



Europe's BESS market faces a perfect storm amid rapid storage growth

Kieran Hartley, Senior Sales Manager, Utility BESS, Western Europe at Jinko ESS, discusses how Europe's battery energy storage market is entering a critical phase. Rapid utility-scale growth, tighter regulatory scrutiny and increasing geopolitical and supply chain complexity are reshaping project priorities, with long-term bankability, resilience and lifecycle performance becoming central to project success.

PES: Welcome to PES Solar, Kieran. Jinko ESS is operating in a storage market evolving at an extraordinary speed across Europe. From your perspective, which shifts are defining the sector most strongly right now?

Kieran Hartley: Thank you, it's great to be here with PES Solar. The European storage market is moving extremely quickly, driven by grid stability, renewable integration and energy security. At Jinko ESS, the biggest shifts we see are the rapid growth of utility-scale BESS, increasing focus on system stability and long-duration storage, alongside greater emphasis on safety, bankability and long-term performance across European markets.

PES: Pricing pressure across the BESS sector continues to intensify, with competition becoming increasingly aggressive. How does the industry avoid a damaging race to the bottom?

KH: Price will always be important, but the industry cannot compete on cost alone. The market is maturing and developers, utilities and investors are placing far greater focus on safety, quality, lifecycle performance, bankability and long-term support.

We believe the sector avoids a race to the bottom by focusing on delivering reliable, bankable solutions that provide long-term viability rather than simply looking at the system with the lowest upfront cost. We pride ourselves on our reputation and honesty, and most importantly, our trustworthiness to deliver a quality product on time and one that lasts the full lifecycle of the project, not one designed simply to get you past contract signing, as we say in this industry. Paper never refuses ink.

PES: There is growing debate around whether some projects are being won on commercially unsustainable terms. Is the market becoming too focused on short-term pricing?

KH: Yes, in some parts of the market, there is definitely a growing focus on unrealistic, unsustainable short-term pricing and that can create challenges around long-term project viability.

Energy storage is a vital part of critical infrastructure, so decisions cannot be based purely on the lowest price alone. Thankfully, the BESS market is now placing greater emphasis on safety, quality, bankability, lifecycle performance and the ability to deliver long-term support.

At Jinko ESS, we believe trust, reliability and proven delivery capability are just as important as pricing when it comes to building sustainable projects across Europe.

PES: Conversations around guarantees, degradation, lifecycle expectations and long-term support are becoming increasingly important. Where does the market need greater realism?

KH: The market needs to get real about long-term performance expectations and what can genuinely be delivered over the full lifecycle of a project.

Availability guarantees, degradation curves, warranties and long-term support must be based on real operating conditions, not just

ideal scenarios on paper. The BESS sector is now under far greater scrutiny, not only from IPPs, developers and financial institutions, but also from the public, national and international bodies and governments.

As an industry, we have spent years pushing to be recognised as a critical part of the energy transition, and now that we are at the table, collectively we have to deliver on that responsibility.

We believe transparency and bankability are critical. Customers are looking beyond headline numbers and focusing more on proven technology, reliable delivery and partners that will still be there to support projects 15 to 20 years down the line.



Kieran Hartley

PES: European scrutiny surrounding at-risk Chinese technology providers is creating new conversations around procurement and financing. How is that changing the market dynamic?

KH: Most definitely, this is changing the conversation not just across Europe but in the US and internationally, especially around cybersecurity, NIS2 compliance, FEOC, IRA requirements and US domestic content rules.

