

**Table E1.cap. Electricity installed generating capacity: World, High Economic Growth case**

gigawatts

<b>Fuel</b>	<b>2022</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>	<b>2045</b>	<b>2050</b>	<b>Average annual percentage change, 2022–2050</b>
Liquid fuels	391	378	225	147	114	103	96	-4.9%
Natural gas	1,931	2,046	2,237	2,427	2,741	3,089	3,475	2.1%
Coal	2,271	2,320	2,196	2,249	2,305	2,378	2,433	0.2%
Nuclear	400	425	422	446	453	460	472	0.6%
Renewables	3,297	4,083	5,045	6,166	7,313	8,527	9,722	3.9%
Hydro	1,211	1,319	1,379	1,420	1,447	1,481	1,526	0.8%
Wind	873	1,039	1,362	1,669	2,043	2,322	2,444	3.7%
Geothermal	15	17	27	30	34	34	35	3.1%
Solar	1,019	1,502	2,058	2,820	3,547	4,440	5,457	6.2%
Other	179	206	219	227	243	251	260	1.3%
Battery storage	52	72	133	296	467	877	1,295	12.1%
Pumped hydro	169	200	211	213	213	213	213	0.8%
<b>Total capacity</b>	<b>8,511</b>	<b>9,524</b>	<b>10,468</b>	<b>11,945</b>	<b>13,606</b>	<b>15,646</b>	<b>17,705</b>	<b>2.7%</b>

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run hm\_230821.151836 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 E2.cap. Electricity installed generating capacity: Americas, High Economic Growth case**

gigawatts

<b>Fuel</b>	<b>2022</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>	<b>2045</b>	<b>2050</b>	<b>Average annual percentage change, 2022–2050</b>
Liquid fuels	141	127	87	64	57	54	52	-3.5%
Natural gas	629	657	749	812	859	907	963	1.5%
Coal	227	194	132	128	123	123	123	-2.2%
Nuclear	114	115	111	105	94	91	89	-0.9%
Renewables	788	970	1,278	1,501	1,724	1,937	2,211	3.8%
Hydro	362	376	383	387	389	390	392	0.3%
Wind	200	238	365	430	480	551	621	4.1%
Geothermal	4	4	5	6	6	7	7	1.9%
Solar	159	289	459	613	781	920	1,122	7.2%
Other	62	63	65	66	67	68	69	0.4%
Battery storage	6	19	34	59	100	149	201	13.2%
Pumped hydro	23	23	23	23	23	23	23	0.0%
<b>Total capacity</b>	<b>1,929</b>	<b>2,104</b>	<b>2,414</b>	<b>2,692</b>	<b>2,980</b>	<b>3,283</b>	<b>3,662</b>	<b>2.3%</b>

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run hm\_230821.151836 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 E3.cap. Electricity installed generating capacity: United States, High Economic Growth case**

gigawatts

<b>Fuel</b>	<b>2022</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>	<b>2045</b>	<b>2050</b>	<b>Average annual percentage change, 2022–2050</b>
Liquid fuels	75	60	58	54	53	53	51	-1.4%
Natural gas	445	463	526	568	602	644	689	1.6%
Coal	201	168	112	98	84	79	77	-3.4%
Nuclear	95	96	92	85	78	78	78	-0.7%
Renewables	389	543	829	1,018	1,183	1,301	1,467	4.9%
Hydro	79	79	80	80	80	80	80	0.0%
Wind	145	171	289	334	345	357	378	3.5%
Geothermal	3	3	3	3	4	5	5	2.4%
Solar	125	252	418	561	713	817	961	7.6%
Other	37	38	39	40	41	42	43	0.5%
Battery storage	6	19	34	59	100	147	193	13.0%
Pumped hydro	22	22	22	22	22	22	22	0.0%
<b>Total capacity</b>	<b>1,234</b>	<b>1,370</b>	<b>1,673</b>	<b>1,904</b>	<b>2,122</b>	<b>2,325</b>	<b>2,576</b>	<b>2.7%</b>

