

*The Future is Clear:  
Smarter Energy  
Management thanks to*

# FUERGY EMS

**FUERGY Energy Management System** is a unique energy control system that helps you optimize electricity consumption and production, improving overall energy efficiency.

- ✔ It is primarily used with battery storage system (BESS).
- ✔ With BESS, FUERGY EMS can secure additional profit by providing commercial flexibility.
- ✔ It can be extended with an ASDR terminal for ancillary services and TSO aggregation.

## ADVANTAGES of FUERGY EMS

- ✔ FULLY AUTOMATED – smooth and continuously monitored operation, without the need for user intervention.
- ✔ FLEXIBLE – can be connected to practically any technology.
- ✔ PV-COMPATIBLE – predicts and manages your solar production.
- ✔ PROFITABLE – enables commercial flexibility and ancillary services.
- ✔ PROGRAMMABLE – adaptable to specific financing models.
- ✔ EASILY ACCESSIBLE – standalone or as part of FUERGY solutions.
- ✔ UPGRADED – always the latest available version.
- ✔ FUTURE-PROOF – connects your devices with energy suppliers (balance group), aggregation blocks, or energy communities.
- ✔ EXPANDABLE - with additional hardware (battery cabinets, terminal, etc.).

## Third-party hardware components and their data fully under the control of FUERGY EMS

Use of high-quality, certified batteries.  
Cooperation directly with the manufacturer.



### HUAWEI LUNA 2000-215 Series

- Long-term warranty up to 10 years
- Hybrid-cooled C&I BESS
- C2C double safety
- Lower LCOS – more of usable energy
- Thermal router – longer lifespan, higher reliability



### PYLONTECH OPTIM US A100-HY

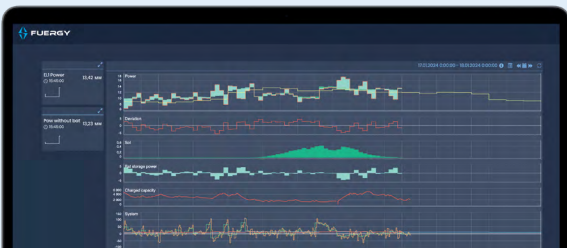
- All-in-one solution
- Integrated 2 x 50 W hybrid inverter
- 1C charging/discharging rating
- Flexible configuration – possibility to interconnect multiple storages
- Wide temperature range: -20~50 °C

## FUERGY DELIVERS

- ✓ Control system (EMS – software, hardware)
- ✓ System operation
- ✓ O&M (service and maintenance)

### Optional:

- Installation, Monitoring
- Option of an off-cloud solution – your own server with no data connection to third parties, without loss of contractual warranties



## EMS IS THE HEART AND BRAIN OF THE SYSTEM

FUERGY EMS includes both software and hardware and utilizes tools to collect data on energy consumption, identify saving opportunities, and automate processes to increase energy efficiency.

## FUERGY EMS SUPPORTS

### MONITORING AND CONTROL OF THE COMPONENTS OF ONE OR MORE BATTERY STORAGE SYSTEMS

Automated control of battery charging and discharging.

### INTEGRATION OF ENERGY EQUIPMENTS

Efficiently manages other technologies and electricity generation sources (e.g., photovoltaic power plants, gas turbines, arc furnaces, small hydro power plant, cogeneration units, heat pumps, air-conditioning units, etc.).

## EMS DISTRIBUTION CABINET (hardware)

It is made of a durable steel enclosure suitable for indoor or outdoor installations, ensuring mechanical resistance and long lifespan even in demanding conditions.

The cabinet is equipped with industrial networking and communication elements supporting standard industrial communication protocols, which enables its integration and connection with external sources and systems (such as photovoltaic power plants, RTU/AXY, external metering systems).

### MAIN COMPONENTS:

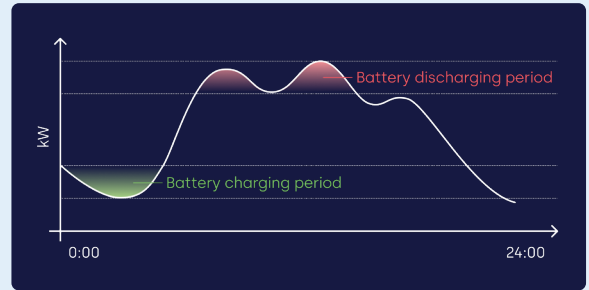
1. Industrial computer as the main control element.
2. Industrial communication and networking elements supporting standard communication protocols.
3. Digital and analog inputs/outputs for connecting sensors, actuators, or external control signals.
4. Backup power supply (UPS), which allows maintaining regular remote-monitoring functions in the event of a failure of the cabinet's mains supply voltage.
5. Temperature and humidity control system – for outdoor installations, the cabinet is equipped with a temperature and humidity control system.

## Peak Shaving



Batteries store energy during periods of lower demand (off-peak) and supply it back to the grid or use it during peak hours. This helps reduce electricity consumption during high-demand periods and also lowers reserved capacity charges.

*No cooperation with your electricity supplier is required.*

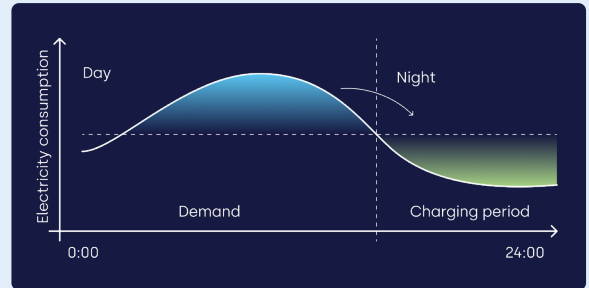


## Load Shifting



Load shifting refers to adjusting energy consumption so that it occurs more during off-peak times rather than peak times. In this way, the battery storage saves resources during periods of high SPOT prices and helps better utilize renewable energy sources (RES).

*No cooperation with your electricity supplier is required.*



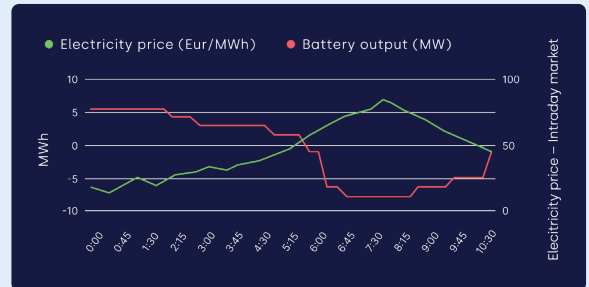
## Energy Trading

Arbitrage



Energy arbitrage uses battery systems to buy electricity from the market when prices are low (e.g., at night) and sell it when prices are high (during peak hours).

*No cooperation with your electricity supplier is required.*



## Commercial Flexibility with Battery Systems



Commercial flexibility refers to the ability of battery systems to quickly respond to electricity market needs. This flexibility allows traders to better react to market price fluctuations and maximize utilization efficiency.

It helps balance differences between energy production and consumption, which is crucial for maintaining grid stability and reliability. By providing this flexibility, you gain additional profit.

*Cooperation with your electricity supplier is required.*

