



small wind · hybrid systems



Wind Solar Photovoltaic  
Hybrid System  
for Telecommunications Antennas

in 3 months · reliable · clean

# The Energy Solution for Telecommunications Antennas supply

The integration of hybrid renewable energy solutions and conventional systems promotes the reliability of the communications network and results in lower economic and environmental costs.

At Kliux Energies we design tailor-made energy solutions for Telecommunications Antennas in order to fully cover their electricity requirements. Our renewable generation solutions are integrated with a battery set, which provides autonomy, and a backup generator to ensure the service is available 365 days a year.

## Conventional Energy Systems are no longer sustainable

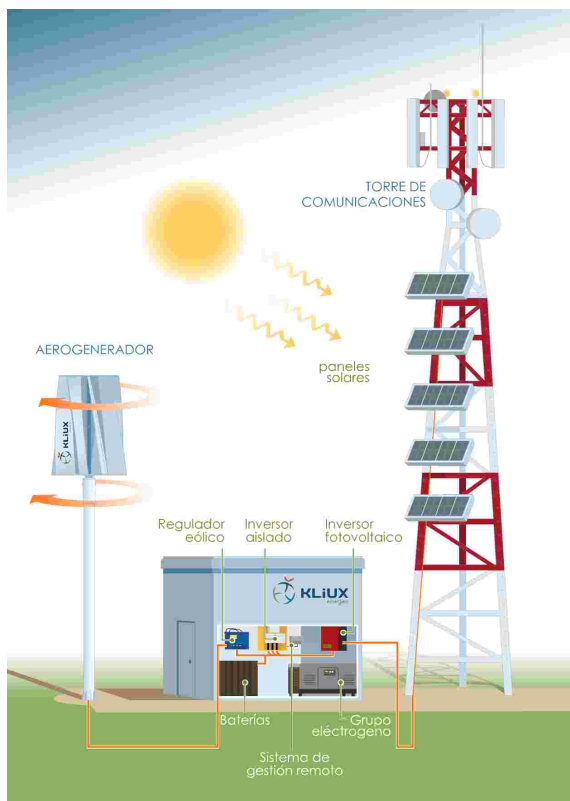
- Locations in isolated rural areas with no access to the electricity grid.
- Increasing fuel prices (between € 0.90 and € 1.10 per kWh).
- Ever growing O&M costs.

## Renewable Hybrid Integration delivers tangible benefits

- Reduced O&M costs.
- Operation guarantee.
- Service independence and cost control.
- Reduction of noise pollution and CO<sub>2</sub> emissions.



# The Hybrid Solution from Kliux Energies: cost effective, noiseless and reliable



## Case Study

A Telecommunications Base Station with a consumption of 24 kWh/day.

Kliux Energies suggests a configuration including the following components:

- 1 Kliux Zebra wind turbine
- 5.3 kWp installed power in photovoltaic modules
- All wind and solar photovoltaic regulators required
- PV inverter
- 24 x 2 V / 1500 Ah batteries
- Stand-alone inverter
- Remote monitoring system and weather station

- 100% coverage of energy needs
- Savings higher than € 10.000 in the first 10 years\*
- 5 year payback period
- 57.500 kg of CO<sub>2</sub> avoided = 192 trees planted

Design, assembly and electrical installation are included.  
Any aid and subsidies would result in reduced investment and payback period.

\* Lifetime of the wind turbine and photovoltaic modules: 25 years