

Table E1.gen. Electricity generation: World, Low Zero-carbon Technology Cost case

billion kilowatthours

Fuel	2022	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2022–2050
Liquid fuels	733	737	379	195	106	69	55	-8.8%
Natural gas	6,700	6,634	6,481	6,453	6,811	6,880	6,772	0.0%
Coal	9,696	9,324	9,066	9,036	8,664	8,152	7,404	-1.0%
Nuclear	2,666	3,017	3,091	3,179	3,203	3,359	4,110	1.6%
Renewables	8,447	10,034	12,734	15,424	18,254	21,483	24,666	3.9%
Hydro	4,320	4,707	4,959	5,251	5,317	5,354	5,405	0.8%
Wind	1,967	2,335	3,337	4,233	5,450	6,420	6,970	4.6%
Geothermal	67	110	190	212	221	225	254	4.9%
Solar	1,421	2,247	3,577	5,052	6,595	8,696	11,153	7.6%
Other	672	635	671	676	670	788	884	1.0%
Net generation to grid	28,243	29,747	31,750	34,288	37,038	39,942	43,006	1.5%

Data source: U.S. Energy Information Administration, World Energy Projection System (2023), run lz_230821.151531 and Annual Energy Outlook 2023 (March 2023), www.eia.gov/aeo

Note: Totals may not equal sum of components due to independent rounding. Net generation to grid represents gross generation minus losses from thermal efficiency and parasitic load.