UNFCCC COP31 SIDE EVENT Blue Zone:
14/11 2026 13:15-14:45. Room 6, Katip Çelebi

100% Renewables with focus on local solutions, end poverty, women/gender responsive, youth education

Organized by: INFORSE, AIWC, Suswatch Kenya, Nordic Folkecenter for Renewable Energy, and Mali Folkecenter Nyetaa

Just Transition to Renewable Energy in Africa
100 % Renewables in Mali

By Ibrahim Togola, Mali Folkecenter Nyetaa

Proceedings: inforse.org/cop31.php

Sun 7–10 hours a day, yet 500 million litres of diesel a year

7–10 h of sunshine per day across Mali, 5–7 kWh/m²/day

500 M L of diesel imported by Utility in one year, ≈ FCFA 309 bn

19 h → 12 h daily grid supply in Bamako during the 2025 fuel blockade

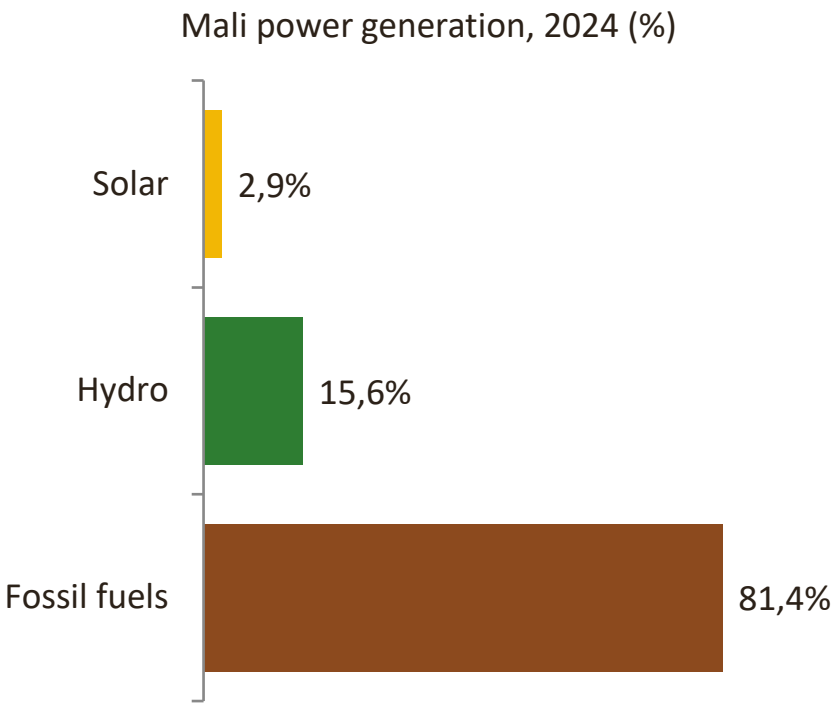
Thesis: 100% renewable energy in the Sahel is already happening, is cheaper than diesel, and climate finance through national DAEs like MFC Nyetaa can scale it. Now.

Sources: AfDB/CIF Mali RE profile; API-Mali; ex-Energy Minister H. Sow cited by ZAM Magazine; AFP (Gulf Times, Oct 2025).



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Cheap technology, a fuel crisis, policy and money now line up



Calculation (hypothesis: 0.3 L/kWh): diesel fuel alone ≈ 195 FCFA/kWh at 650 FCFA/L, ≈ 525 FCFA/kWh at 1,750 FCFA/L.

−90%

Solar PV cost per kWh, 2010–2024. Africa average now USD 0.074/kWh.

−93%

Battery storage cost since 2010, to USD 192/kWh. Firm solar + storage: USD 54–82/MWh.

×2.7

Diesel price for a Mopti generator: 650 → 1,750 FCFA/L (Nov 2025). EDM debt > FCFA 200 bn.

10 GW

Desert to Power solar target for the Sahel; Mission 300 aims at 300 M connections by 2030.

Sources: EIA data via TheGlobalEconomy (2024 mix); IRENA, Renewable Power Generation Costs in 2024 (2025) and 24/7 Renewables (2026); AllAfrica (Mopti, Nov 2025); AFP (EDM debt); AfDB; World Bank.

