RURAL ELECTRIFICATION AGENCY

ELECTRIFYING RURAL NIGERIA

Case Study: HUSK. Power Systems

OVERVIEW

US-based Husk Power Systems ("Husk") pioneered the minigrid industry in 2008 and now owns and operates more than 200 minigrids serving communities in rural Africa and Asia -- the largest fleet across the two continents. In 2020, Husk entered Nigeria and in less than 24 months had a dozen solar minigrids operating in Nasarawa State. Under its "Nigeria Sunshot" initiative ,Husk expects to have 100 minigrids in Nigeria by 2024 and 500 by 2026, covering at least five states. The Nigeria Electrification Project (NEP), administered by the Rural Electrification Agency (REA) and funded by the World Bank, has been a fundamental reason for Husk's rapid scale and success in Nigeria, by providing results-based financing, supporting productive-use initiatives and creating an enabling business environment.

CHALLENGE

Nigeria has 90 million people still living without access to electricity, thus requiring 19.8 new connections to achieve universal energy access.

The lack of energy access is stifling the rural economy as small businesses, farmers, health clinics and schools in rural Nigeria remain unserved. Their only options for power and light are diesel and petrol generators or kerosene, which are expensive and polluting. Grid extension is also not a near-term option. For a country that relies heavily on agriculture, most farming activities are still unmechanized. The absence of electricity is the fundamental barrier to economic growth, increased employment and wealth creation.

SOLUTION

Community minigrids, which include solar generation and battery storage combined with local transmission and distribution networks, offer the fastest, most cost-effective pathway to rural electrification, according to the World Bank and the International Energy Agency. NEP estimates that Nigeria needs as many as 10,000 solar minigrids to provide 8.9 million new connections, and is providing financial support to companies like Husk to achieve that goal.

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ENERGY × EMPOWERMENT × EFFICIENCY

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"REA and the Nigeria Electrification Project are committed to mobilizing private capital to ensure that every person in the country has access to energy and the means to live a productive life. Husk is a great example of that commitment turning into reality."

– Abba Aliyu, NEP Head

RESULTS

Husk has already benefited 50,000 people in Nigeria with its 12 minigrids, and expects to benefit more than 2 million when it achieves its target of 500 minigrids. For rural businesses served by Husk, the impact has been exceptional: many have replaced their diesel generators and are experiencing savings of 30% on their monthly energy bill by switching to solar power. In addition, local health centers and public institutions are benefiting from connections to Husk minigrids. Security has also improved with the installation of street lighting, while children are able to study better and for longer periods.

ABOUT REA

The Rural Electrification Agency (REA) of Nigeria, an agency of the Federal Government of Nigeria under the Federal Ministry of Power, is committed to the electrification of unserved and underserved communities, with the aim of catalyzing economic growth and improving quality of life for Nigerians. The REA is currently administering the Rural Electrification Fund and the Nigeria Electrification Project, having obtained more than $550 million in financing to deploy solar hybrid minigrids and solar home systems.

HUSK POWER: BY THE NUMBERS*

- 2 million people impacted
- 500 minigrids
- 900 clinics and schools connected
- 25,000 generators displaced
- 5,000 MSMEs served
- >2,500 km T&D network

*2026 Projections

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