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run hm\_230821.151836 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 E4.cap. Electricity installed generating capacity: Canada, High Economic Growth case**

gigawatts

<b>Fuel</b>	<b>2022</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>	<b>2045</b>	<b>2050</b>	<b>Average annual percentage change, 2022–2050</b>
Liquid fuels	4	4	0	0	0	0	0	-13.0%
Natural gas	33	37	56	70	77	79	86	3.5%
Coal	6	6	0	0	0	0	0	-100.0%
Nuclear	14	14	11	10	7	6	4	-4.4%
Renewables	105	109	119	133	158	190	225	2.8%
Hydro	83	86	89	89	89	89	89	0.3%
Wind	16	17	23	37	62	94	129	7.8%
Geothermal	0	0	0	0	0	0	0	0.0%
Solar	4	4	4	4	4	4	4	0.0%
Other	2	2	3	3	3	3	3	1.3%
Battery storage	0	0	0	0	0	0	0	--
Pumped hydro	0	0	0	0	0	0	0	0.0%
<b>Total capacity</b>	<b>161</b>	<b>170</b>	<b>187</b>	<b>213</b>	<b>243</b>	<b>275</b>	<b>316</b>	<b>2.4%</b>

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run hm\_230821.151836

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

**Table E5.cap. Electricity installed generating capacity: Mexico, High Economic Growth case**

gigawatts

<b>Fuel</b>	<b>2022</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>	<b>2045</b>	<b>2050</b>	<b>Average annual percentage change, 2022–2050</b>
Liquid fuels	13	14	7	4	1	0	0	-19.0%
Natural gas	44	45	46	54	62	68	72	1.7%
Coal	9	9	9	9	9	9	9	0.0%
Nuclear	2	2	3	4	3	2	2	1.5%
Renewables	30	33	37	42	49	64	81	3.6%
Hydro	13	14	15	15	15	15	16	0.7%
Wind	8	8	8	8	8	8	8	0.0%
Geothermal	1	1	1	1	1	1	1	0.0%
Solar	8	9	11	17	23	38	55	7.4%
Other	1	1	1	1	1	1	1	0.0%
Battery storage	0	0	0	0	0	0	0	0.0%
Pumped hydro	0	0	0	0	0	0	0	0.0%
<b>Total capacity</b>	<b>98</b>	<b>102</b>	<b>101</b>	<b>113</b>	<b>124</b>	<b>143</b>	<b>163</b>	<b>1.8%</b>

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run hm\_230821.151836

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

**Table E6.cap. Electricity installed generating capacity: Brazil, High Economic Growth case**

gigawatts

<b>Fuel</b>	<b>2022</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>	<b>2045</b>	<b>2050</b>	<b>Average annual percentage change, 2022–2050</b>
Liquid fuels	14	14	6	1	0	0	0	-11.5%
Natural gas	24	27	27	22	19	18	18	-1.1%
Coal	6	6	6	6	6	6	6	0.0%
Nuclear	2	2	3	3	3	2	2	0.9%
Renewables	161	173	175	180	191	211	225	1.2%
Hydro	112	117	117	117	117	117	117	0.2%
Wind	20	27	28	33	44	65	79	5.1%
Geothermal	0	0	0	0	0	0	0	0.0%
Solar	13	13	13	13	13	13	13	0.0%
Other	16	16	16	16	16	16	16	0.0%
Battery storage	0	0	0	0	0	1	9	--
Pumped hydro	0	0	0	0	0	0	0	0.0%
<b>Total capacity</b>	<b>207</b>	<b>222</b>	<b>217</b>	<b>212</b>	<b>220</b>	<b>240</b>	<b>261</b>	<b>0.8%</b>

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run hm\_230821.151836

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

**Table E7.cap. Electricity installed generating capacity: Other Americas, High Economic Growth case**

gigawatts

<b>Fuel</b>	<b>2022</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>	<b>2045</b>	<b>2050</b>	<b>Average annual percentage change, 2022–2050</b>
Liquid fuels	35	35	16	6	2	0	0	-20.2%
Natural gas	84	85	94	99	98	98	98	0.6%
Coal	6	6	6	15	24	30	32	6.2%
Nuclear	2	2	2	2	2	2	2	0.8%
Renewables	103	112	118	128	143	170	213	2.6%
Hydro	75	79	83	86	88	89	90	0.7%
Wind	12	15	16	18	21	26	26	2.9%
Geothermal	1	1	1	1	1	1	1	2.0%
Solar	10	11	13	18	28	48	90	8.2%
Other	5	5	5	6	6	6	6	0.1%
Battery storage	0	0	0	0	0	0	0	0.0%
Pumped hydro	1	1	1	1	1	1	1	0.0%
<b>Total capacity</b>	<b>230</b>	<b>240</b>	<b>238</b>	<b>251</b>	<b>271</b>	<b>301</b>	<b>346</b>	<b>1.5%</b>

