consumption by region, Reference case

million short tons

Region	2022	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2022–2050
Americas	38	40	41	41	41	41	41	0.3%
United States	16	18	17	17	16	15	15	-0.3%
Canada	3	3	3	3	3	3	3	-0.1%
Mexico	4	4	4	4	5	5	5	0.8%
Brazil	13	13	14	14	14	15	15	0.5%
Other Americas	2	3	3	3	3	4	4	1.9%
Europe and Eurasia	167	168	169	173	178	183	188	0.4%
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	42	2.0%
Asia Pacific	834	808	742	683	631	589	556	-1.4%
Japan	41	39	35	31	27	23	20	-2.5%
South Korea	38	38	39	40	40	40	40	0.2%
Australia and New Zealand	4	5	5	5	5	5	6	1.1%
China	609	585	511	431	353	283	218	-3.6%
India	115	113	121	142	166	194	223	2.4%
Other Asia Pacific	27	29	31	35	39	44	50	2.2%
Africa and Middle East	7	8	10	12	16	19	24	4.7%
Africa	3	4	6	8	11	15	20	7.5%
Middle East	4	4	4	4	4	4	4	0.2%
World	1,046	1,023	961	910	866	833	810	-0.9%

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

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

Table M7. World coal imports by region, Reference case

million short tons

Region	2022	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2022–2050
Americas	31	31	32	34	33	33	34	0.3%
United States	5	5	4	4	2	1	2	-3.2%
Canada	5	4	4	4	4	4	4	-0.8%
Mexico	1	1	2	3	3	3	3	5.0%
Brazil	20	21	22	23	24	24	25	0.7%
Other Americas	0	0	0	0	0	0	0	6.3%
Europe and Eurasia	168	150	117	112	109	117	124	-1.1%
Western Europe	155	138	105	98	93	99	101	-1.5%
Russia	0	0	0	0	0	0	0	0.0%
Eastern Europe and Eurasia	13	12	12	14	16	19	23	2.1%
Asia Pacific	1,108	1,165	1,381	1,493	1,518	1,534	1,554	1.2%
Japan	193	190	133	134	129	124	120	-1.7%
South Korea	109	108	111	115	118	119	119	0.3%
Australia and New Zealand	0	0	0	0	0	0	0	0.0%
China	311	376	476	537	462	396	323	0.1%
India	251	245	337	327	369	398	426	1.9%
Other Asia Pacific	243	246	324	380	440	497	566	3.1%
Africa and Middle East	24	24	27	33	36	37	42	1.9%
Africa	15	15	18	23	26	27	32	2.8%
Middle East	10	9	9	9	10	10	9	-0.1%
World	1,332	1,370	1,558	1,671	1,696	1,721	1,754	1.0%

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

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, Reference case

million short tons

Region	2022	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2022–2050
Americas	12	12	12	14	15	14	15	0.7%
United States	2	2	1	1	1	1	1	-3.9%
Canada	2	1	1	1	1	1	1	-2.2%
Mexico	1	1	2	3	3	3	3	5.0%
Brazil	8	8	8	9	10	10	10	0.9%
Other Americas	0	0	0	0	0	0	0	6.3%
Europe and Eurasia	117	100	71	66	63	72	77	-1.5%
Western Europe	114	99	70	65	62	71	76	-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%
Asia Pacific	820	834	1,045	1,148	1,173	1,186	1,211	1.4%
Japan	152	151	98	103	102	101	100	-1.5%
South Korea	71	70	72	76	78	79	79	0.4%
Australia and New Zealand	0	0	0	0	0	0	0	0.0%
China	189	209	312	383	333	292	241	0.9%
India	185	181	265	234	251	253	265	1.3%
Other Asia Pacific	222	223	299	352	409	462	526	3.1%
Africa and Middle East	20	19	20	24	24	27	29	1.3%
Africa	13	12	13	17	17	20	21	1.9%
Middle East	7	7	7	7	7	7	7	0.0%
World	969	964	1,149	1,252	1,275	1,299	1,331	1.1%

