Africa’s Clean Energy Project Updates November 2025

A monthly snapshot of project announcements and trends powering Africa’s energy transition

Executive Summary

- **November’s project pipeline reveals Africa’s clean power transition is now system-led, not just capacity-led.**
- Analysis of recent generation, storage, transmission, and distribution projects across African power markets points to a clear inflection in how energy systems are being developed. The focus is shifting away from headline capacity additions toward system design, resilience, and deliverability.
- ≈11.8 GW of clean energy and grid capacity was tracked across 35 projects in 20 countries, driven largely by a small number of large, Utility-scale assets.
- Solar-led projects dominated new announcements, including hybrid configurations, yet storage pairing remained selective, highlighting persistent grid flexibility constraints.
- 9.8 GW of major generation programmes announced across Africa (DRC 4 GW, Botswana 3 GW, Tunisia 2.8 GW).
- 7 of 15 solar projects announced in November included battery energy storage, signalling rapid hybridisation.
- Up to 800 MWh of storage tied to a single utility-scale project (Zambia Copperbelt solar + BESS).
- Multiple projects reaching execution milestones (IPPAs signed, financial close achieved, phased commissioning underway), not just announcements.
- Execution credibility is becoming as important as ambition. Initiatives backed by secured financing, institutional alignment, and clear delivery pathways are standing out over large but early-stage announcements.

The Month at a Glance

Executive dashboard | November 2025

11.8 GW

35 projects

20 Countries

Top story

Tunisia secured World Bank approval for a new energy transformation project with a planned capacity of 2.8 GW, focused on strengthening grid infrastructure, improving power-sector performance, and accelerating renewable energy integration to enhance system reliability, reduce emissions, and support a more resilient electricity system.

While DR Congo (4 GW) and Botswana (3 GW) signal ambition, they remain framework-level announcements with material uncertainty around sequencing, financing, and execution.

Top 3 projects announced > 80% of capacity announced

- Operational – 174 MW
- Under Construction – 470 MW
- Planned – 11,334 mw

Key movers

Top Projects Announced (by Country)

DR Congo — 4 GW
Botswana — 3 GW
Tunisia — 2.8 GW

Top Projects Announced (by Energy Type)

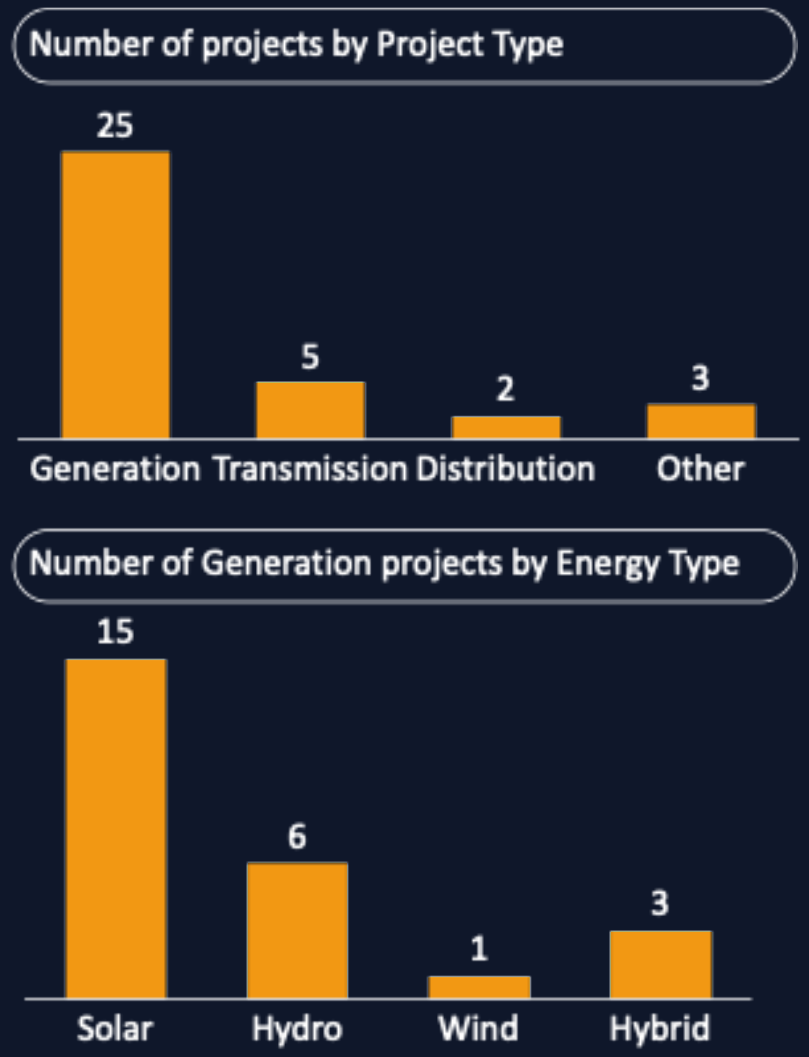
Solar: Sidi Bouzid Solar Power Project: 550 MW (Planned)

