



Engreen 360

ENABEL Rural Electrification – Mozambique





The Belgian Development Agency ENABEL, in partnership with the National Fund for Energy (FUNAE), launched the Renewable Energy for Rural Development (RERD) program to expand access to clean energy in remote areas of Mozambique.

Through this initiative, a consortium led by ESI SpA, with Engreen as EPC partner, was awarded a contract for the design and construction of three solar mini-grids in Mugulama (Zambézia), Muite, and Milhana (Nampula).

These systems were conceived to provide reliable, renewable power to households, schools, and local enterprises — supporting rural development and economic inclusion.

Challenges

- Remote and logistically complex locations: difficult access routes and limited existing infrastructure
- Environmental and social sensitivity: the need for low-impact engineering and community alignment
- Sustainability beyond construction: ensuring reliable long-term operation and maintenance capacity
- Multistakeholder coordination: alignment between ENABEL, FUNAE, local authorities, and contractors under strict compliance and reporting frameworks





The solution with our 360 approach

Engreen applied its Engreen 360 model – an end-to-end project framework integrating Strategy, Design, Implementation, Operation, and Training to ensure long-term performance and local ownership.

Strategy	Conducted site assessments, energy-demand mapping, and productive-use analysis to align capacity with real community needs.
Design	Engineered hybrid PV–battery–diesel systems optimized for reliability, modularity, and ease of maintenance. Developed environmental and social management plans compliant with ENABEL and FUNAE guidelines.
Implementation	Oversaw procurement, logistics, and works supervision, ensuring quality and safety throughout construction.
Operation	Defined management and performance-monitoring frameworks to ensure consistent power delivery and accountability.
Training	Delivered hands-on training for FUNAE technicians and local operators on O&M, safety, and system diagnostics.

Results

- 3 off-grid mini-grids installed, each providing continuous, clean electricity to rural communities previously without access
- Over 10,000 beneficiaries now connected to power for homes, schools, and small businesses
- Local capacity strengthened, enabling autonomous operation and maintenance
- A replicable model for rural electrification adopted by ENABEL and FUNAE for future programs



Engreen - from vision to impact

At Engreen, every project begins with a vision — and becomes reality through a complete, integrated process.

Engreen 360 is our signature approach: a model that connects strategy, technology, and people to ensure that each step of the sustainability journey delivers measurable impact.

We manage the entire lifecycle of an energy project, combining strategic foresight with hands-on execution and long-term capacity building.

Our multidisciplinary team translates complex challenges into coherent, scalable solutions — guiding partners from early planning to full operational maturity.

Strategy – We assess needs, map opportunities, and define the most effective roadmap for sustainable growth.

Design – We turn ideas into detailed technical, financial, and environmental blueprints, tailored to local contexts.

Implementation – We build, supervise, and ensure quality through every phase, bridging design and reality.

Operation – We monitor, optimise, and maintain systems for reliability and performance over time.

Training – We empower local teams with the knowledge, tools, and confidence to operate autonomously.

This 360° approach allows Engreen to act as one integrated partner, capable of connecting innovation, engineering, and community value — ensuring that sustainability is not only designed but lived, maintained, and multiplied.

Partner with us to turn strategy into action

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