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

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, Reference case

million short tons

Region	2022	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2022–2050
Americas	19	19	20	20	18	18	19	0.0%
United States	3	4	3	3	1	1	2	-2.8%
Canada	3	3	3	3	3	3	3	-0.1%
Mexico	0	0	0	0	0	0	0	0.0%
Brazil	13	13	14	14	14	15	15	0.5%
Other Americas	0	0	0	0	0	0	0	0.0%
Europe and Eurasia	51	49	46	45	46	46	48	-0.3%
Western Europe	41	39	35	33	31	28	26	-1.7%
Russia	0	0	0	0	0	0	0	0.0%
Eastern Europe and Eurasia	10	11	11	13	15	18	22	2.9%
Asia Pacific	288	332	336	345	345	348	343	0.6%
Japan	41	39	35	31	27	23	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	122	168	164	154	129	104	82	-1.4%
India	66	64	73	93	117	145	161	3.2%
Other Asia Pacific	22	23	25	28	31	35	40	2.3%
Africa and Middle East	4	5	7	9	12	10	13	3.9%
Africa	2	3	5	7	9	8	11	6.0%
Middle East	2	2	2	2	2	2	2	-0.3%
World	363	405	409	419	421	422	423	0.5%

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

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, Reference case

million short tons

Region	2022	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2022–2050
Americas	230	243	229	235	235	247	252	0.3%
United States	124	129	113	118	132	136	133	0.3%
Canada	41	43	48	51	51	61	64	1.6%
Mexico	2	2	1	1	1	1	2	-0.2%
Brazil	0	0	0	0	0	0	0	0.0%
Other Americas	64	68	67	65	51	50	54	-0.6%
Europe and Eurasia	164	137	176	201	202	208	213	0.9%
Western Europe	0	0	0	0	0	0	0	-0.1%
Russia	161	134	173	197	199	206	213	1.0%
Eastern Europe and Eurasia	3	3	3	5	3	2	0	-9.4%
Asia Pacific	881	913	1,046	1,130	1,146	1,157	1,193	1.1%
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	324	391	410	447	461	484	494	1.5%
China	0	0	0	0	0	0	0	0.0%
India	0	0	0	0	0	0	0	0.0%
Other Asia Pacific	557	522	636	683	686	673	699	0.8%
Africa and Middle East	57	76	107	105	112	109	96	1.9%
Africa	57	76	107	105	112	109	96	1.9%
Middle East	0	0	0	0	0	0	0	0.0%
World	1,332	1,370	1,558	1,671	1,696	1,721	1,754	1.0%

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

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, Reference case

million short tons

Region	2022	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2022–2050
Americas	120	123	110	114	119	124	123	0.1%
United States	55	50	33	37	54	59	56	0.1%
Canada	5	8	12	15	16	17	18	4.5%
Mexico	0	0	0	0	0	0	0	6.9%
Brazil	0	0	0	0	0	0	0	0.0%
Other Americas	60	65	64	62	49	47	50	-0.7%
Europe and Eurasia	129	102	139	163	167	176	184	1.3%
Western Europe	0	0	0	0	0	0	0	-0.1%
Russia	129	102	139	160	165	174	184	1.3%
Eastern Europe and Eurasia	0	0	0	2	1	2	0	--
Asia Pacific	670	670	800	877	883	892	928	1.2%
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	153	188	206	236	241	262	272	2.1%
China	0	0	0	0	0	0	0	0.0%
India	0	0	0	0	0	0	0	0.0%
Other Asia Pacific	517	481	594	640	643	630	656	0.9%
Africa and Middle East	50	70	100	99	106	108	96	2.4%
Africa	50	70	100	99	106	108	96	2.4%
Middle East	0	0	0	0	0	0	0	0.0%
World	969	964	1,149	1,252	1,275	1,299	1,331	1.1%

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

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, Reference case

million short tons

Region	2022	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2022–2050
Americas	110	120	120	121	117	124	129	0.6%
United States	69	79	80	82	78	77	77	0.4%
Canada	36	36	36	36	36	44	47	1.0%
Mexico	2	2	1	1	1	1	2	-0.2%
Brazil	0	0	0	0	0	0	0	0.0%
Other Americas	3	3	3	3	2	3	4	0.4%
Europe and Eurasia	36	35	36	38	35	32	29	-0.8%
Western Europe	0	0	0	0	0	0	0	0.0%
Russia	32	32	34	36	34	32	29	-0.4%
Eastern Europe and Eurasia	3	3	3	2	1	0	0	-100.0%
Asia Pacific	211	244	246	253	263	265	265	0.8%
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	204	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%
Africa and Middle East	7	7	7	6	6	1	0	-100.0%
Africa	7	7	7	6	6	1	0	-100.0%
Middle East	0	0	0	0	0	0	0	0.0%
World	363	405	409	419	421	422	423	0.5%

