



Selected references

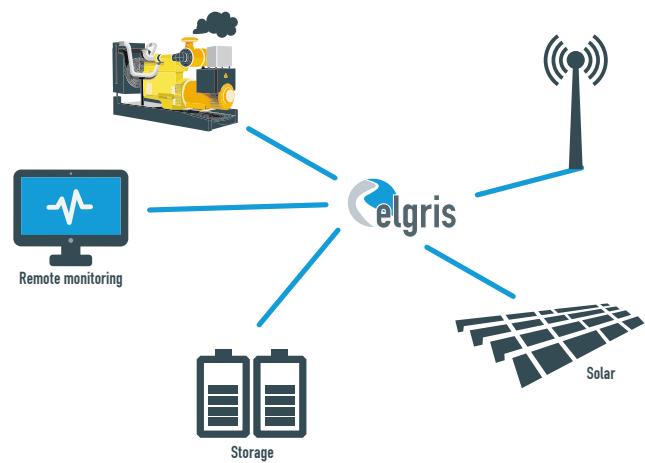
Solar HYBRID for Telecom Diesel – PV HYBRID systems



Solar HYBRID systems for Telecom

Most of the telecom antenna systems which are located in off-grid areas are powered by Diesel generators. Not only the fuel consumption is expensive but also the maintenance and logistic is a challenge.

elgris offers a reliable hybrid power solutions based on efficient solar power and a high quality storage system which need no cooling and thus reduce power consumption.



By using outstanding products and German know-how we offer you the most reliable and independent power supply available on the telecom market today.

The elgris system can be designed to meet initial power generation and can be easily increased if the power consumption rises because of new equipment or technologies.

Grid connected systems can profit from solar power to reduce energy consumption first and feed-in the surplus on energy second to minimize the power consumption costs.

REFERENCE SYSTEM	
Location	Middle East
Site load	2,5 kW
Installed	2012
Savings on fuel costs	87%
Topology	Diesel - PV - Storage
Number of sites	> 125



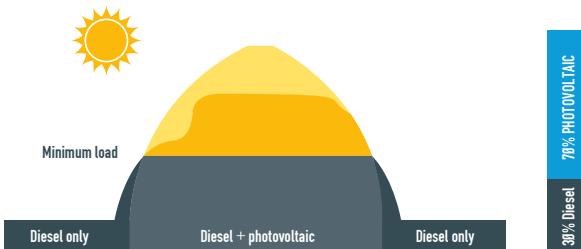
Diesel – PV HYBRID systems

The elgris HYBRID controller measures true three phases the actual power supplied to the load by the generator in real time. When the load of the generator is below a user defined threshold level, the controller will automatically reduce the power output of the photovoltaic to increase the load of the generator.

When the load of the generator is still lower than the minimum threshold level, the photovoltaic is disconnected to prevent the system for instability and protects the generator for reverse current.

At night, or when the actual power of the photovoltaic is very low (due to clouds etc), the load is supplied by the generator.

With the HYBRID ADVANCED controller it is possible to include a storage system like batteries and shut down the generator when there is a surplus of solar energy. This reduces fuel consumption and also maintenance costs of the generator.



REFERENCE SYSTEM	
Location	Caribbean
Site load	150 kVA
Installed	2013
Savings on fuel	150,000 liter per year
Pay off time	Less than 3 years
Topology	Diesel - PV
Controller	elgris ADVANCED

