

Table 5.1. Installed generating capacity by fuel type: Africa, Maximum Off-Grid case

gigawatts

fuel	2019	2025	2030	2035	2040	2045	2050	Average annual percent change, 2019-2050
Liquids-fired	11.8	10.0	6.4	3.9	2.2	1.5	1.5	-6.4
Natural-gas-fired	91.3	89.6	103.6	134.6	152.9	169.8	180.9	2.2
Coal-fired	47.5	51.4	51.4	51.4	51.4	51.4	57.2	0.6
Nuclear	1.9	1.9	3.2	2.7	4.1	4.1	5.4	3.5
Renewables								
Biomass	1.0	1.5	2.7	2.8	3.1	3.1	3.3	3.9
Geothermal	0.7	2.6	5.2	6.8	8.8	9.4	9.4	9.0
Hydro	26.5	32.1	39.6	44.8	51.8	64.8	78.0	3.5
Solar	7.4	67.6	98.5	109.5	121.9	148.0	196.4	11.2
Waste	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.0
Wind	5.6	20.1	30.7	31.9	33.0	34.2	35.3	6.1
Other renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total renewables	41.3	124.1	176.8	195.9	218.9	259.7	322.5	6.9
Total	193.7	276.9	341.4	388.4	429.4	486.4	567.6	3.5

Totals may not equal sum of components as a result of independent rounding.

Sources: U.S. Energy Information Administration (EIA), World Energy Projection System (2020)

run: Max off-grid development

Table 5.2. Net electricity generation by fuel type: Africa, Maximum Off-Grid case

billion kilowatthours

fuel	2019	2025	2030	2035	2040	2045	2050	Average annual percent change, 2019-2050
Liquids-fired	53.1	45.0	28.6	17.6	10.1	6.7	6.7	-6.5
Natural-gas-fired	307.5	331.8	389.3	487.8	585.9	648.0	688.6	2.6
Coal-fired	253.3	270.7	243.8	275.1	296.4	325.6	372.6	1.3
Nuclear	12.9	12.9	22.4	18.9	28.4	28.4	37.8	3.5
Renewables								
Biomass	0.0	1.2	2.4	3.1	3.5	3.6	5.5	infinity
Geothermal	4.8	19.5	38.7	50.3	65.5	69.9	69.9	9.0
Hydro	112.5	133.7	160.1	182.9	214.7	276.5	333.9	3.6
Solar	14.6	143.2	211.7	239.6	268.9	328.6	440.7	11.6
Waste	0.0	0.0	0.0	0.0	0.0	0.0	0.3	infinity
Wind	17.5	57.5	87.7	91.6	95.0	98.6	102.6	5.9
Other renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total renewables	149.4	355.1	500.6	567.5	647.5	777.2	952.9	6.2
Total	776.2	1015.4	1184.8	1366.9	1568.3	1785.9	2058.6	3.2

Totals may not equal sum of components as a result of independent rounding.

Sources: U.S. Energy Information Administration (EIA), World Energy Projection System (2020)

run: Max off-grid development