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

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, Reference case

million short tons

Region	2022	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2022–2050
Americas	-199	-212	-197	-201	-202	-215	-219	--
United States	-118	-124	-108	-114	-130	-134	-131	--
Canada	-36	-39	-44	-47	-47	-57	-61	--
Mexico	-1	-1	1	1	2	2	1	--
Brazil	20	21	22	23	24	24	25	0.7%
Other Americas	-64	-68	-67	-64	-51	-49	-53	--
Europe and Eurasia	4	12	-58	-89	-93	-90	-89	--
Western Europe	155	138	105	98	93	99	101	-1.5%
Russia	-161	-134	-173	-197	-199	-206	-213	--
Eastern Europe and Eurasia	10	9	10	9	14	17	23	3.1%
Asia Pacific	227	252	335	363	372	377	361	1.7%
Japan	193	190	133	134	129	124	120	-1.7%
South Korea	109	108	111	115	118	119	119	0.3%
Australia and New Zealand	-324	-391	-410	-447	-461	-484	-494	--
China	311	376	476	537	462	396	323	0.1%
India	251	245	337	327	369	398	426	1.9%
Other Asia Pacific	-313	-276	-312	-304	-245	-176	-133	--
Africa and Middle East	-32	-52	-80	-72	-76	-72	-54	--
Africa	-42	-62	-89	-81	-86	-82	-63	--
Middle East	10	9	9	9	10	10	9	-0.1%
World	0	0	0	0	0	0	0	--

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

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, Reference case

million short tons

Region	2022	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2022–2050
Americas	-108	-111	-97	-100	-104	-109	-109	--
United States	-53	-49	-32	-36	-54	-59	-55	--
Canada	-3	-7	-12	-14	-15	-16	-17	--
Mexico	1	1	2	3	3	3	3	5.0%
Brazil	8	8	8	9	10	10	10	0.9%
Other Americas	-60	-65	-64	-62	-48	-47	-49	--
Europe and Eurasia	-12	-2	-68	-97	-103	-104	-107	--
Western Europe	114	99	70	65	62	71	76	-1.5%
Russia	-129	-102	-139	-160	-165	-174	-184	--
Eastern Europe and Eurasia	3	1	1	-1	0	0	1	-4.3%
Asia Pacific	149	164	246	271	290	294	283	2.3%
Japan	152	151	98	103	102	101	100	-1.5%
South Korea	71	70	72	76	78	79	79	0.4%
Australia and New Zealand	-153	-188	-206	-236	-241	-262	-272	--
China	189	209	312	383	333	292	241	0.9%
India	185	181	265	234	251	253	265	1.3%
Other Asia Pacific	-295	-258	-295	-288	-234	-168	-130	--
Africa and Middle East	-30	-51	-80	-75	-82	-81	-67	--
Africa	-37	-58	-87	-82	-90	-88	-75	--
Middle East	7	7	7	7	7	7	7	0.0%
World	0	0	0	0	0	0	0	--

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

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 M15. World metallurgical coal net trade by region, Reference case

million short tons

Region	2022	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2022–2050
Americas	-91	-100	-100	-101	-98	-106	-110	--
United States	-66	-76	-76	-79	-77	-76	-76	--
Canada	-33	-33	-33	-33	-33	-41	-44	--
Mexico	-2	-2	-1	-1	-1	-1	-2	--
Brazil	13	13	14	14	14	15	15	0.5%
Other Americas	-3	-3	-3	-3	-2	-3	-4	--
Europe and Eurasia	16	14	10	7	11	14	19	0.7%
Western Europe	41	39	35	33	31	28	26	-1.7%
Russia	-32	-32	-34	-36	-34	-32	-29	--
Eastern Europe and Eurasia	7	8	8	11	14	18	22	4.3%
Asia Pacific	77	88	90	91	82	83	78	0.0%
Japan	41	39	35	31	27	23	20	-2.5%
South Korea	38	38	39	40	40	40	40	0.2%
Australia and New Zealand	-171	-203	-204	-210	-220	-222	-222	--
China	122	168	164	154	129	104	82	-1.4%
India	66	64	73	93	117	145	161	3.2%
Other Asia Pacific	-18	-19	-17	-15	-12	-8	-3	--
Africa and Middle East	-2	-2	0	3	6	9	13	--
Africa	-5	-4	-2	0	4	7	11	--
Middle East	2	2	2	2	2	2	2	-0.3%
World	0	0	0	0	0	0	0	3.8%

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

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.