Hydro: Mpatamanga Hydropower Project: 359 MW (Planned)

Wind: Aysha II Wind Power Project: 80 MW (Under construction)

Electron Intelligence

Projects Announced Overview



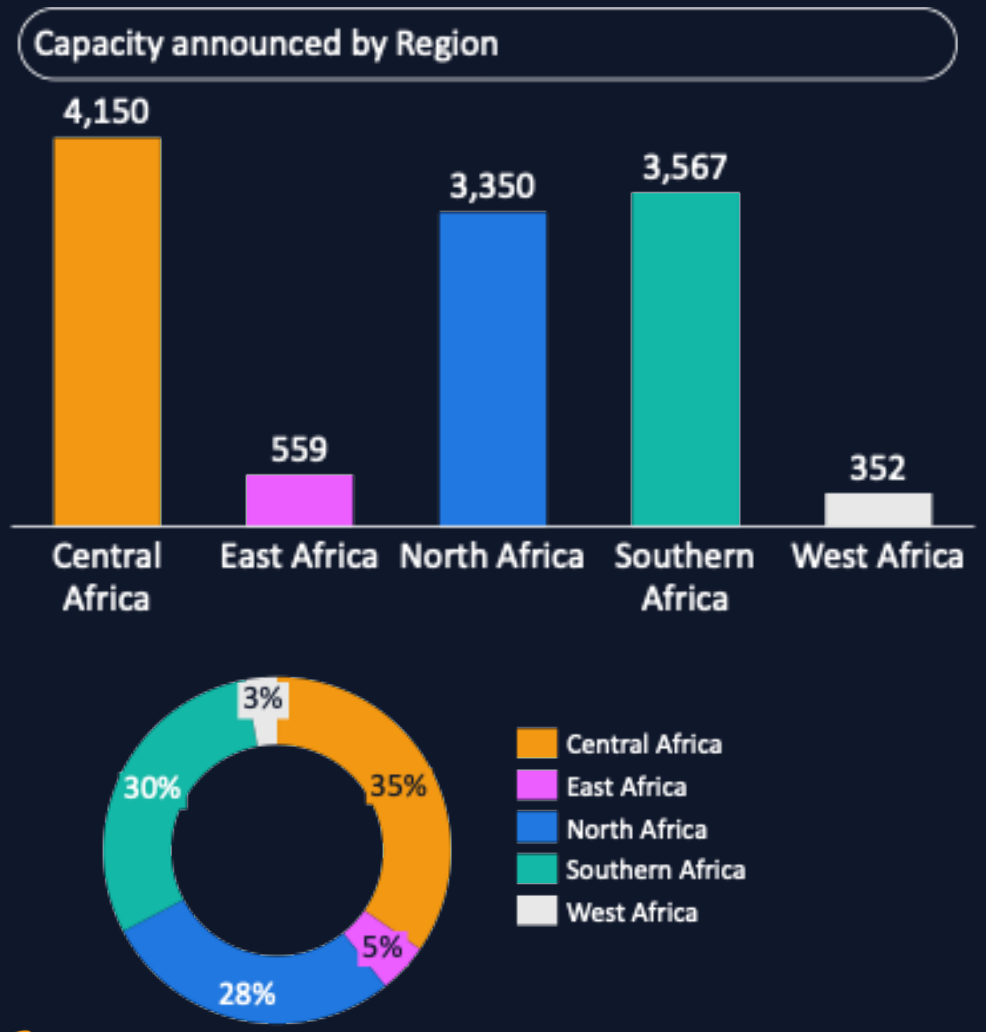
Most announcements fall under generation, dominated by utility-scale solar and hydro projects

