

ADEME



Agence de l'Environnement
et de la Maîtrise de l'Énergie

Club ADEME
International

eLum
ORCHESTRATE ENERGY & DATA

ELUM ENERGY

Solar Hybrid Power for a Medical Research Center

In this complicated retrofit project, 7 new PV plants were added to the existing 2 PV and diesel plant (6 DGs) along with the HFS controller to maximize PV penetration even during grid black outs.

ePowerMonitor interface is displayed on screens in the Center of research in Gambia, allowing for detailed monitoring of the production (diesel, solar and grid) and load consumption.

Goals

The goal of this project was to reduce the consumption of fuel and allow self-consumption through PV energy for a medical building.

They also wanted to improve their local communication by displaying on a screen the reduction of CO2 emission.

Foreign partners

AZIMUT
CRÉATEUR DE SOLUTIONS NUMÉRIQUES

 Fajara, Gambia



Intervention time
15 days



Total cost
600 000 \$



Engaged workforce
6-0

Thematic



Prestations provided

Services
Livraison d'équipement /
Mise en service

Main stages

The main stages of this project are as follows :

- Studies of existing generators
- Design of the roof installation
- Sizing
- System installation
- Deployment of the monitoring and control solution

Customers

This project was led by Elum Energy, Azimut 360 SCCL, the Women-only MBolo Association installation team, and the MRC Unit Gambia.

It is the biggest solar power generation system installed in the Gambia.

The installation significantly reduced operating costs for the research center, reducing reliance on the national grid and their diesel generators by using the Elum Energy HFS Fuel Saver Controller and its monitoring platform, ePowermonitor.



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Post-project results

Through our partnership with Azimut 360, we all followed the women of the M'bolo association who developed their technical skills throughout the installation—allowing Elum Energy to be part of those women empowerment.

Environnemental impact

The environmental contribution since commissioning are the following :

- 133 756 L of fuel reduction
- 378 t CO2 emission reduction

During the last 30 days, the medical center's overall energy mix was shared between the grid, the solar energy, and the gensets, representing respectively 69.1%, 23,3%, and 7,6% of the energy used.

With more than 130 members, the Club ADEME International assists the SMEs in its network in the development of innovative projects and international partnerships. The objective is to participate in the dissemination of French knowledge, by supporting the private and public sector in the ecological and energy transition sector in order to meet global environmental and climate challenges.

More information : www.clubinternational.ademe.fr

