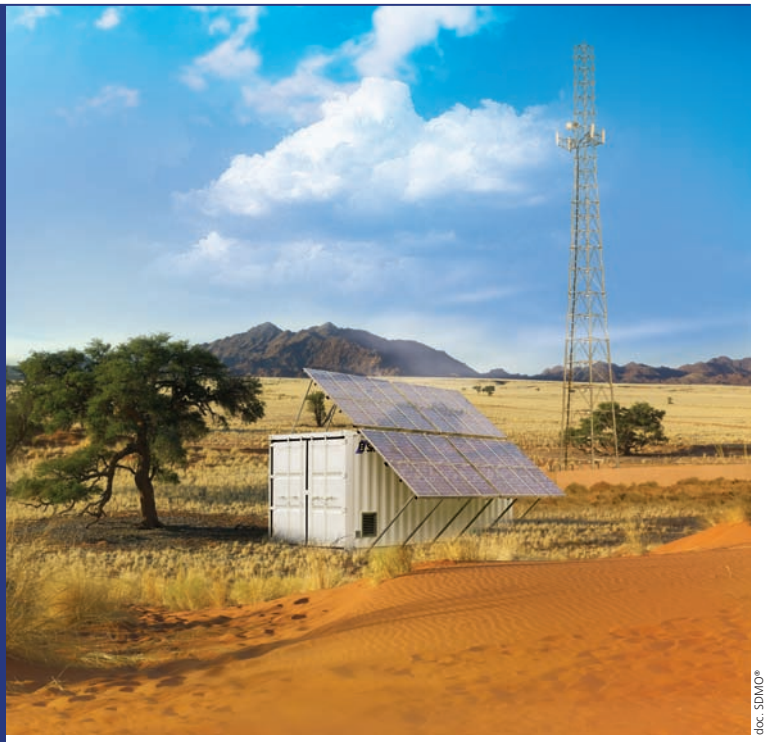
Frontier-free communication with SDMO® solutions applied to Telecom

A world leader in the generating set market, **SDMO®** offers solutions that are particularly well suited to telecommunication installations. An expert in the field of tailor-made power plants, **SDMO®** adopts a global project management approach, from the design stage to the technical monitoring of the installation. Faced with the growing problems of isolated telecom relay stations in remote and inaccessible areas, supplying power requires autonomous, high-performance and economical electrical installations. To overcome these particular constraints, **SDMO®** continually innovates by developing reliable technical solutions that are both standardised and competitive.

During the Mobile World Congress, taking place from February 27 to March 1 this year in Barcelona, **SDMO®** will present innovations specially designed to offer energy supply solutions for all kinds of sites dedicated to telecommunications.



doc. SDMO®

*Expert in the international market of generating sets, **SDMO®** develops innovative, efficient and reliable solutions adapted specifically for the supply of telecom's electric grids in isolated areas.*

For decades, **SDMO®** generating sets, which are both reliable and safe, have been recognised and appreciated for their numerous applications, whether simple or complex, and have been developed to meet a wide range of requirements such as sound levels, dimensions, and environmental and financial constraints.
Using its proven expertise, **SDMO®** has also designed competitive Telecomssolutions providing lower fuel consumption and fewer polluting emissions, enabling significant reductions in operating costs to be made.

An overview of **SDMO®** innovations...

Operating in Long Running mode

This system is all about making a very significant reduction in maintenance costs by extending service intervals to every 2,000 hours, as against 250 hours with a standard solution. The principle of **Long Running** enables a generating set to operate completely independently, thereby reducing by a factor of 8 the need to access the site for maintenance purposes.

Efficient motorisation:
Through their Lister Petter engines, the **SDMO® Long Running** generating sets guarantee controlled, reliable and proven engine performance, giving rise to major fuel savings. This improved consumption may exceed 20% compared to the other main engine manufacturers.

Anti-theft fuel tanks

In order to reduce the space required on-site, **SDMO®** has developed three standard tanks of 600, 1,000 and 2,000 litres, specially designed to be fitted to the underside of **SDMO®** generating sets. These tanks provide the installation with much-valued autonomy.

Various security systems restrict access to the fuel inlet making siphoning impossible, thereby eliminating all risk of fuel theft on-site.

Such equipment developed by **SDMO®** and dedicated to Telecom applications improves competitiveness and return on investment, thereby offering significant reductions in operating costs (OPEX).

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Four proprietary SDMO® solutions for Telecom applications

Generating sets linked to the grid

This system is aimed at installations powered directly by the electrical grid. In the event of a power cut to the main network, the generating set steps in to temporarily provide electrical energy thanks to a supply inverter (INS) – for this emergency application, initial investment (CAPEX) is very low.

Generating sets at isolated sites

In the absence of an electricity grid, two redundant generating sets supply electricity 24 hours a day to the BTS. The alternate operation of the gensets is governed by a timer system on the supply inverter. If necessary, each genset is therefore able to provide backup for the other. Initial investment is quickly recouped thanks to the advantages of the **Long Running** technology (e.g. long maintenance intervals, low fuel consumption).

Hybrid solutions:

Within the context of its commitment to the environment and the current trend towards reducing site operating costs in the Telecom sector, **SDMO®** has developed tailor-made solutions in order to meet all such demands. **SDMO®** hybrid energy generators offer turnkey systems that are ready to be connected to the indoor or outdoor BTS.

Specially designed for new sites in rural areas not connected to the electricity grid, **SDMO®** hybrid energy generators provide reliable power 24/7, operating for between 5 and 8 hours a day. These systems provide savings of up to 80% in fuel consumption, giving a return on investment within 2 years.

The energy solution package – the generating set, the AC/DC rectifiers, the storage batteries, the fuel tank, the energy management unit and the numerous available options – is factory assembled in a 10 or 20 foot container. This production method guarantees the quality, performance and service that **SDMO®** customers have come to expect.

The **SDMO®** hybrid solutions offer advantages such as a safe and fully-controlled "cycling" configuration and proven results and benefits, at the same time as being easy to install and operate.

*The **SDMO®** LR16 generating set is especially adapted for telecom applications. It benefits of the **Long Running** technologies, insuring a functioning without maintenance during 2.000 hours for a continuous nominal power of 15kVA.*

Hybrid systems offer two possible operating modes, using either one or two energy sources.

One energy source: the generating set and storage batteries

This system allows energy produced to be stored and used in an optimal way, thereby considerably reducing the generating set fuel consumption and the total daily operating hours. This solution greatly reduces the genset's operating costs (OPEX), ensuring a rapid return on investment.

Two sources of energy: one generating set, solar panels and storage batteries

Fitted with a modular photovoltaic unit located on the roof of the container, this hybrid energy generator makes it possible to limit the use of the generator. The solar input slows down battery discharge and reduces the number of cycles. At an equivalent charge, this solution provides increased battery durability at the same time as lower consumption and therefore similarly reduced polluting emissions. Operating costs (OPEX) are therefore optimised.

Founded in 1966, **SDMO® Industries** is today the French market leader and the 3rd largest producer worldwide of generating sets. The company designs, manufactures and markets a range of standard generating sets from 1kVA to 200MW that meet all power requirements and can be used for all applications.

Through the expertise held within its Engineering Department and in order to meet the most specific of customer requirements, **SDMO® Industries** also offers tailor-made energy stations. It adopts a global project management approach, from design of the unit right up to contractual technical and operational monitoring. The company is able to sustain its installations around the globe thanks to its dynamic service policy.

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