

MINISTÈRE DE L'ENERGIE ET DE L'EAU

REPUBLIQUE DU MALI
Un Peuple-Un But- Une Foi



AMADER

Agence Malienne pour le Développement de
l'Énergie Domestique et de l'Électrification Rurale

L'énergie pour tous



State of Rural Electrification in Mali

Huge challenge: Mali has more than 12,000 villages and only 500 with access to electricity.

To ensure access for the majority of Malians to basic energy services in rural areas, the Government of Mali created **AMADER** in May 2003 to implement the rural electrification policy aimed at the economic development of rural areas through access to modern energy services.

- The strategy adopted in rural electrification is based on a Public-Private Partnership (PPP).
- The mini-grids operation is ensured by the private operator who is in charge of their maintenance and replacement as part of a contract with AMADER to provide public electricity service.

The electrification activities of AMADER under PPP with private operators have achieved the following results:

- Electrification of **300 localities** with mini-grids in Mali;
- **49 localities** have PV/Diesel hybrid solar power plants and functional;
- **22.64 Megawatts** of installed capacity;
- More than **3.9 Megawatt-peak** in installed PV hybrid systems;
- More than **1200 km of LV** line and more than 160 km of MV line installed;
- **1,047,800 people** benefiting from electricity services;
- More than **1,500** permanent jobs created;
- **67 private operators** providing the public electricity service in rural areas (**300 localities**);

- **190** PV/Diesel hybrid solar power plants with a capacity of more than **20 MWp** in progress by 2021;
- **2 purely solar PV** plants with a capacity of 1.5 MWp each;
- **216 mini-grids** in progress in the next two years;
- **13,148** domestic and community solar system installed;
- **120 operators** were trained on the operation of hybrid plants; the MV/LV electrical network; Accounting and Commercial Financial Management;
- **40 trainers** from the MEN and MEFP Pilot Establishments were trained by the FE / EDF Project.

What did not work?

- non-compliance with the specifications, the non-strict application of operating instructions for equipment, leading to their early deterioration with more or less serious consequences on the provision of services.

- Lack of organization and competence of the operators' staff in the field on technical, commercial and financial management.
- The insufficiency of financial results of the operators due to:
 - lack of operating subsidies for RE projects;
 - random collection of invoices;
 - weak technical, financial and managerial capacities of the operators.

What more needs to be done to meet the ambition of the rise of mini-grids at the policy and project level?

- Focus on hybrid production sources (solar/diesel or other RE/solar sources); in any case, get rid of 100% diesel;

- Conduct **training for private operators** to ensure better use of existing facilities and improve the quality of energy services provided to rural populations (operation & maintenance, demand management, better technical & financial management);
- Strengthen teachers / trainers to capitalize on the introduction of **specific training modules on rural electrification in schools/training centers**;
- **Create a training and development center specialized in rural electrification**, with focus on renewable energies.
- Put in place a **provision mechanism** for the equipment maintenance/replacement to ensure the durability of the facilities: set up a supervision and remote monitoring system to manage all the sites in the country.

KEY IMAGES OF THE WORK IN PROGRESS UNDER THE SHER PROJECT ON FINANCING THE WORLD BANK AND THE SREP - 50 LOCALITIES: 6.8 MWp

Kacoungo solar PV : 260 KWp





Battery Room



GE Room. 2X175 KW



Battery and Network UPS Room

Garalo solar PV : 175 KWp

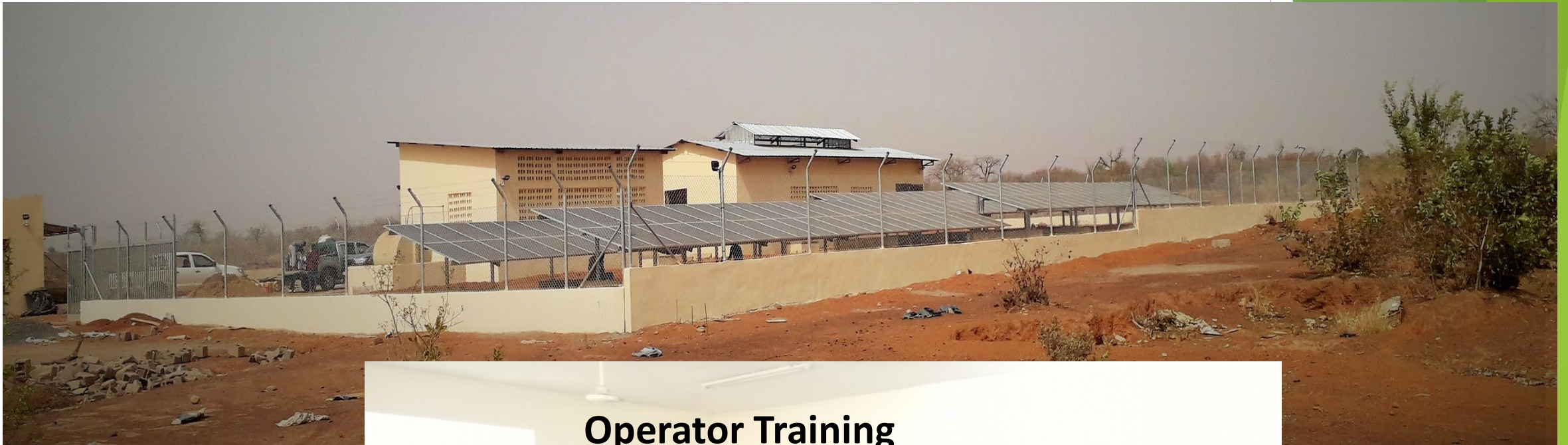


Garalo inverters room

Yorobougoula solar PV: 75 KWp



Madina SACKO solar PV: 50 KWp



Mafele solar PV: 85 KWp



Loulouni solar PV: 110 KWp



Fourou solar PV: 245 KWp



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