

**Table E1.cap. Electricity installed generating capacity: World, Low 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	380	223	146	116	103	99	-4.8%
Natural gas	1,931	2,041	2,130	2,143	2,176	2,260	2,352	0.7%
Coal	2,271	2,315	2,164	2,145	2,143	2,147	2,169	-0.2%
Nuclear	400	425	422	444	447	453	450	0.4%
Renewables	3,297	4,055	4,950	5,507	6,026	6,639	7,161	2.8%
Hydro	1,211	1,317	1,375	1,408	1,438	1,459	1,483	0.7%
Wind	873	1,014	1,293	1,443	1,588	1,677	1,717	2.4%
Geothermal	15	17	25	28	32	32	33	2.9%
Solar	1,019	1,502	2,040	2,405	2,732	3,229	3,681	4.7%
Other	179	205	216	223	236	242	247	1.1%
Battery storage	52	69	108	204	321	510	711	9.8%
Pumped hydro	169	200	211	213	213	213	213	0.8%
<b>Total capacity</b>	<b>8,511</b>	<b>9,484</b>	<b>10,208</b>	<b>10,801</b>	<b>11,441</b>	<b>12,324</b>	<b>13,155</b>	<b>1.6%</b>

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run Im\_230821.151939 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, Low 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	129	88	66	62	59	58	-3.1%
Natural gas	629	655	721	756	777	802	849	1.1%
Coal	227	190	117	104	93	98	101	-2.9%
Nuclear	114	115	112	103	88	85	82	-1.2%
Renewables	788	967	1,298	1,520	1,638	1,792	1,938	3.3%
Hydro	362	376	382	386	387	389	390	0.3%
Wind	200	237	383	447	480	518	544	3.6%
Geothermal	4	4	5	6	6	7	7	1.8%
Solar	159	287	464	617	699	814	931	6.5%
Other	62	62	64	64	65	65	66	0.2%
Battery storage	6	18	33	56	98	124	154	12.1%
Pumped hydro	23	23	23	23	23	23	23	0.0%
<b>Total capacity</b>	<b>1,929</b>	<b>2,098</b>	<b>2,391</b>	<b>2,628</b>	<b>2,779</b>	<b>2,982</b>	<b>3,205</b>	<b>1.8%</b>

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run Im\_230821.151939 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, Low 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	62	59	56	59	58	58	-0.9%
Natural gas	445	462	517	553	579	605	645	1.3%
Coal	201	164	98	85	70	69	69	-3.8%
Nuclear	95	96	92	83	72	72	71	-1.0%
Renewables	389	541	855	1,054	1,139	1,256	1,369	4.6%
Hydro	79	79	80	80	80	80	80	0.0%
Wind	145	171	310	359	367	381	391	3.6%
Geothermal	3	3	3	3	4	4	5	2.2%
Solar	125	250	425	574	650	752	854	7.1%
Other	37	37	38	38	39	39	39	0.2%
Battery storage	6	18	33	56	98	124	153	12.1%
Pumped hydro	22	22	22	22	22	22	22	0.0%
<b>Total capacity</b>	<b>1,234</b>	<b>1,365</b>	<b>1,678</b>	<b>1,909</b>	<b>2,038</b>	<b>2,207</b>	<b>2,387</b>	<b>2.4%</b>

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run Im\_230821.151939 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, Low 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	-14.0%
Natural gas	33	36	46	49	49	51	58	2.1%
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	182	198	2.3%
Hydro	83	86	89	89	89	89	89	0.3%
Wind	16	17	23	37	62	86	101	6.9%
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>169</b>	<b>177</b>	<b>192</b>	<b>215</b>	<b>239</b>	<b>260</b>	<b>1.7%</b>

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run Im\_230821.151939

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

**Table E5.cap. Electricity installed generating capacity: Mexico, Low 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	-19.1%
Natural gas	44	45	45	44	44	44	44	-0.1%
Coal	9	9	9	9	9	9	9	0.0%
Nuclear	2	2	3	4	3	2	2	1.5%
Renewables	30	33	36	40	45	54	64	2.7%
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	15	19	29	39	6.0%
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>99</b>	<b>100</b>	<b>102</b>	<b>109</b>	<b>119</b>	<b>0.7%</b>