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run hm\_230821.151836

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

**Table E8.cap. Electricity installed generating capacity: Europe and Eurasia, High Economic Growth case**

gigawatts

<b>Fuel</b>	<b>2022</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>	<b>2045</b>	<b>2050</b>	<b>Average annual percentage change, 2022–2050</b>
Liquid fuels	77	78	54	42	36	35	35	-2.8%
Natural gas	474	485	523	544	578	613	672	1.3%
Coal	269	272	228	228	228	228	229	-0.6%
Nuclear	168	173	151	156	156	156	157	-0.3%
Renewables	782	908	1,016	1,072	1,145	1,299	1,487	2.3%
Hydro	272	297	300	301	301	302	302	0.4%
Wind	245	283	324	329	336	351	374	1.5%
Geothermal	3	6	8	8	8	8	8	3.1%
Solar	206	247	300	345	404	535	694	4.4%
Other	56	75	84	89	96	102	110	2.4%
Battery storage	0	0	0	17	34	92	150	--
Pumped hydro	50	51	52	52	52	52	52	0.1%
<b>Total capacity</b>	<b>1,820</b>	<b>1,967</b>	<b>2,024</b>	<b>2,111</b>	<b>2,228</b>	<b>2,475</b>	<b>2,781</b>	<b>1.5%</b>

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run hm\_230821.151836

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



**Table E9.cap. Electricity installed generating capacity: Western Europe, High Economic Growth case**

gigawatts

<b>Fuel</b>	<b>2022</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>	<b>2045</b>	<b>2050</b>	<b>Average annual percentage change, 2022–2050</b>
Liquid fuels	60	61	42	31	25	24	24	-3.2%
Natural gas	299	305	305	285	272	263	259	-0.5%
Coal	171	171	120	120	120	120	120	-1.2%
Nuclear	124	127	107	108	109	109	109	-0.5%
Renewables	683	802	909	964	1,037	1,187	1,375	2.5%
Hydro	191	214	217	217	217	217	217	0.5%
Wind	241	277	318	323	329	345	367	1.5%
Geothermal	3	6	8	8	8	8	8	3.1%
Solar	193	233	286	331	390	518	677	4.6%
Other	55	71	80	86	92	99	106	2.4%
Battery storage	0	0	0	17	34	92	150	--
Pumped hydro	47	48	48	48	48	48	48	0.1%
<b>Total capacity</b>	<b>1,384</b>	<b>1,514</b>	<b>1,532</b>	<b>1,574</b>	<b>1,645</b>	<b>1,844</b>	<b>2,084</b>	<b>1.5%</b>

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run hm\_230821.151836

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

**Table E10.cap. Electricity installed generating capacity: Russia, High Economic Growth case**

gigawatts

<b>Fuel</b>	<b>2022</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>	<b>2045</b>	<b>2050</b>	<b>Average annual percentage change, 2022–2050</b>
Liquid fuels	7	7	3	1	1	1	0	-9.7%
Natural gas	136	139	172	200	224	244	276	2.6%
Coal	55	55	55	55	55	55	55	0.0%
Nuclear	30	31	32	32	32	32	31	0.2%
Renewables	59	62	62	62	62	62	62	0.2%
Hydro	54	54	54	54	54	54	54	0.0%
Wind	1	3	3	3	3	3	3	2.4%
Geothermal	0	0	0	0	0	0	0	0.4%
Solar	2	2	2	2	2	2	2	0.0%
Other	1	3	3	3	3	3	3	2.5%
Battery storage	0	0	0	0	0	0	0	--
Pumped hydro	1	1	1	1	1	1	1	0.0%
<b>Total capacity</b>	<b>288</b>	<b>295</b>	<b>324</b>	<b>351</b>	<b>375</b>	<b>395</b>	<b>425</b>	<b>1.4%</b>