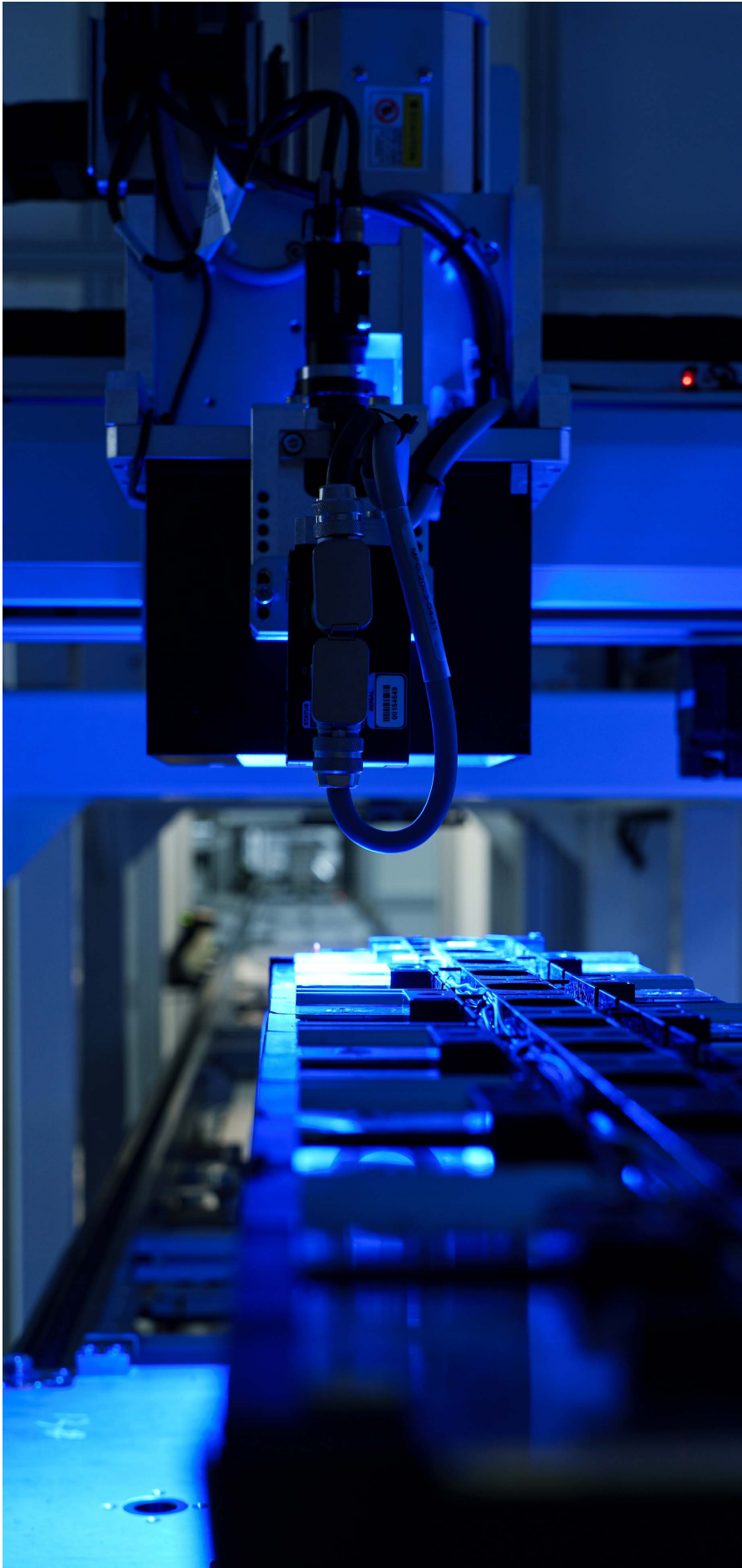
As BESS becomes critical infrastructure, the market is placing far greater scrutiny on who is supplying the technology, where the raw materials originate from, sustainability, traceability, how operating systems are managed and where the data is stored. Is it stored on European servers and how secure are they across the full project lifecycle and value chain?

The conversation is no longer just about price and performance. Now it is about trust, compliance, transparency, bankability, traceability and working with partners that can meet both European and US regulatory and cybersecurity expectations long term.

PES: Safety, insurance and operational risk are becoming more prominent as systems grow larger. Is the industry moving quickly enough to stay ahead of those challenges?

KH: Absolutely! Developers and IPPs are looking far more closely at supply chain resilience, ESG, local support capability, manufacturing scale and long-term bankability. The conversation has shifted from simply sourcing the lowest cost product to securing reliable partnerships that can deliver across the full lifecycle of a project. There is also a much greater focus now on geopolitical risk, compliance, cybersecurity and understanding exactly where components are sourced from across the value chain.





PES: Geopolitical instability and logistics uncertainty continue to affect global supply chains. How much volatility is the sector still navigating behind the scenes?

KH: This is probably the most topical question in the BESS industry right now. There is still significant volatility behind the scenes, particularly around logistics, raw material pricing, shipping routes, geopolitical uncertainty, tariffs, cybersecurity concerns and infrastructure deficits.

While the market has stabilised somewhat compared to previous years, such as 2022 and 2023, the sector is still navigating major global supply chain pressures and geopolitical challenges. That is why manufacturing scale, supply chain visibility, strong partnerships, and, most importantly, proper planning have become absolutely critical for both developers and technology providers.

With commercial operation date (COD) and notice to proceed (NTP) timelines becoming far more stringent and energisation dates for long-duration energy storage (LDES) and stability contract projects now stretching from 2029 out towards 2032, it has never been more important to build realistic delivery schedules and contingency planning into projects from day one.

As duration requirements move towards systems of more than 14 hours, alongside growing demand for higher energy density, larger power conversion system (PCS) outputs, faster moving legislation, and resolution of grid infrastructure constraints, resilience and flexibility across the full supply chain have become essential.

PES: Supply chain resilience has become a much bigger priority across Europe. Are developers now thinking differently about technology partnerships and sourcing strategies?

KH: Definitely! Developers and IPPs are now looking far more closely at supply chain resilience, manufacturing capability, local support and long-term bankability. The conversation has shifted from simply sourcing the lowest cost product to securing reliable partnerships that can deliver across the full lifecycle of a project.

That is one of the reasons Jinko ESS made the strategic decision to build our state-of-the-art cell manufacturing facility in Shanghai in collaboration with EVE. It helps safeguard supply chain security, reduce exposure to raw material and commodity price volatility and ultimately gives customers greater confidence in our long-term delivery capability.

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