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run Im\_230821.151939

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

**Table E6.cap. Electricity installed generating capacity: Brazil, Low 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	-16.2%
Natural gas	24	27	27	22	18	15	14	-1.9%
Coal	6	6	4	4	4	4	4	-1.3%
Nuclear	2	2	3	3	3	2	2	0.9%
Renewables	161	172	172	172	172	172	172	0.3%
Hydro	112	117	117	117	117	117	117	0.2%
Wind	20	26	26	26	26	26	26	1.0%
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	0	0	0.0%
Pumped hydro	0	0	0	0	0	0	0	0.0%
<b>Total capacity</b>	<b>207</b>	<b>222</b>	<b>212</b>	<b>203</b>	<b>198</b>	<b>194</b>	<b>193</b>	<b>-0.2%</b>

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run Im\_230821.151939

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

**Table E7.cap. Electricity installed generating capacity: Other Americas, Low 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	85	88	88	88	88	0.2%
Coal	6	6	6	6	11	15	19	4.4%
Nuclear	2	2	2	2	2	2	2	0.8%
Renewables	103	111	115	120	124	128	135	1.0%
Hydro	75	79	81	85	86	88	89	0.6%
Wind	12	15	16	17	17	18	18	1.5%
Geothermal	1	1	1	1	1	1	1	2.0%
Solar	10	11	11	12	13	16	22	2.9%
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>239</b>	<b>225</b>	<b>223</b>	<b>227</b>	<b>234</b>	<b>245</b>	<b>0.2%</b>

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run Im\_230821.151939

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

**Table E8.cap. Electricity installed generating capacity: Europe and Eurasia, Low 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	77	52	39	32	32	31	-3.2%
Natural gas	474	483	495	485	476	475	477	0.0%
Coal	269	271	221	225	228	228	228	-0.6%
Nuclear	168	173	151	156	156	154	142	-0.6%
Renewables	782	907	1,012	1,021	1,032	1,041	1,056	1.1%
Hydro	272	297	300	301	301	302	302	0.4%
Wind	245	283	325	326	329	330	330	1.1%
Geothermal	3	6	6	6	6	6	6	2.2%
Solar	206	247	299	301	305	307	316	1.5%
Other	56	74	82	87	92	96	101	2.1%
Battery storage	0	0	0	0	0	17	34	--
Pumped hydro	50	51	52	52	52	52	52	0.1%
<b>Total capacity</b>	<b>1,820</b>	<b>1,964</b>	<b>1,983</b>	<b>1,977</b>	<b>1,976</b>	<b>1,998</b>	<b>2,019</b>	<b>0.4%</b>

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run Im\_230821.151939

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



**Table E9.cap. Electricity installed generating capacity: Western Europe, Low 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	60	41	30	23	23	23	-3.4%
Natural gas	299	305	305	285	267	252	241	-0.8%
Coal	171	171	116	116	116	116	116	-1.4%
Nuclear	124	127	107	108	109	107	94	-1.0%
Renewables	683	801	906	913	924	931	946	1.2%
Hydro	191	214	217	217	217	217	217	0.5%
Wind	241	277	319	320	322	323	323	1.0%
Geothermal	3	6	6	6	6	6	6	2.2%
Solar	193	233	285	287	291	292	302	1.6%
Other	55	71	79	83	88	93	98	2.1%
Battery storage	0	0	0	0	0	17	34	--
Pumped hydro	47	48	48	48	48	48	48	0.1%
<b>Total capacity</b>	<b>1,384</b>	<b>1,514</b>	<b>1,524</b>	<b>1,500</b>	<b>1,488</b>	<b>1,494</b>	<b>1,502</b>	<b>0.3%</b>

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run Im\_230821.151939

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

**Table E10.cap. Electricity installed generating capacity: Russia, Low 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	0	0	-10.7%
Natural gas	136	137	149	162	166	169	173	0.9%
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>293</b>	<b>301</b>	<b>313</b>	<b>317</b>	<b>320</b>	<b>322</b>	<b>0.4%</b>

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run Im\_230821.151939

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

**Table E11.cap. Electricity installed generating capacity: Eastern Europe and Eurasia, Low 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	9	9	9	9	9	-0.6%
Natural gas	38	41	41	37	43	54	63	1.8%
Coal	43	45	49	54	56	56	56	1.0%
Nuclear	15	15	12	16	16	16	17	0.6%
Renewables	40	44	45	46	46	48	48	0.6%
Hydro	26	29	29	30	30	30	30	0.5%
Wind	2	3	3	4	4	4	4	2.4%
Geothermal	0	0	0	0	0	0	0	--
Solar	11	12	12	12	12	13	13	0.4%
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>157</b>	<b>158</b>	<b>164</b>	<b>172</b>	<b>184</b>	<b>195</b>	<b>1.0%</b>

