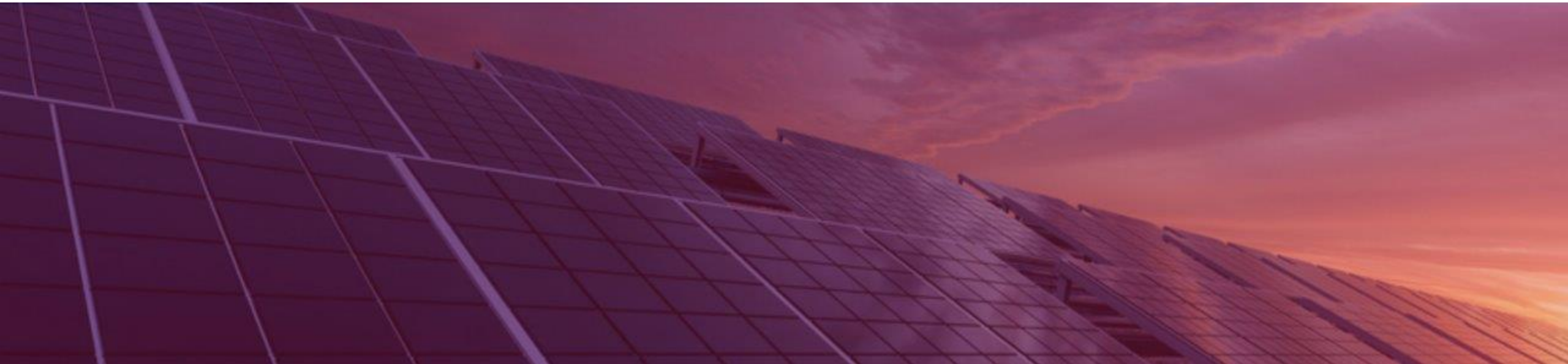


# Maximizing Value and Flexibility in Battery Asset Management: Verdian's Pan-European Approach



Today's actions drive tomorrow's **clean** energy



### **Renewable Energy Focus**

Verdian is a next-generation Independent Power Producer (IPP) with flexibility at the center of its thesis. Verdian is part of Nuveen Infrastructure's clean energy portfolio, focused on accelerating the energy transition through innovative solutions. Battery Energy Storage Systems (BESS) represent a large share of Verdian's portfolio. The team is composed of highly experienced professionals with a proven track record in renewables growth

### **Strategic Market Presence**

The company's main presence is in Italy and Spain, with expansion into other European markets

### **Vision**

Today's actions drive tomorrow's clean energy — building resilient, sustainable infrastructure for the future.

### **Commitment to Sustainability**

Verdian's mission emphasizes sustainability, innovation, and ESG practices including environmental stewardship and community engagement.



## Total pipeline

~3 GW across Italy and Spain, diversified among BESS, solar PV, and onshore wind. BESS makes up a significant portion of the pipeline, with projects at various stages of development. ~1 GW expected to reach COD before 2028, including PV under construction in Spain and BESS co-location ongoing to enhance returns.

## Italy

Substantial BESS portfolio in regions such as Campania and Apulia, with operations expected from 2027 and a revenue model under definition between contracting and merchant.

## Strategy

Flexible contracting (including tolling, floors, Day Ahead swaps, and other structures), early mover in large-scale BESS for grid stability and market flexibility.

## Diversification

Portfolio spread across multiple projects and regions, with additional pipeline under evaluation through M&A and development in new European markets.

## Italy's Market Leadership

Italy is the most attractive market in Europe for battery storage, driven by strong solar PV growth. Supports decarbonization by reducing reliance on gas peakers. Stability-BESS mitigates intermittency from solar and wind, enabling higher renewable penetration.

## MACSE Incentive Scheme & Capacity Market

The MACSE scheme offers 15-year tolling contracts providing revenue stability and encouraging storage investments. The Capacity Market complements MACSE by awarding multi-year contracts for capacity availability, further strengthening revenue certainty and project bankability. The first MACSE auction awarded 10 GWh at €13,000–€15,000 per MWh yearly, indicating strong market competition.

## Other Revenue Streams for BESS

Ancillary Services: Participation in balancing markets (FCR, aFRR, mFRR), with new opportunities under TIDE.

Energy Arbitrage: Capture price volatility; upside potential but exposed to cannibalization risk.

Co-Location with Renewables: Time-shifting to avoid curtailment and maximize green energy output

## Biggest Regulatory Evolution

TIDE Roadmap: Expands ancillary service markets and introduces granular dispatching, boosting storage integration. Increased Competition: More players in ancillary markets, compressing margins.

Nodal Dispatch: Shift from zonal to nodal dispatch impacts asset siting and optimization strategies.

MACSE Development: Further auctions and regulatory refinements expected by end of 2026.





## Contracting Strategies

Adopt flexible contracting structures to balance risk and optimize returns, without signaling preference for a single model.

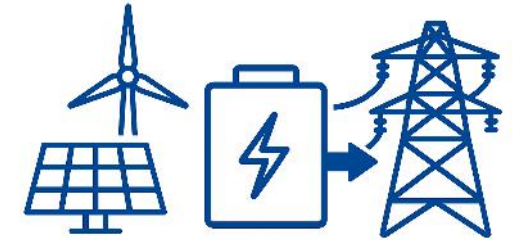
Includes: Tolling agreements, Floor price mechanisms, Day-Ahead swaps, Hybrid structures combining stability and market upside

## Hybrid Financial Strategies

Combination of tolling agreements and merchant exposure balances risk and revenue potential.

## Co-location Benefits

Integration of PV assets with BESS to maximize returns, reduce curtailment, and enhance grid flexibility.



## Predictive Maintenance

Use of AI-driven analytics for battery health monitoring and proactive fault prevention.

## Performance Optimization

Advanced Energy Management Systems (EMS) and dispatch optimizers for efficient bidding in day-ahead and balancing markets.

## Reliability & Safety

Thermal control systems and cycle management to extend asset lifetime, ensuring compliance with IEC standards and Italian regulations.

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THANK YOU