PVOP

AI-BASED SMART CONTROL SYSTEM FOR PV PLANTS WITH BATTERIES

MAXIMIZE BATTERY ROI.
AUTOMATE ENERGY
DECISIONS. STAY GRID-READY.

SHORT DESCRIPTION

This AI-powered energy management system (EMS) enables PV plants with batteries to operate intelligently, profitably, and in full alignment with dynamic grid and market conditions. Tailored for industrial and utility-scale deployments, the system automates charging, discharging, and energy trading based on real-time forecasts, electricity prices, and grid requirements. It supports grid services like frequency response and demand flexibility, ensuring full monetization of your battery asset. Designed to integrate seamlessly with Huawei BESS and scalable across European markets, the solution delivers fast time-to-value, local adaptability, and executive-level performance insights.

EXPECTED IMPROVEMENTS

- Up to **2 full battery cycles per day** strategically scheduled for optimal ROI
- Improved **LCOS (Levelized Cost of Storage)** via smart degradation-aware battery cycling
- Up to **20–30% reduction in peak demand charges** and curtailment losses
- Enhanced **participation in demand response programs (e.g., SRAD)** for additional revenue
- Reduced manual intervention through AI-powered decision-making and automation

MAIN BENEFITS

For CEOs & General Managers:

- **Unlock new revenue streams from market participation and ancillary services**
- **De-risk renewable asset portfolios with real-time control and compliance readiness**
- **Increase long-term profitability of BESS investments**

For Development Directors & Heads of Ops:

- **Streamline operations with a unified control platform for PV + storage**
- **Improve energy reliability and performance forecasting across multi-site portfolios**
- **Scale efficiently with modular design and AC-coupled architecture**

For Procurement Managers:

- **Proven, plug-and-play EMS for Huawei BESS with localized deployment support**
- **Favorable cost-performance ratio with pre-configured use cases and fast setup**
- **Simplified onboarding with remote updates and a user-friendly interface**

USE CASES

A **manufacturing facility** in Spain deploys the EMS to reduce grid reliance, earning from SRAD while avoiding curtailment of excess solar during weekends. Battery scheduling now aligns with day-ahead market prices, improving monthly savings by 15%.

A **utility-scale solar farm** in Italy integrates the system to manage a 4.5 MWh containerized battery. The AI forecasts cloud cover and automatically pre-charges the battery before output drops, stabilizing delivery under a strict PPA.

A **BESS developer in Benelux** bundles the solution with Huawei batteries, using remote updates and local market modules to deploy tailored systems across four clients in under eight weeks.

Book your personalized discovery call here

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