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run hm\_230821.151836

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

**Table E11.cap. Electricity installed generating capacity: Eastern Europe and Eurasia, High Economic Growth case**

gigawatts

<b>Fuel</b>	<b>2022</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>	<b>2045</b>	<b>2050</b>	<b>Average annual percentage change, 2022–2050</b>
Liquid fuels	10	10	10	10	10	10	10	0.0%
Natural gas	38	41	47	59	81	106	137	4.7%
Coal	43	46	53	53	53	53	54	0.8%
Nuclear	15	15	12	16	16	16	17	0.6%
Renewables	40	44	45	47	47	50	50	0.8%
Hydro	26	29	29	30	30	30	30	0.5%
Wind	2	3	3	4	4	4	4	2.0%
Geothermal	0	0	0	0	0	0	0	--
Solar	11	12	12	12	12	15	16	1.1%
Other	0	1	1	1	1	1	1	2.9%
Battery storage	0	0	0	0	0	0	0	0.0%
Pumped hydro	2	2	2	2	2	2	2	0.6%
<b>Total capacity</b>	<b>148</b>	<b>158</b>	<b>168</b>	<b>186</b>	<b>208</b>	<b>236</b>	<b>271</b>	<b>2.2%</b>

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run hm\_230821.151836

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

**Table E12.cap. Electricity installed generating capacity: Asia Pacific, High Economic Growth case**

gigawatts

<b>Fuel</b>	<b>2022</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>	<b>2045</b>	<b>2050</b>	<b>Average annual percentage change, 2022–2050</b>
Liquid fuels	93	93	45	25	15	11	9	-8.0%
Natural gas	460	522	581	627	796	997	1,203	3.5%
Coal	1,725	1,803	1,785	1,843	1,903	1,977	2,030	0.6%
Nuclear	108	126	146	168	183	193	206	2.3%
Renewables	1,633	2,045	2,517	3,316	4,125	4,899	5,549	4.5%
Hydro	523	577	620	649	666	689	721	1.2%
Wind	417	493	630	865	1,181	1,373	1,403	4.4%
Geothermal	6	6	9	10	11	11	11	2.0%
Solar	628	904	1,191	1,725	2,192	2,750	3,338	6.1%
Other	59	65	66	67	75	75	76	0.9%
Battery storage	46	53	99	220	332	636	943	11.4%
Pumped hydro	91	120	131	133	133	133	133	1.3%
<b>Total capacity</b>	<b>4,158</b>	<b>4,761</b>	<b>5,303</b>	<b>6,332</b>	<b>7,487</b>	<b>8,845</b>	<b>10,074</b>	<b>3.2%</b>

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run hm\_230821.151836

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

**Table E13.cap. Electricity installed generating capacity: Japan, High Economic Growth case**

gigawatts

<b>Fuel</b>	<b>2022</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>	<b>2045</b>	<b>2050</b>	<b>Average annual percentage change, 2022–2050</b>
Liquid fuels	35	35	19	11	7	7	7	-5.6%
Natural gas	95	101	101	89	79	71	71	-1.1%
Coal	64	65	42	42	42	56	59	-0.3%
Nuclear	14	20	25	25	21	18	18	0.9%
Renewables	108	112	120	133	148	162	175	1.7%
Hydro	22	22	22	22	22	22	22	0.0%
Wind	4	4	7	13	21	29	36	7.9%
Geothermal	0	0	0	0	0	0	0	0.0%
Solar	76	81	86	93	99	105	111	1.3%
Other	5	5	5	5	5	5	5	0.1%
Battery storage	0	0	0	0	0	0	0	0.0%
Pumped hydro	28	28	28	28	28	28	28	0.0%
<b>Total capacity</b>	<b>344</b>	<b>362</b>	<b>334</b>	<b>328</b>	<b>325</b>	<b>341</b>	<b>357</b>	<b>0.1%</b>

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run hm\_230821.151836

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

**Table E14.cap. Electricity installed generating capacity: South Korea, High Economic Growth case**

gigawatts

<b>Fuel</b>	<b>2022</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>	<b>2045</b>	<b>2050</b>	<b>Average annual percentage change, 2022–2050</b>
Liquid fuels	5	5	2	2	2	2	2	-3.7%
Natural gas	43	46	46	41	38	38	38	-0.5%
Coal	43	46	46	46	46	46	46	0.3%
Nuclear	27	31	31	31	31	29	29	0.2%
Renewables	22	28	37	56	75	92	99	5.6%
Hydro	2	2	2	2	2	2	2	1.1%
Wind	2	8	16	36	55	71	78	14.2%
Geothermal	0	0	0	0	0	0	0	--
Solar	16	16	16	16	16	16	16	0.0%
Other	2	2	2	2	2	2	4	1.4%
Battery storage	0	0	0	0	0	0	1	--
Pumped hydro	5	5	5	5	5	5	5	0.0%
<b>Total capacity</b>	<b>144</b>	<b>159</b>	<b>165</b>	<b>180</b>	<b>196</b>	<b>211</b>	<b>219</b>	<b>1.5%</b>