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run Im\_230821.151939

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

**Table E12.cap. Electricity installed generating capacity: Asia Pacific, Low 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	44	24	14	10	8	-8.2%
Natural gas	460	520	531	498	486	508	517	0.4%
Coal	1,725	1,803	1,776	1,766	1,771	1,771	1,790	0.1%
Nuclear	108	126	146	168	183	193	206	2.3%
Renewables	1,633	2,024	2,411	2,711	3,078	3,496	3,820	3.1%
Hydro	523	577	620	641	665	678	689	1.0%
Wind	417	469	542	625	733	783	796	2.3%
Geothermal	6	6	9	10	11	11	11	2.0%
Solar	628	907	1,174	1,368	1,594	1,949	2,249	4.7%
Other	59	65	66	67	75	75	75	0.9%
Battery storage	46	50	75	148	223	369	524	9.1%
Pumped hydro	91	120	131	133	133	133	133	1.3%
<b>Total capacity</b>	<b>4,158</b>	<b>4,735</b>	<b>5,115</b>	<b>5,448</b>	<b>5,888</b>	<b>6,481</b>	<b>6,999</b>	<b>1.9%</b>

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run Im\_230821.151939

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

**Table E13.cap. Electricity installed generating capacity: Japan, Low 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	-5.8%
Natural gas	95	101	101	89	79	72	72	-1.0%
Coal	64	65	42	32	32	32	32	-2.4%
Nuclear	14	20	25	25	21	18	18	0.9%
Renewables	108	112	118	125	139	153	166	1.6%
Hydro	22	22	22	22	22	22	22	0.0%
Wind	4	4	4	5	13	21	28	6.9%
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>332</b>	<b>310</b>	<b>307</b>	<b>311</b>	<b>324</b>	<b>-0.2%</b>

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run Im\_230821.151939

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

**Table E14.cap. Electricity installed generating capacity: South Korea, Low 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	1	1	1	1	-4.6%
Natural gas	43	46	46	41	38	35	35	-0.8%
Coal	43	46	46	46	46	46	46	0.3%
Nuclear	27	31	31	31	31	29	29	0.2%
Renewables	22	27	33	35	39	48	53	3.3%
Hydro	2	2	2	2	2	2	2	1.1%
Wind	2	7	13	15	19	28	33	10.7%
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	2	0.0%
Battery storage	0	0	0	0	0	0	0	0.0%
Pumped hydro	5	5	5	5	5	5	5	0.0%
<b>Total capacity</b>	<b>144</b>	<b>158</b>	<b>162</b>	<b>159</b>	<b>159</b>	<b>164</b>	<b>168</b>	<b>0.6%</b>

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run Im\_230821.151939

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

**Table E15.cap. Electricity installed generating capacity: Australia and New Zealand, Low 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	-12.1%
Natural gas	25	25	25	20	15	17	17	-1.3%
Coal	28	28	28	28	28	28	28	0.0%
Nuclear	0	0	0	0	0	0	0	0.0%
Renewables	48	56	61	68	80	88	100	2.6%
Hydro	12	14	16	16	16	16	16	1.1%
Wind	11	16	17	19	21	22	23	2.5%
Geothermal	1	1	1	1	1	1	1	0.0%
Solar	23	24	26	31	42	48	59	3.4%
Other	1	1	1	1	1	1	1	0.1%
Battery storage	0	0	0	0	0	2	5	--
Pumped hydro	2	4	4	4	4	4	4	3.1%
<b>Total capacity</b>	<b>105</b>	<b>115</b>	<b>118</b>	<b>120</b>	<b>129</b>	<b>139</b>	<b>155</b>	<b>1.4%</b>

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run Im\_230821.151939

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

**Table E16.cap. Electricity installed generating capacity: China, Low 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	-36.5%
Natural gas	106	144	153	154	164	193	202	2.3%
Coal	1,164	1,203	1,198	1,198	1,198	1,198	1,198	0.1%
Nuclear	55	59	77	96	114	129	142	3.5%
Renewables	1,165	1,434	1,686	1,743	1,808	1,856	1,871	1.7%
Hydro	359	375	398	412	425	437	447	0.8%
Wind	356	380	421	460	507	538	538	1.5%
Geothermal	0	0	0	0	0	0	0	0.1%
Solar	420	650	837	841	846	851	855	2.6%
Other	30	30	30	30	30	30	30	0.0%
Battery storage	46	47	51	57	64	72	76	1.8%
Pumped hydro	47	72	83	84	84	84	84	2.1%
<b>Total capacity</b>	<b>2,587</b>	<b>2,964</b>	<b>3,248</b>	<b>3,333</b>	<b>3,433</b>	<b>3,532</b>	<b>3,574</b>	<b>1.2%</b>

