Aloe Energy research

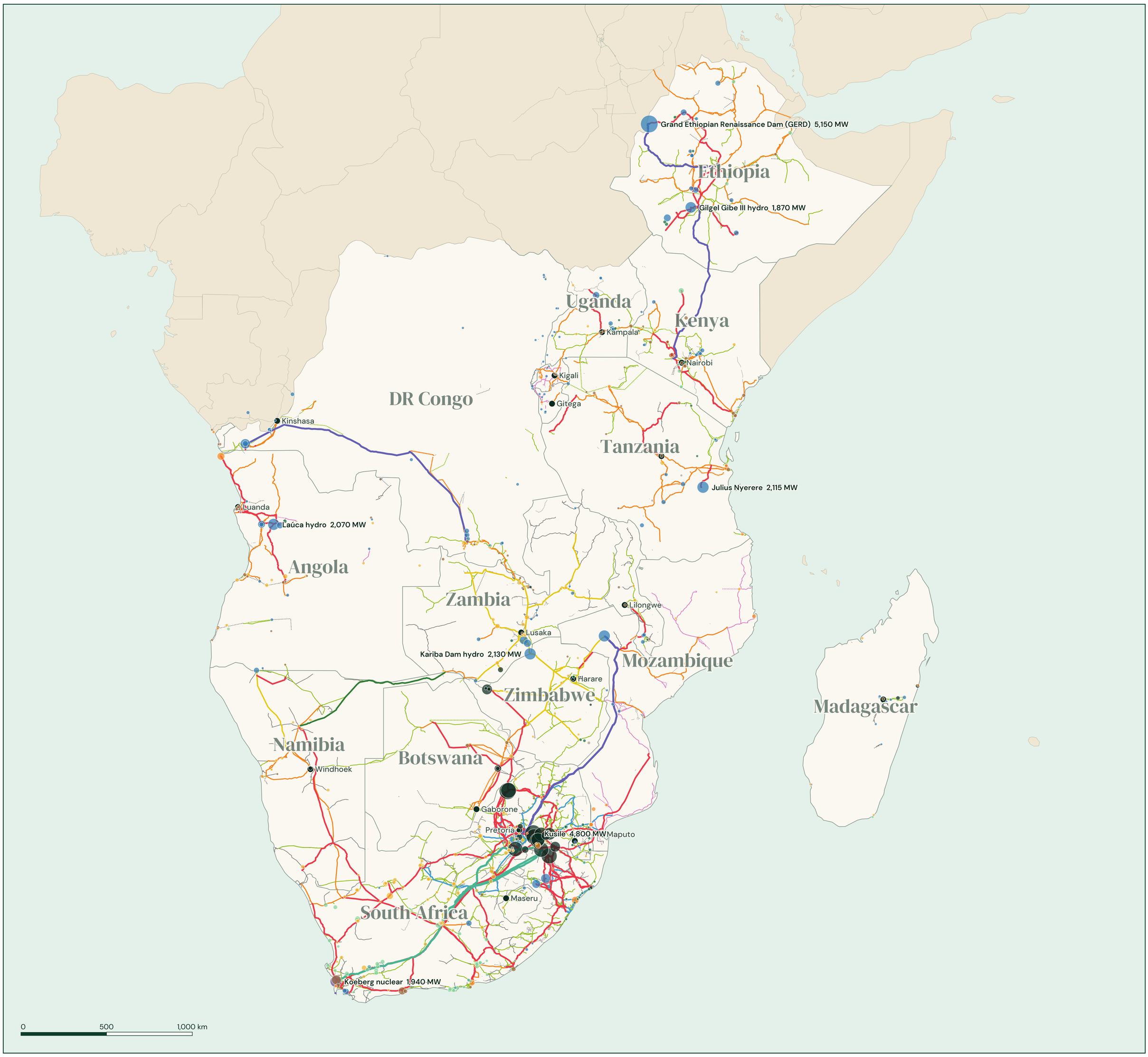
Grows where the grid hasn't.

Eastern and Southern Africa today

The high-voltage grid and the power plants running in November 2026

18 countries · 196,228 km of lines, 66 kV and above · 568 power plants of 10 MW and above (112,190 MW)

Edition 1 · Data as of November 2026



How to read the map

- 765 kV
- 500–533 kV
- 400 kV
- 350 kV
- 330 kV
- 275 kV
- 220 kV
- 132 kV
- 110 kV
- 88 kV
- 66 kV
- Voltage not recorded
- Dotted: missing from OpenStreetMap, from utility or World Bank maps
- Grey: lines in neighboring countries

Power plants, 10 MW and above

- Hydro
- Coal
- Gas
- Oil
- Solar
- Wind
- Geothermal
- Biomass
- Nuclear
- Storage
- Other

50 MW · 500 MW · 2,000 MW

Town or city

In numbers

- **112 GW** in 568 operating power plants of 10 MW and above
- **196,228 km** of mapped transmission lines, 66 kV and above
- **3,516** substations mapped
- **44%** of operating capacity is coal

What runs the region today



- Coal 49,571 MW (44%)
- Hydro 33,489 MW (30%)
- Solar 9,663 MW (9%)
- Oil 5,845 MW (5%)
- Wind 5,558 MW (5%)
- Gas 3,412 MW (3%)

Largest power stations

Grand Ethiopian Renaissance Dam (GERD) (ETH, hydro)	5,150 MW
Kusile (ZAF, coal)	4,800 MW
Medupi (ZAF, coal)	4,769 MW
Majuba (ZAF, coal)	4,143 MW
Kendal (ZAF, coal)	4,116 MW
Matimba (ZAF, coal)	3,990 MW
Lethabo (ZAF, coal)	3,708 MW
Tutuka (ZAF, coal)	3,654 MW
Matla (ZAF, coal)	3,600 MW
Duvha (ZAF, coal)	3,000 MW
Kriel (ZAF, coal)	3,000 MW
Arnot (ZAF, coal)	2,352 MW

Plus 556 smaller plants on the map.

Sources. Transmission lines: contains information from OpenStreetMap, which is made available under the Open Database License (ODbL), extracted 4 November 2026; lines missing from OpenStreetMap from Kenya Power (KPLC GIS), SNEL / World Bank DRC EASE (2018), route approximate, TANESCO / AICD, World Bank 2017 (DRC), World Bank 2017 (Mozambique), World Bank 2017 Africa grid. Power plants: Global Energy Monitor Global Integrated Power Tracker (September 2026, CC BY 4.0), a project register built from public sources, WRI Global Power Plant Database v1.3, OpenStreetMap and the World Bank AICD inventory. Transmission projects: utilities, power pools, funders and news reports; master plans: EAPP master plan 2014; Madagascar least-cost plan (PDMC 2018); SAPP master plan 2025-2045 (draft). Towns: GeoNames (CC BY 4.0). Boundaries: Natural Earth.

Routes are indicative, drawn substation to substation. This map is for information only, not for engineering, investment or navigation decisions. Boundaries and names do not imply any view on their status. Free to print and share for non-commercial use with credit to Aloe Energy, unchanged (CC BY-NC-ND 4.0). Download both sheets at aloeenergy.org/posters. The companion sheet shows the plans to 2035 and beyond.

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Edition 1, November 2026