- These projects are primarily aimed at closing supply gaps, improving energy access, and supporting near-term capacity expansion, particularly in power-deficit and fast-growing markets.
- Solar remains the dominant entry technology. Transmission materially shaped headline capacity. Wind activity was limited, both in number and scale.
- The emphasis is less on announcing capacity in isolation and more on how projects are contracted, integrated, phased, and anchored to demand. Storage, concessional finance, and institutional alignment appear repeatedly as the mechanisms that turn ambition into execution.
- Across Ethiopia (Aysha II wind), Zambia (Cooma solar), Chad (AXIAN solar + storage), and Tunisia (WB-backed programme), generation projects are framed alongside grid integration, offtake agreements, or storage. This suggests a gradual move away from standalone generation announcements toward projects that are designed to fit existing system constraints, whether through IPPAs, phased commissioning, or hybrid architectures.
- Several projects (Cooma, AXIAN Chad, Mossel Bay, Empower New Energy, institutional solar in Nigeria and South Africa) integrate BESS explicitly.

Top 10 Generation Projects Snapshot

ENERGY TYPE	OWNER	COUNTRY	STATUS	MODEL	CAPACITY (MW)	GRID CONNECTION
Hybrid	Government of DRC	DR Congo	Announced	BOOT	4,000	On Grid
Hybrid	Oman Investment Authority & Botswana Govt	Botswana	Planned	Public Utility	3,000	On Grid
Hybrid	Government of Tunisia	Tunisia	Planned	Public Utility	2,800	On Grid
Solar	Government of Tunisia	Tunisia	Planned	BOOT	550	On Grid
Hydro	Government of Malawi	Malawi	Planned	BOOT	359	On Grid
Solar	GenVision / Tatanga Energy / A MDG	Zambia	Planned	BOO	300	On Grid
Solar	LMI Holdings / partners	Ghana	Under Construction	BOOT	200	On Grid
Solar	Secondary Schools	South Africa	Operational	Public Utility	124	Off Grid
Hydro	JIRAMA	Madagascar	Under Construction	BOOT	120	On Grid
Solar	Ministry of Energy (Chad)	Chad	Planned	BOO	100	On Grid

Regional Breakdown: Generation



- North Africa: Tunisia's programme stands out not because of headline MW alone, but because generation is framed within grid readiness, utility reform, and multilateral financing.
- West Africa: West Africa shows the widest diversity of generation types, ranging from utility-scale solar (Ghana, Guinea, Liberia, Ivory Coast) to mini-grids(Nigeria, Liberia) and Micro grids (Nigeria(. Many projects are framed around access, resilience, and reliability, with concessional finance and development partners playing a visible role.
- East Africa: Ethiopia's wind project highlights a phased commissioning and delivery narrative, with emphasis on initial MW coming online and incremental progress toward full capacity. Generation remains state-led and utility-centric, tied closely to national planning and export ambitions
- Southern Africa: Southern Africa shows a strong tilt toward bankable, grid-aware generation. In Zambia, solar projects are tied to IPPAs, storage, and industrial demand, reflecting grid constraints and the need for dispatchability. South Africa's projects span utility, municipal, and mining-linked generation, often combined with storage or hybrid systems. Botswana's multi-GW announcement signals ambition, but still sits at a framework stage.
- Central Africa: Central Africa exhibits the largest contrast between ambition and system readiness. Chad's solar-plus-storage project is explicitly designed to reduce reliance on thermal power and improve stability, while the DRC's 4 GW programme reflects industrial-scale aspiration tied to mining and economic transformation.