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run Im\_230821.151939

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



**Table E17.cap. Electricity installed generating capacity: India, Low 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	31	37	42	42	42	1.1%
Coal	291	310	310	310	310	310	310	0.2%
Nuclear	7	7	9	11	12	12	12	1.9%
Renewables	158	218	299	482	660	891	1,130	7.3%
Hydro	50	64	64	65	66	66	67	1.0%
Wind	39	53	71	105	140	140	140	4.7%
Geothermal	0	0	0	0	0	0	0	--
Solar	58	91	153	301	444	673	913	10.3%
Other	11	11	11	11	11	11	11	0.1%
Battery storage	0	3	23	91	159	295	432	--
Pumped hydro	5	6	6	6	6	6	6	1.0%
<b>Total capacity</b>	<b>498</b>	<b>582</b>	<b>681</b>	<b>937</b>	<b>1,190</b>	<b>1,556</b>	<b>1,933</b>	<b>5.0%</b>

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run Im\_230821.151939

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

**Table E18.cap. Electricity installed generating capacity: Other Asia Pacific, Low 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	-14.9%
Natural gas	160	175	176	157	148	148	148	-0.3%
Coal	136	151	151	151	156	156	175	0.9%
Nuclear	6	8	5	5	5	5	5	-0.2%
Renewables	133	176	215	259	350	461	500	4.8%
Hydro	78	100	118	124	134	135	135	2.0%
Wind	5	10	15	22	33	34	34	7.2%
Geothermal	4	4	7	8	9	9	9	2.6%
Solar	35	45	57	87	148	256	296	7.9%
Other	10	16	17	18	26	26	26	3.4%
Battery storage	0	0	0	0	0	0	10	--
Pumped hydro	5	5	5	5	5	5	5	0.0%
<b>Total capacity</b>	<b>480</b>	<b>555</b>	<b>574</b>	<b>589</b>	<b>671</b>	<b>778</b>	<b>845</b>	<b>2.0%</b>

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run Im\_230821.151939

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

**Table E19.cap. Electricity installed generating capacity: Africa and Middle East, Low 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	38	16	7	3	1	-15.4%
Natural gas	368	383	383	404	436	475	508	1.2%
Coal	49	51	50	50	50	50	50	0.1%
Nuclear	10	12	13	17	20	20	20	2.6%
Renewables	94	157	228	255	278	310	347	4.8%
Hydro	55	67	73	81	85	91	101	2.2%
Wind	10	24	43	45	46	46	47	5.7%
Geothermal	1	1	5	6	9	9	9	8.5%
Solar	26	61	103	118	134	159	185	7.2%
Other	2	3	4	4	5	5	5	3.7%
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>688</b>	<b>720</b>	<b>748</b>	<b>797</b>	<b>863</b>	<b>932</b>	<b>1.6%</b>

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run Im\_230821.151939

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

**Table E20.cap. Electricity installed generating capacity: Africa, Low 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	1	0	0	-16.2%
Natural gas	122	126	127	137	152	171	191	1.6%
Coal	49	50	50	50	50	50	50	0.1%
Nuclear	2	2	4	6	7	7	7	5.1%
Renewables	64	92	125	147	167	194	228	4.6%
Hydro	39	50	56	64	68	73	84	2.8%
Wind	9	16	26	27	28	28	28	4.3%
Geothermal	1	1	4	6	8	8	8	8.5%
Solar	14	23	36	47	58	80	103	7.3%
Other	2	3	3	4	4	4	4	3.5%
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>296</b>	<b>318</b>	<b>346</b>	<b>380</b>	<b>427</b>	<b>481</b>	<b>2.2%</b>

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run Im\_230821.151939

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

**Table E21.cap. Electricity installed generating capacity: Middle East, Low 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	266	285	303	317	0.9%
Coal	0	0	0	0	0	0	0	-6.2%
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>402</b>	<b>417</b>	<b>436</b>	<b>452</b>	<b>1.0%</b>

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run Im\_230821.151939

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