

Title

EnergyAI

Powering Africa with Intelligent Renewable Energy

Open-source | AI | IoT | Community Impact

Presented by:

- Chibueze Iwuala – Lead Developer & AI/IoT Systems Specialist
- Prof. Chiso Ndukwe – Project Lead & Professor of IT

The Problem – Nigeria’s Energy Crisis

- Over **85 million Nigerians** lack access to reliable electricity
- Rural electrification rate is under 40%
- Diesel generators dominate, with huge economic and environmental cost
- The national grid is fragile, centralized, and prone to blackouts
- Limited digital control and forecasting tools in local microgrid systems






The Solution – EnergyAI

EnergyAI is an open-source platform integrating **AI** and **IoT** to optimize the generation, distribution, and storage of renewable energy in decentralized systems like:

- **Mini-grids** (serving communities or districts)
- **Solar Home Systems** (SHS for rural and urban homes)

It brings intelligent forecasting, load balancing, offline access, and carbon tracking — all tailored for African energy environments.

Core Features

-  **AI-based forecasting** using local weather, dust, and solar irradiance data
-  **Battery optimization modules** for longevity and resilience
-  **Offline-first architecture** with edge-based IoT control
-  **Load management** via smart demand-response logic
-  **Integration with existing “Zombie Energy” hardware** where possible

-  **Carbon and usage tracking** to support ESG reporting




Why Now?

- Surge in decentralized solar across Africa (esp. Nigeria, Kenya, Ethiopia)
- Governments and NGOs are investing in clean microgrids
- Climate tech and AI-based impact tools are gaining global traction
- Lack of localized, open-source software to support these systems
- EnergyAI fills the **software and intelligence layer gap** in this ecosystem

Market Opportunity

- \$100B+ projected value in off-grid, distributed energy infrastructure by 2030
- Nigeria alone has potential for 4,000+ mini-grid zones
- Direct buyers: NGOs, local governments, EPC firms, solar developers
- Indirect impact: health clinics, farms, schools, urban neighbourhoods

Business & Sustainability Model

-  **Open-source core (AGPL)** for transparency, security, and global contribution
-  **Grants and seed funding** to build and pilot core tools
-  Future monetization via:
 - Enterprise dashboards
 - Custom integrations for partners
 - Data analytics services
 - White-label deployment for solar operators

Team

Chibueze Iwuala

- Founder, Iwuchi Technologies LTD
- Co-founder, Kowatek Solar LTD
- Lead Developer, AI/IoT Systems Specialist
- Background in embedded systems, clean energy engineering

Prof. Chiso Ndukwe

- Project Lead & Professor of IT
- 20+ years experience in digital infrastructure and innovation

- Advisor to public-private partnerships on sustainability

Roadmap (Next 12 – 18 Months)

Timeline	Milestone
Months 1–3	Finalize architecture, data models
Months 4–7	Core platform development (AI + UI + security)
Months 8–10	Deploy pilots in 2 African countries
Months 11–12	Launch open-source community + training materials
Months 13–14	Begin scaling to new regions with partners

Funding Ask – \$96,000 USD

We are seeking **\$96,000 USD in seed funding** to achieve critical milestones across product development, pilot deployment, and community training.

Budget Breakdown:

Category	Amount
Core Software Development (AI, UI, security)	\$35,000
IoT Hardware & Sensors	\$20,000
Pilot Deployments (Nigeria + 1 country)	\$25,000
Community Training & Field Testing	\$10,000
Website, Documentation, Community Building	\$6,000
Total	\$96,000

Impact Goals

- Electrify **10+ underserved communities**
- Train **100+ local technicians and energy workers**
- Offset **50 tons of CO₂** in pilot phase
- Enable **open collaboration** across Africa’s energy sector
- Build a **developer and partner community** around open-source clean energy tools

The Ask

We invite mission-aligned investors, grant-makers, and ecosystem partners to:

- Join our **\$96,000 seed round**
- Partner with us on deployment, testing, or research
- Empower local innovation for a sustainable energy future

Contact & Follow-Up

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