The Project Stack: Hybrid Dominates

>80% hybrid projects announced in November 2025

Hybrid Projects

>80%

Solar + Wind + Hydro + Storage projects

9,800 MW
Total Hybrid capacity

4,000 MW
DR Congo (≈41%)

3,000 MW
Botswana (≈31%)

2,800 MW
Tunisia (≈29%)

What drove the stack

- Three hybrid projects account for over 80% of capacity announced in November. Each located in Central, North and Southern Africa.
- With proposed capacity of 4,000 MW exceeding the country's estimated 3,646.5 MW installed capacity in 2024, the initiative is less about incremental electrification and more about resetting the power system to support mining, industry, and economic transformation. However, the absence of clarity on plant locations, timelines, financing, and grid readiness means execution risk remains high.
- Botswana's proposed 3 GW pipeline creates energy optionality beyond coal, supporting long-term electrification, industrial growth, and potential participation in Southern African power trade.
- Tunisia's energy transition is now being driven by grid and system reform, not just new generation. This signals that in more mature African power markets, the binding constraint is no longer capacity, but the ability of the grid and utilities to integrate, manage, and reliably dispatch power at scale.

Storage is moving from pilot deployments to system-scale infrastructure

Solar-plus-storage is scaling first at the utility and municipal level, not just at the edges of the system.
the system.

Utility-scale systems

300 MW + 800 MWh (Northern Power, Zambia)

100 MWp + 50 MWh (AXIAN, Chad)

These projects are designed for industrial load support, grid stabilisation, and deficit reduction, especially in mining-heavy or thermally dependent systems.

Utility-grade BESS projects are primarily being driven by established IPPs, integrated energy developers, and utility-adjacent actors that understand grid constraints, dispatch requirements, and long-term system economics.

Municipal and infrastructure-grade systems

Mossel Bay hybrid microgrid (4.6 MWh BESS)

These systems prioritise continuity of service, load shedding immunity, and cost optimisation, blending solar, storage, and diesel into a resilient architecture.

Social infrastructure systems

Empower New Energy (4 MWp + 3.5 MWh

Schools and healthcare installations (10–720 kWh scale)

storage is deployed for autonomy, uptime, and mission-critical reliability, not grid services.

Storage is becoming the default insurance layer for essential services, not an emergency backup.

Solar projects with integrated BESS and without

- IPPs drove >99% of storage volume
- Southern Africa dominated BESS capacity projects
- November's storage capacity is being deployed by credible developers with long-term operating intent, signalling storage's transition into a mainstream asset class.

Electron Intelligence

SPOTLIGHT: GENERATION PROJECT OF THE MONTH

DR Congo: Sun Africa 4,000 MW Renewable Expansion Program

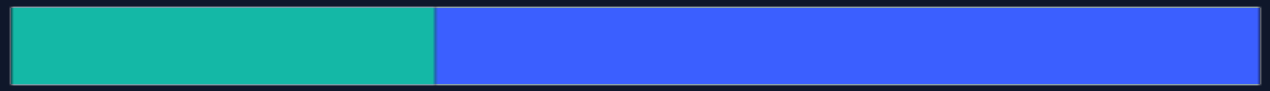
A system-resetting renewable programme that exceeds the DRC's existing power capacity

Integrated generation build-out with enabling grid infrastructure

4,000 MW
Solar, Hydro, BESS

07 Nov 2025
Announcement

3,646.5 MW
Estimated total installed capacity



4,000 MW
DR Congo

7,798 MW
Other Generation Projects

What to watch

- Project sequencing and phasing: How the programme is rolled out in stages will determine capital efficiency and early impact.
- Offtake and demand alignment: The extent to which mining and industrial demand is contracted alongside capacity build-out will shape bankability.
- Grid and system integration: Progress on transmission and system readiness will indicate how quickly generation can be absorbed and scaled.

What it unlocks

- Industrial-scale power supply to support mining, manufacturing, and economic transformation.
- System expansion beyond scarcity, shifting the DRC from chronic power deficit toward surplus potential.
- Scale economics that can lower unit costs and improve project bankability over time.

Why this project matters

- A 4 GW programme shifts the DRC from marginal projects to portfolio-scale opportunities.
- May trigger follow-on investment in transmission, storage, and grid services, expanding the addressable market.

