



MINI GRID

STAND-ALONE GRID SYSTEMS FOR ELECTRICITY
GRID IN REMOTE AND INDUSTRIAL AREAS



Mission

Being the best renewable energy provider and installer of products, services and turnkey solutions. To provide systems that can meet or exceed our customers' expectations in performance and in return on investment.

Being a reliable long-term partner for all our customers during the entire lifetime of our energy systems.

Strategic Vision

Our clients can stay focused on their own business activities while we deliver full service energy solutions. We offer to our clients a comprehensive assessment of their energy demand; deliver the most valuable analysis of electrical utility rates, and the best available solutions for each specific location and circumstantial consideration.



Company Profile

PrimeSolar is a leading renewable energy company, developing innovative solutions in the renewable energy sector with particular focus on architectural integration, cost optimization and increase of energy yield but not limited to climates characterized by high temperatures and elevated irradiation level. PrimeSolar is also specialized in production of raw materials.

- Strategic Central Mediterranean location of headquarters and warehouse in Palermo, Italy
- Offices in Italy, Russia, Bulgaria, Tunis, Malta and Egypt
- Global team of experienced professionals
- Large network of contracted installers
- Global sales and distribution network

Switch on to Mini-Grid

A billion and a half people around the World still don't have access to electricity. Could hybrid mini grids be the best way to provide electricity - particularly to rural, often isolated, and remote areas?

Around 80% of people without power livestock in rural areas. In many cases grid extension is often highly costly and unlikely to happen - even in the medium to long-term period. In these scenarios, mini-grids could provide an ideal intermediary solution, especially for small towns or large villages where enough electricity can be generated to power household use, as well as local businesses and industry.

Mini grids provide centralised electricity generation at local level using a dedicated distribution network. When used in conjunction with renewable or hybrid systems, they can increase access to electricity, without undermining environmental factors.



General Concept

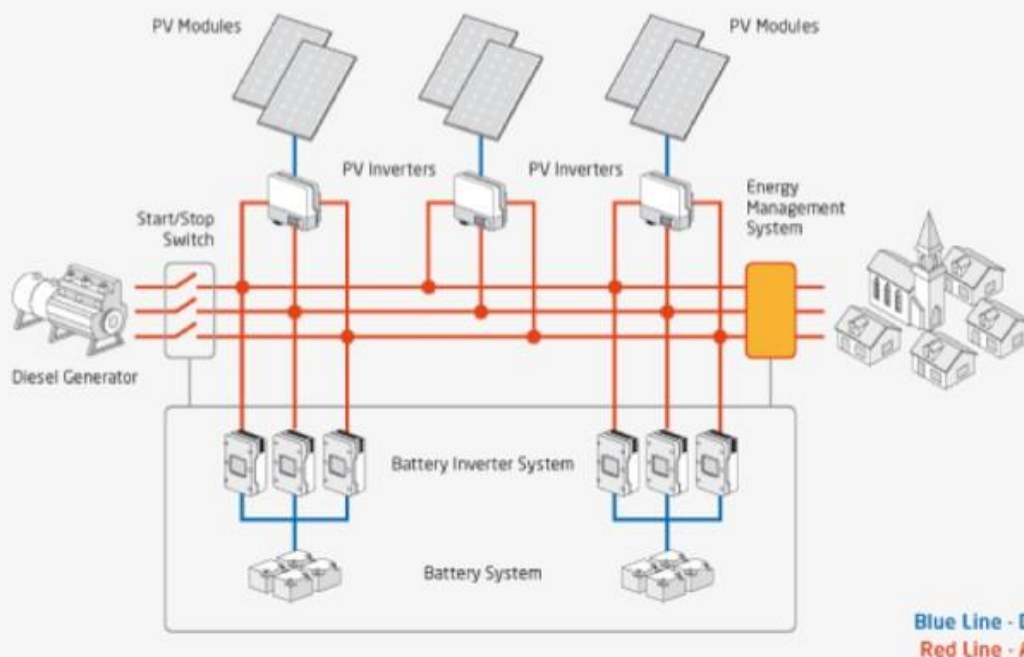
A mini-grid is a set of electricity generators (also renewables) and, possibly, energy storage systems interconnected to a distribution network that supplies the entire electricity demand of a localised group of customers.

This power delivery architecture can be contrasted with single customer systems (e.g. off-grid solar home systems), and with centralised grid systems (Power Utilities), where electrical energy is transmitted over large distances from large central generators.

