Aloe Energy

COUNTRY BRIEF · NOVEMBER 2026

Mozambique: grid and electricity access

Southern African Power Pool

23 M
people live without night-time light, a proxy for no power

76%
of them live within 15 km of a power line

9,745
km of high-voltage lines, 66 kV and above

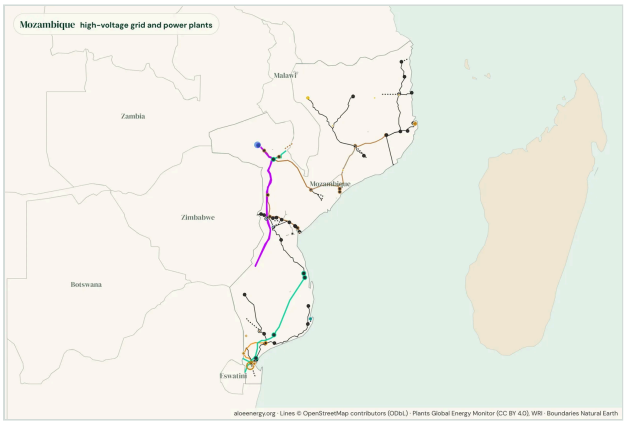
2,992
MW of operating power plants, 10 MW and above

38
power plants and transmission lines planned or under construction

Mozambique is home to Cahora Bassa, one of Africa's largest hydro plants, and much of its power is exported to neighbors while about 23 million people at home live without night-time light. The country is long, and its grid is thin in places: 76% of people without light live within 15 km of a line, the rest farther out. A planned north-south backbone would join the network end to end, but its date has slipped by years.

WHAT THIS MEANS

To reach 100% electricity access by 2030, Mozambique needs to add about 7 percentage points a year from 2024: from 60% today.



Map: Aloe Energy SAPP grid atlas. Lines © OpenStreetMap contributors (ODbL).

NEAR THE GRID, NOT ON IT

About 23 million people in Mozambique, roughly 75% of the population, live where satellites see no electric light at night. Of them, 76% live within 15 km of a mapped or predicted power line: 6.5 million within 2 km, 11 million 2 to 15 km away, and 5.5 million farther out. The largest group lives 2 to 15 km out: close enough to plan for the grid, too far for a quick connection. That is where mini-grids built to join the grid later can do the most good.

- Within 2 km of a line: **6.5 million** (28%)
- 2 to 15 km: **11 million** (47%)
- More than 15 km: **5.5 million** (24%)

"Without night-time light" is a satellite proxy, not a measured access rate.

THE GRID TODAY

Mozambique's mapped high-voltage network runs to about 9,745 km of lines at 66 kV and above, with 70 substations. The highest voltage on the map is 500 kV, and 50% of the line length runs at 220 kV or more. About 658 km come from older World Bank (2017) maps, used where OpenStreetMap has gaps. In August 2026, SAPP reported a peak demand of 1,085 MW against 2,186 MW available.

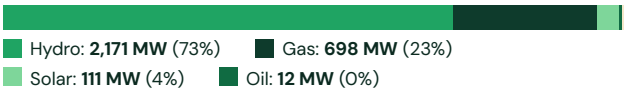
Mapped line length

Voltage	km
500 kV	1,433
400 kV	790
275 kV	244
220 kV	2,054
132 kV	12
110 kV	3,574
66 kV	248
Voltage not recorded	732
Gap-fill from older public maps	658
Total	**9,745**

PLANTS AND PIPELINE

There are 14 operating power plants of 10 MW and above, adding up to about 2,992 MW, 73% of it hydro. The largest is Cahora Bassa hydroelectric plant (2,075 MW, hydro). Another 35 plants totaling about 20,857 MW are under construction or planned, 944 MW of them under construction.

Operating capacity by type



Promised and now expected dates

Project	Type	MW	First promised	Now expected
Mozambique north-south backbone (Mphanda Nkuwa)	Line	-	2028	2034
Mphanda Nkuwa	Hydro	1,500	2028	2034
Mozambique-Malawi interconnector (MoMa)	Line	-	2024	2026
Mozambique-Tanzania interconnector	Line	-	2028	2028

MISSION 300 COMPACT

Mozambique's Mission 300 energy compact commits to raising electricity access from 60% to 100% by 2030.

Electricity access



Mission 300 energy compact

Commitment	Value
Clean cooking target	from 17% to 54% by 2030
Private investment sought	US$8.698 billion
Rules for mini-grids when the grid arrives	Mentioned only
E-waste commitment	No

SECOND LIFE

Between 2026 and 2040, about 26,300 tonnes of solar equipment and stationary batteries are expected to retire in Mozambique, most of it off-grid solar kits and mini-grids. That is 7.1% of the total for the 12 Southern African Power Pool countries.

Solar and batteries retiring each year (tonnes)



EMISSIONS

In 2024, each megawatt-hour used in Mozambique came with about 0.09 tonnes of CO2, including imports. The table also gives the combined margin used for carbon projects.

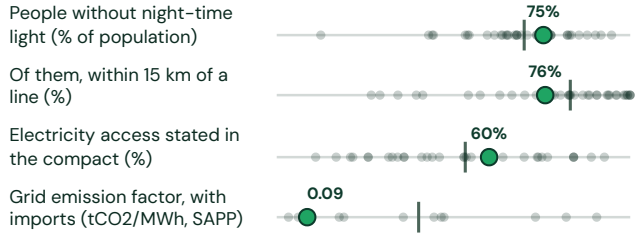
Grid emission factor, 2024 (tCO2/MWh)

Measure	tCO2/MWh
Generated in country	0.086
Electricity used, with imports	0.086
Combined margin (for carbon projects)	0.100

CLEAN ENERGY CERTIFICATES

I-REC status: not approved yet, so renewable plants here cannot issue I-RECs.

HOW IT COMPARES



Each dot is one country with a page on aloeenergy.org; the line marks the median. Positions only, no ranking.

Sources: Grid lines: OpenStreetMap contributors (ODbL), gap-fill from the World Bank Africa grid (2017); power plants: Global Energy Monitor (September 2026), WRI and public project sources; supply and demand: SAPP monthly report; people and distance to the grid: WorldPop 2020 and gridfinder (CC BY 4.0); second life: Aloe second-life model (central case); emission factor: Aloe grid emission factors (Ember); compact: the national Mission 300 energy compact.

Aloe Energy

The full page, with the interactive atlas, is at aloeenergy.org/countries/mozambique. The maps are free to view; the data behind them is available on request: brandon@aloeenergy.org. Aloe Energy is a not-for-profit initiative working at the grid edge in Sub-Saharan Africa.

Scan for the live page and map

Cite as: Aloe Energy (2026). Mozambique country brief, November 2026. aloeenergy.org/countries/mozambique.
Free to share under CC BY 4.0.