It is already happening, and each source has a clear role

SOLAR

Backbone: daytime + storage

- Kita 50 MWp (2020), Touna 93 MW (2023), Ségou 33 MW and Sikasso 50 MW (2024)
- Safo 1 (100 MWp) inauguration announced; Sanankoroba 200 MWp under construction

HYDRO

Firm power and balancing

- Gouina 140 MW (OMVS, 2022) joins Manantali 200 MW; Senegal River potential ≈ 1,200 MW
- 6 mini/micro-hydro sites identified under SREP, incl. Farako and Woroni

WIND

Hybrid partner in the north

- Senegal: Taiba N'Diaye 158.7 MW + 40 MW battery. Mauritania: Boulenouar 100 MW
- Mali's Sahel-Sahara winds 3–7 m/s: hybrids for northern towns, after measurement

BIOMASS

Modernise, not expand

- Biomass is 63% of Mali's final energy use (2024), mostly firewood and charcoal
- Role: biogas, agro-residue power and clean cooking;

Sources: Akuo; Wikipedia list of Malian power stations (Touna, Ségou, Sikasso: to confirm with EDM); Bamada/L'Indicateur du Renouveau (9 Nov 2026); Afrik21; OMVS/Enerdata; AfDB PDM-Hydro ESMP; Masdar; Trade.gov; Enerdata (2024); API-Mali.

Six barriers slow the transition, and each one has a working fix

Barrier	Evidence	Solution
Cost of capital and risk	Assumed cost of capital: 12% in Africa vs 3.8% in Europe	Concessional GCF tranches, guarantees, Desert to Power IPP Joint Protocol (2025)
Grid and storage	Demand ≈ 1,200 MW vs ≈ 800 MW of output (2024)	Storage with every new plant (Safo 2, Koulikoro: 50 MW + 25 MW storage); mini-grids off the grid
Skills	Technicians scarce outside Bamako (to quantify)	Train-the-trainers, certified installers, CIRTA demonstration centre
Security	Sahel countries moistly depend on fuel import	Distributed solar needs no fuel convoys; local ownership and O&M
Policy enforcement	RE equipment exempted from VAT and duties since 2020	Publish the eligible-equipment list; digital exemption window, as Côte d'Ivoire did in 2026

Sources: IRENA (2025); Capmad (2024 demand); AFP and Inquirer (EDM debt); AFP/Saudi Gazette (Nov 2025); Financial Afrik (18 Mar 2020 ordinance); Capmad (MESIP, Aug 2026; CI platform, 2026); Bamada (9 Nov 2026).

Climate finance and policy can turn pilots into a national programme

FUNDERS
GCF · AfDB · KfW · private investors · carbon buyers

National DAE

PROJECTS
Agrivoltaics · resilient farming · mini-grids · productive use

PEOPLE
Farmers, SMEs, women and youth in Mali

Tax relief
RE equipment exempt from VAT and import duties: ordinance adopted 18 March 2020; only PCS and statistical fee remain.

Direct access
25% of new GCF funding through NationalDAEs. Decisions made closer to the field.

Blended finance
GCF and Africa50 joined Desert to Power. Mauritania signed its first solar-wind IPP: USD 300 M.

Carbon markets
Kita alone avoids ≈ 52,000 t CO_2 a year. Verified credits can add revenue (to be structured).

Sources: Financial Afrik (Council of Ministers, 18 Mar 2020; ordinance number to confirm with DGD); GCF press release B.44; PV Tech; PV Magazine (Oct 2025); NS Energy (Kita, Akuo).

A 100% renewable Mali by 2035 is fundable: three asks today

2035 SCENARIO: EXPLICIT HYPOTHESES

Power	H1: ≥ 1 GWp solar + storage by 2035 (> 500 MWp already operating, building or announced) replaces most thermal output
Imports	H2: 80% of thermal power production ≈ 500 M L/yr diesel displaced → ≈ 400 M L and ≈ FCFA 250 bn saved per year
CO_2	H3: 400 M L × 2.68 kg CO_2/L ≈ 1.1 Mt CO_2 avoided per year (calculation)
Access	H4: rural access from ≈ 25–31% to the 61% national target via mini-grids and solar pumps
People	H5 (target): 10,000 technicians and PUE entrepreneurs trained, ≥ 50% women and youth

THREE ASKS

1. **GCF · AfDB · KfW**
   Smart Climate finance mecanisms
2. **Government AEDD · AMADER · AER-Mali**
   Atraftive policy, Tax exempt-equipment is operational.
3. **Investors · Private Sector NGOs**
   Important role to play in implementation government electrification policy

If it works in the Sahel, under pressure, it can work anywhere in Africa.

Hypotheses are MFC Nyetaa scenario assumptions, not forecasts. Data: H. Sow via ZAM (diesel); AfDB/CIF (61% rural target, 2033); AMADER via AP, Africanews (rural access); standard diesel factor 2.68 kg CO_2/L.

Read more:

Mali Folkecenter Nyetaa

www.malifolkecenter.org

INFORSE-Africa - www.inforse.org/africa/

INFORSE-AFRICA
International Network for Sustainable Energy

UNFCCC COP31 Side Event Proceedings: inforse.org/cop31.php