

OPTIMIZATION OF MICROGRID MANAGEMENT

OUR EFFICIENT, RELIABLE AND SUSTAINABLE MICROGRID SOLUTION



Political, economic and environmental incentives are leading off-grid sites to move towards a 100% renewable energy generation, which brings new challenges.

The high penetration of intermittent energy resources, such as wind and solar, causes balancing issues that can disturb the grid and lead to system black-outs.

Energy storage systems and advanced softwares are key technologies for preventing such events from occurring. Battery management strategies fed by historical data, seasonal cycles and renewable energy forecasts enable efficient energy production smoothing and energy shifting, thereby decreasing the impact of intermittency and helping to match consumption profiles.

Smart, real-time microgrid control ensures stability of the power system while satisfying the local energy demand, irrespective of the renewable energy's penetration rate.

SMARTER PRODUCTION AT ALL TIMES

Our energy management software autonomously manages the production of gensets, renewable energy sources, energy storage systems or any other flexible assets on the microgrid 24 hours a day, 7 days a week.

- Ensures microgrid reliability and safety
- Brings compatibility with 100% renewable energy
- Maximizes performance and life of the production assets
- Allows fuel savings and reduction in power costs
- Seamlessly follows the energy mix evolution and the addition of any kind of renewable source

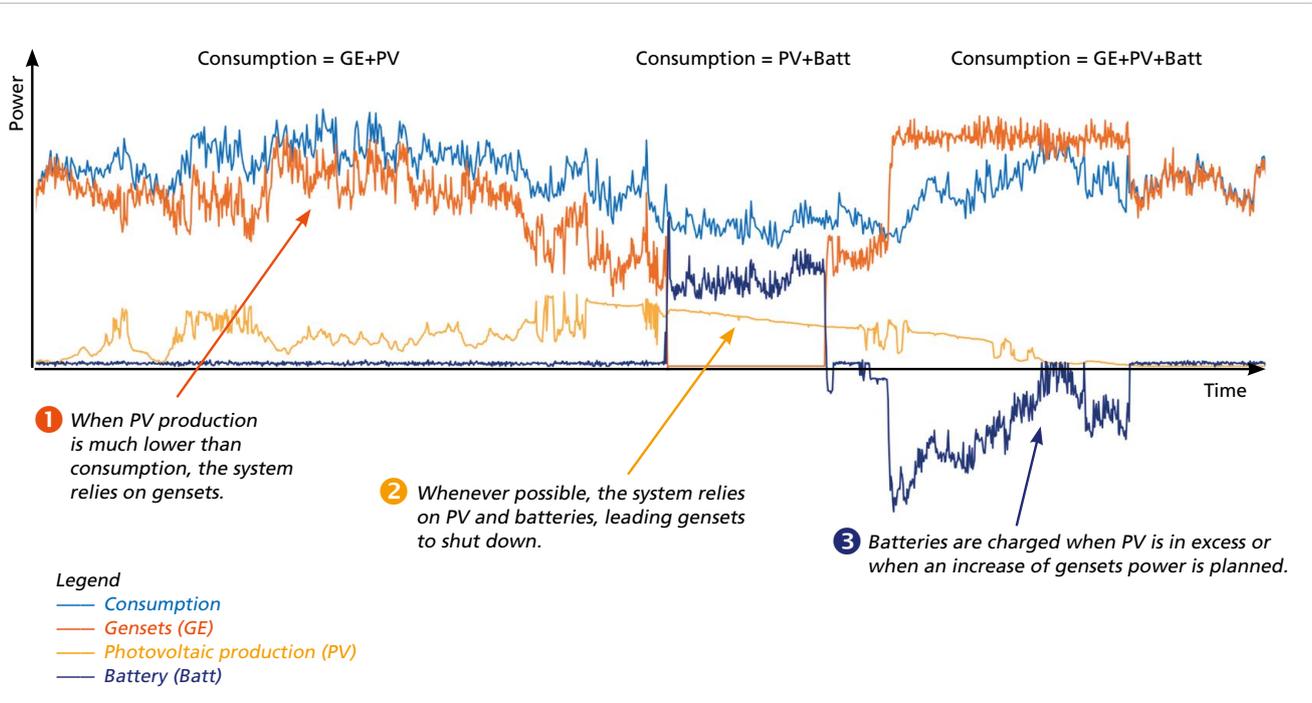
Software features

- Supply/demand balancing
- Management of a 100% renewable generation
- Load forecasting
- Peak shaving
- Load management
- Renewable power production forecasting
- Management of renewable production intermittency
- Gensets start-ups and shutdowns
- Gensets output optimization

HOW IT WORKS

In a microgrid, the sum of all production outputs must match consumption at all times to ensure stability of the power system.

When combining gensets, photovoltaic energy and batteries, there are several possible operating modes.



CREDENTIALS

SEIN ISLAND



Generation: Gensets (880 kW)
Photovoltaic (130 kW)

Storage: Li-ion Battery (200 kW–180 kWh)

Location: France, Brittany

Commissioning: June 2017

SAINT-NICOLAS ISLAND



Generation: Gensets (130 kW)
Solaire PV (36 kWp)
Eolien (20 kW)

Storage: Battery (30 kW–316 kWh)
Compressed air (15 kW–50 kWh)

Location: France, Brittany

Commissioning: June 2019

CONTACT US

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