

Table E1.gen. Electricity generation: World, Reference case

billion kilowatthours

Fuel	2020	2025	2030	2035	2040	2045	2050	Average annual percentage change, 2020–2050
Liquid fuels	692	688	326	156	80	44	30	-10.0
Natural gas	6,458	6,841	7,134	6,970	6,968	7,061	7,306	0.4
Coal	8,224	7,628	7,176	7,491	7,802	8,120	8,115	0.0
Nuclear	2,630	2,836	2,914	3,053	3,084	3,020	3,025	0.5
Renewables	6,989	10,171	12,749	15,249	17,923	20,762	23,477	4.1
Hydro	4,034	4,620	4,921	5,065	5,211	5,337	5,548	1.1
Wind	1,741	2,814	3,583	4,533	5,526	6,410	6,833	4.7
Geothermal	90	129	188	214	239	249	254	3.5
Solar	832	2,275	3,656	4,949	6,391	8,145	10,152	8.7
Other	291	333	400	489	557	621	689	2.9
Net generation to grid	24,993	28,164	30,299	32,919	35,858	39,006	41,953	1.7

Sources: U.S. Energy Information Administration (EIA), World Energy Projection System (2021), run r_210719.163829; and EIA, *Annual Energy Outlook 2021*, (February 2021), www.eia.gov/aeo

Notes:

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

* *Net generation to grid* represents gross generation less losses from thermal efficiency and parasitic load.