



A solution designed to sustainably electrify rural areas

By 2020, 850 million of people around the world still do not have access to electricity*. Despite technical advances and public policies, experts predict that 650 million inhabitants will still not be connected by 2030, i.e. 10% of the world's population. 90% of them will live in rural areas of sub-Saharan Africa*.

Electricity is vital to ensure the basic needs of local communities, such as education and health, but also for the development of the economic activities of small businesses and industries, which helps create jobs and avoid rural exodus.

In terms of electrification of rural areas, the challenge is therefore to accelerate, relying on two key vectors:

- **renewable energy** on the one hand, whose potential in Africa, particularly solar, is immense,
- the deployment of **off-grid or mini-grid solutions**, on the other hand, which avoids prohibitive costs and the complexities of extending traditional power grids in some regions.

CMR GROUP HAS BEEN INNOVATING FOR MORE THAN 60 YEARS FOR SUSTAINABLE ENERGY

CMR Group is a French ETI, a **recognized global player** in instrumentation, present in the fields of energy, industry and marine. The Group has **700 employees** and about ten subsidiaries worldwide. It generates **an annual turnover of 60 million euros, 95% of which internationally**.

With its pioneering spirit and its capacity for innovation, the company has been taking an active part in **the energy transition** for several years with solutions in **offshore wind energy, hydroelectricity and photovoltaics**. CMR Group has a strong presence in Africa with its subsidiary GreenElec specializing in hybrid and solar systems and present in Tunisia and Nigeria but also through its multiple partnerships with local companies enabling the creation of value and finally through a strong portfolio of projects in sub-Saharan Africa notably in Chad, Ghana and Burundi for electrification projects in rural areas.

To meet the need for electrification in rural areas, CMR Group has developed an innovative mobile **and off-grid "turnkey" solar mini power plant solution called "Hylios"**.

HYLIOS, A SOLUTION DESIGNED TO QUICKLY SUPPLY ISOLATED AREAS WITH ELECTRICITY

Hylios, a containerized **"all in one"** mini power plant, produces photovoltaic energy, allows its storage and has a remote energy mix managing system. It can be associated with a thermal group, thus securing the energy supply.

Mobile and flexible, it is deployed and operational in less than a day and folds quickly in case of need.

It is **economical** thanks to optimized transport (everything is in a container), its installation is inexpensive in terms of civil engineering and manpower, its maintenance and operational costs are reduced. As a French solution, Hylios benefits **from the technological innovations** of the CMR Group, while being solid and sustainable, designed to respond to harsh weather conditions.

As an “off-grid” mini power plant, it allows to meet urgent, temporary or permanent, scalable electrification needs in areas not covered by electricity networks, in Africa, Asia, South America, the islands...

“Plug & Power”, it is ready to be connected to the electrical network of a **hospital, a university, a village, an industrial or agricultural facility**... and thus contributes to the improvement of the living conditions of local communities and to the economic development of these regions. It **ensures a reliable** continuous supply of electricity, avoids power cuts and their consequences (loss of production, learning time, medicines, etc.).

THE HYLIOS RANGE

20-foot container	<ul style="list-style-type: none">• Power: 72KWp• 200 solar panels and a footprint of 200m²• Monitoring for remote management/piloting
40-foot container	<ul style="list-style-type: none">• Power: 184KWp• 400 solar panels and a footprint of 400m²• Monitoring for remote management/piloting
2 options	<p>Pure solar : Solar power plant in container ranging from 35kWp to 184kWp, which can hybridize with existing Diesel generators</p> <p>Solar & storage : 35kWp to 110kWp modular solar power plant, incorporating energy storage with Li-ion batteries for 30kWh up to 250kWh</p>

The 40-foot version, the **most powerful containerized mini power plant on the market** with 184kWp, meets **the electricity needs of a village of about 1,000 inhabitants**.

CMR Group works with its customers, industrialists, public actors, design offices... in direct marketing or by selling energy.

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