SPOTLIGHT: TRANSMISSION PROJECT OF THE MONTH

Morocco: Boujdour–Tensift UHV Transmission Line

A system-level grid upgrade to support renewable integration and cross-regional power flows

Boujdour–Tensift Ultra-High-Voltage Transmission Line

≈1,000 km	26 Nov 2025	≈2 GW
Ultra-high-voltage transmission line	Announcement	Renewable power transmission capacity

Morocco's distributed solar potential is estimated at 28.6 GW, capable of generating 66.8 TWh annually and supporting a $31 billion market

What to watch

- UHV projects are technically demanding, capital-intensive, and long-dated, making procurement, right-of-way, and delivery timelines critical risk factors.
- How effectively the new line is matched with actual renewable build-out and grid operations will determine whether its full capacity is utilised or underused.
- Whether this transmission investment triggers new generation tenders, storage deployment, or cross-border power flows will be the real test of impact.

What it unlocks

- Large-scale renewable generation by enabling long-distance power evacuation from resource-rich regions.
- Grid efficiency, reliability, and system stability through higher-capacity, lower-loss transmission.
- New renewable investment, future demand growth, and regional power trade by removing transmission constraints.

Why this project matters

- UHV transmission allows much higher power transfer over long distances with lower losses, fundamentally changing what the grid can handle compared with conventional HV lines.
- High-capacity lines reduce congestion, curtailment, and losses, improving the overall economics of the power system.

Market Signals: Emerging Trends

What November revealed — and what to watch next

NOV 2025 → NEXT 90 DAYS

Resilience-First System Design Is Becoming the New Baseline

- Grid weakness, outages, and congestion are no longer treated as temporary constraints but as structural realities.
- Accelerated hybrid configurations, storage-led architectures, and phased commissioning strategies are becoming the norm.

Execution and Sequencing as Competitive Advantage

- The ability to sequence generation, storage, and transmission coherently, and to move projects from announcement to operation, is emerging as a competitive advantage.
- As multi-GW announcements proliferate, attention is shifting toward who can contract, finance, and commission assets on schedule.

Demand-Led Power Development is reordering market dynamics

- Generation is increasingly being pulled by identifiable industrial, municipal, and institutional demand rather than pushed solely by policy targets.
- This demand-anchored approach is reshaping project sizing, location, and technology mix, reducing merchant risk and improving bankability in select corridors.

Capital and Policy Are Converging Around Platforms, Not Projects

- Capital is migrating toward expandable platforms and long-life infrastructure rather than one-off assets.
- Investors are favouring portfolios that offer scalability, optionality, and performance-based capital deployment.

NEXT SIGNALS (Q1 2026 WATCHLIST)

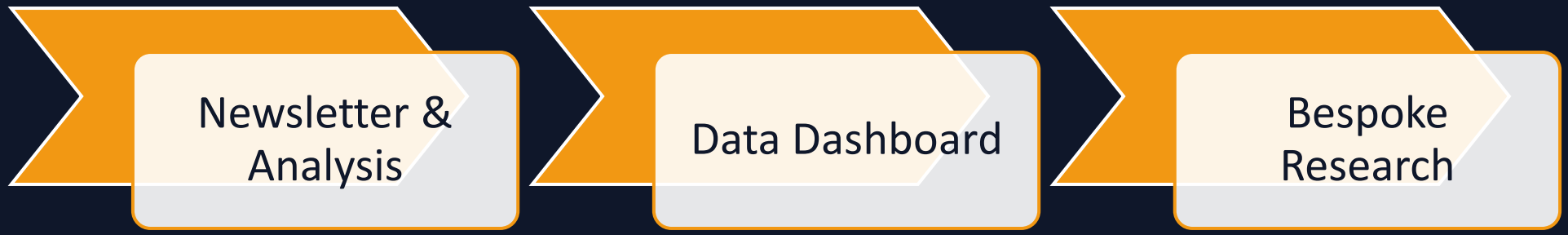
Storage to underpin bankability

Country-level execution risk matters as much as project-level fundamentals.

Projects are valued for system impact, not just installed capacity.

Electron Intelligence LTD

A full-cycle market intelligence layer for Africa’s energy-electron markets.



Contact Us

Email:
info@electronintel.io

Website:
www.electronintel.io

Follow us on LinkedIn and Twitter for updates

Electron Intelligence