A key feature of mini-grids is that they can operate autonomously with no connection to a centralised grid. However a mini-grid may be designed to interconnect with the central grid and operate under normal conditions as part of the central grid with disconnection occurring only if required to maintain power quality (e.g. if there is a central grid failure). Alternatively, a mini-grid may be designed to operate autonomously in a remote location.

PrimeSolar Mini-Grid Solution

A focus of our services at PrimeSolar is the development of power supply systems to rural and remote areas, little towns, and industrial areas. Mini Grids would also be a major contribution towards local development. But professionally designed, Mini Grids are not only suitable for regions with no connection or weak connection to the public Power Grids. Even in towns and in well-developed industrialised areas they provide an opportunity to save costs and also protect the Environment. Especially because of the always increasing costs of energy, gas and fuel, solar-based generating systems are actually a very attractive alternative. There has been a remarkable increase of the market in domestic and industrial "off-grid" solar and "hybrid" systems over the last two years. The costs of running diesel-operated applications (residential, agriculture, and industrial) can be reduced considerably through the integration of Renewables especially of photovoltaic.



Our Proposal

Site development

- Site identification and preliminary feasibility study and yield assessment
- Land securing
- Preliminary design and engineering carried out by our specialists
- Permitting and licenses
- Analysis and selection of proofed and cost effective technical solution available on the market
- Survey and study of the installation site carried out by our specialists in order to fit the best and less invasive impact on the Environment



Construction and O&M

Construction and commissioning
Turnkey construction, management and reporting
Engineering, Procurement & Construction of the whole system, including the energy generator (photovoltaic, wind-turbine, etc.), possibly the storage system (batteries) and the backup system, the distribution network and users' interfaces

Startup, testing and commissioning

Analysis of system performance and outputs, and optimization of the system

Operation & Maintenance

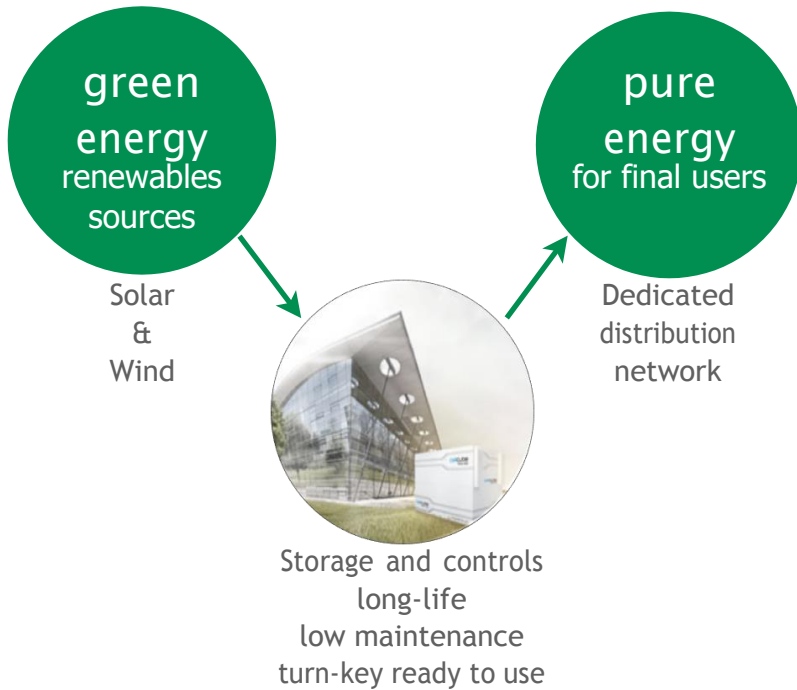
Operation of the systems also owned by third parties

Maintenance of the systems

Performance reporting and analysis

Only the best solutions

PrimeSolar selects only the best and most reliable and proven Brands and products for its Clients. Depending on the size of the system, PrimeSolar will select the best solution at the best price amongst the best suppliers Worldwide.



PrimeSolar's choices

Depending on the size of the system, PrimeSolar's primary options are:

For small-scale systems - backup inverters and solar chargers:

SMA (Sunny Island Series)

Victron Energy

Studer Innotec

Batteries

Victron Energy

Elhim Iskra JSC

Corvus Energy

Narada Batteries

Large scale systems - "all-in-one" Solar Containers

CellCube

Helios Systems / Islandgrids

Solar Modules

BenQ, Jinko, and all the best brands



PrimeSolar

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