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run hm\_230821.151836

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

**Table E15.cap. Electricity installed generating capacity: Australia and New Zealand, High Economic Growth case**

gigawatts

<b>Fuel</b>	<b>2022</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>	<b>2045</b>	<b>2050</b>	<b>Average annual percentage change, 2022–2050</b>
Liquid fuels	2	2	0	0	0	0	0	-11.7%
Natural gas	25	25	25	20	17	18	18	-1.1%
Coal	28	28	28	28	28	28	28	0.0%
Nuclear	0	0	0	0	0	0	0	0.0%
Renewables	48	56	63	73	86	100	115	3.1%
Hydro	12	14	16	16	16	16	16	1.1%
Wind	11	16	19	25	27	28	29	3.3%
Geothermal	1	1	1	1	1	1	1	0.0%
Solar	23	24	26	31	41	54	68	4.0%
Other	1	1	1	1	1	1	1	0.1%
Battery storage	0	0	0	0	1	5	10	--
Pumped hydro	2	4	4	4	4	4	4	3.1%
<b>Total capacity</b>	<b>105</b>	<b>115</b>	<b>120</b>	<b>126</b>	<b>137</b>	<b>155</b>	<b>175</b>	<b>1.8%</b>

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run hm\_230821.151836

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

**Table E16.cap. Electricity installed generating capacity: China, High Economic Growth case**

gigawatts

<b>Fuel</b>	<b>2022</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>	<b>2045</b>	<b>2050</b>	<b>Average annual percentage change, 2022–2050</b>
Liquid fuels	5	5	1	0	0	0	0	-16.1%
Natural gas	106	145	179	260	440	648	855	7.7%
Coal	1,164	1,203	1,207	1,207	1,207	1,207	1,207	0.1%
Nuclear	55	59	77	96	114	129	142	3.5%
Renewables	1,165	1,422	1,686	2,078	2,419	2,611	2,651	3.0%
Hydro	359	375	398	412	425	437	447	0.8%
Wind	356	380	447	549	739	905	920	3.4%
Geothermal	0	0	0	0	0	0	0	0.1%
Solar	420	637	811	1,088	1,225	1,239	1,255	4.0%
Other	30	30	30	30	30	30	30	0.0%
Battery storage	46	50	59	82	95	121	131	3.8%
Pumped hydro	47	72	83	84	84	84	84	2.1%
<b>Total capacity</b>	<b>2,587</b>	<b>2,956</b>	<b>3,291</b>	<b>3,808</b>	<b>4,359</b>	<b>4,801</b>	<b>5,070</b>	<b>2.4%</b>

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run hm\_230821.151836

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



**Table E17.cap. Electricity installed generating capacity: India, High Economic Growth case**

gigawatts

<b>Fuel</b>	<b>2022</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>	<b>2045</b>	<b>2050</b>	<b>Average annual percentage change, 2022–2050</b>
Liquid fuels	6	6	1	0	0	0	0	-14.5%
Natural gas	31	31	55	60	66	66	66	2.8%
Coal	291	310	310	327	349	349	349	0.7%
Nuclear	7	7	9	11	12	12	12	1.9%
Renewables	158	247	384	670	978	1,466	1,971	9.4%
Hydro	50	64	64	65	66	66	67	1.0%
Wind	39	76	125	213	305	305	305	7.6%
Geothermal	0	0	0	0	0	0	0	--
Solar	58	96	184	381	597	1,083	1,588	12.5%
Other	11	11	11	11	11	11	11	0.1%
Battery storage	0	3	40	138	236	509	783	--
Pumped hydro	5	6	6	6	6	6	6	1.0%
<b>Total capacity</b>	<b>498</b>	<b>611</b>	<b>806</b>	<b>1,214</b>	<b>1,647</b>	<b>2,408</b>	<b>3,187</b>	<b>6.9%</b>

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run hm\_230821.151836

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

**Table E18.cap. Electricity installed generating capacity: Other Asia Pacific, High Economic Growth case**

gigawatts

<b>Fuel</b>	<b>2022</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>	<b>2045</b>	<b>2050</b>	<b>Average annual percentage change, 2022–2050</b>
Liquid fuels	40	41	22	12	6	2	0	-14.8%
Natural gas	160	175	176	157	157	157	157	-0.1%
Coal	136	151	151	192	231	290	341	3.3%
Nuclear	6	8	5	5	5	5	5	-0.2%
Renewables	133	180	227	306	418	469	539	5.1%
Hydro	78	100	118	133	135	146	167	2.7%
Wind	5	10	15	30	34	35	35	7.3%
Geothermal	4	4	7	8	9	9	9	2.6%
Solar	35	49	69	117	215	253	302	8.0%
Other	10	16	17	18	26	26	26	3.4%
Battery storage	0	0	0	0	0	0	19	--
Pumped hydro	5	5	5	5	5	5	5	0.0%
<b>Total capacity</b>	<b>480</b>	<b>559</b>	<b>586</b>	<b>677</b>	<b>822</b>	<b>928</b>	<b>1,067</b>	<b>2.9%</b>

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run hm\_230821.151836

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

**Table E19.cap. Electricity installed generating capacity: Africa and Middle East, High Economic Growth case**

gigawatts

<b>Fuel</b>	<b>2022</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>	<b>2045</b>	<b>2050</b>	<b>Average annual percentage change, 2022–2050</b>
Liquid fuels	79	80	39	16	7	3	1	-15.4%
Natural gas	368	383	384	444	508	571	636	2.0%
Coal	49	51	50	50	51	51	51	0.1%
Nuclear	10	12	13	17	20	20	20	2.6%
Renewables	94	160	235	277	319	393	474	6.0%
Hydro	55	69	75	83	91	99	111	2.6%
Wind	10	24	43	45	46	47	47	5.7%
Geothermal	1	1	5	6	9	9	9	8.5%
Solar	26	63	108	137	169	234	302	9.1%
Other	2	4	4	4	4	5	5	3.8%
Battery storage	0	0	0	0	0	0	0	--
Pumped hydro	5	6	6	6	6	6	6	0.7%
<b>Total capacity</b>	<b>604</b>	<b>691</b>	<b>727</b>	<b>810</b>	<b>911</b>	<b>1,043</b>	<b>1,187</b>	<b>2.4%</b>

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run hm\_230821.151836

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

**Table E20.cap. Electricity installed generating capacity: Africa, High Economic Growth case**

gigawatts

<b>Fuel</b>	<b>2022</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>	<b>2045</b>	<b>2050</b>	<b>Average annual percentage change, 2022–2050</b>
Liquid fuels	21	21	7	1	0	0	0	-16.2%
Natural gas	122	126	127	164	203	237	280	3.0%
Coal	49	50	50	50	50	50	50	0.1%
Nuclear	2	2	4	6	7	7	7	5.1%
Renewables	64	96	132	169	208	277	354	6.3%
Hydro	39	51	58	66	74	82	94	3.2%
Wind	9	16	26	27	28	28	28	4.3%
Geothermal	1	1	4	6	8	8	8	8.5%
Solar	14	25	40	66	94	155	219	10.3%
Other	2	3	4	4	4	4	5	3.6%
Battery storage	0	0	0	0	0	0	0	--
Pumped hydro	3	4	4	4	4	4	4	0.4%
<b>Total capacity</b>	<b>261</b>	<b>299</b>	<b>326</b>	<b>395</b>	<b>473</b>	<b>577</b>	<b>697</b>	<b>3.6%</b>

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run hm\_230821.151836

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

**Table E21.cap. Electricity installed generating capacity: Middle East, High Economic Growth case**

gigawatts

<b>Fuel</b>	<b>2022</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>	<b>2040</b>	<b>2045</b>	<b>2050</b>	<b>Average annual percentage change, 2022–2050</b>
Liquid fuels	57	59	31	15	7	2	1	-15.2%
Natural gas	246	256	256	279	306	333	356	1.3%
Coal	0	0	0	0	0	0	0	-5.9%
Nuclear	8	10	9	11	12	12	12	1.6%
Renewables	29	64	103	108	111	116	119	5.1%
Hydro	16	17	17	17	17	17	17	0.4%
Wind	1	9	17	18	18	18	18	10.2%
Geothermal	0	0	0	0	0	0	0	--
Solar	12	38	68	72	75	79	83	7.0%
Other	0	0	0	0	0	0	1	5.4%
Battery storage	0	0	0	0	0	0	0	0.0%
Pumped hydro	2	2	2	2	2	2	2	1.4%
<b>Total capacity</b>	<b>343</b>	<b>392</b>	<b>401</b>	<b>415</b>	<b>438</b>	<b>466</b>	<b>490</b>	<b>1.3%</b>

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run hm\_230821.151836

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