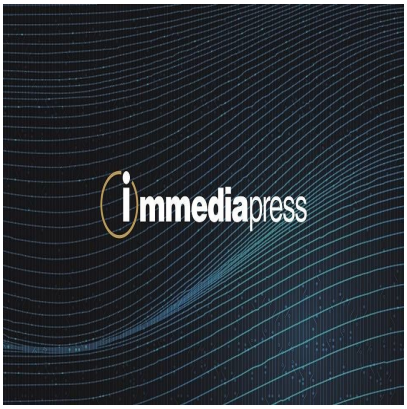

Sungrow Presents DC-Coupled Solution to Redefine PV-ESS System Value in Europe

Descrizione

COMUNICATO STAMPA â?? CONTENUTO PROMOZIONALE

MADRID, Feb. 3, 2026 /PRNewswire/ â?? As the energy transition accelerates, PV-plus-storage is increasingly adopted in European large-scale solar plants. According to BloombergNEF, cumulative PV-plus-storage capacity in Europe is expected to exceed 15 GWh by 2029. However, high costs, efficiency limitations, and solar curtailment continue to constrain the economic potential of these systems.

At the Sungrow PV & ESS Summit, Sungrow presented the Single-Platform Design for DC-Coupled PV-ESS Solution, featuring the 1+X modular inverter with dedicated storage interface, PowerTitan 3.0 with built-in DC/DC module, and the PV-ESS Synergy Management System. Built on a Single-Platform PV-ESS design, the solution enhances operational efficiency, supports flexible energy dispatch, and strengthens grid compatibility for large-scale European solar projects.

Seamless PV-Storage Coordination: Driving Enhanced System Performance

Built on the Single-Platform PV-ESS design, the system supports up to 8 hours of discharge, a high DC/AC ratio of up to 2.0, and ESS power utilization of up to 100%. By optimizing energy arbitrage across peak and off-peak price periods, the system enables reliable 24/7 green power supply while delivering holistic optimization across system cost, energy conversion and power regulation â??laying the foundation for enhanced project value.

Optimized Costs and Efficiency Across the Full Project Lifecycle

By eliminating the need for a separate Power Conversion System (PCS) and MV station (MVS) and significantly reducing AC cabling requirements, the DC-coupled architecture delivers substantial cost savings. For a typical 100 MW PV + 200 MWh storage project, this can save up to â?¬1 million on CAPAX. Meanwhile, the DC-coupled solution improves overall energy conversion efficiency by 3â??5%, enhancing long-term project economics.

Beyond hardware optimization, the Single-Platform PV-ESS design enhances lifecycle performance from delivery to operation. During the delivery phase, the integrated architecture streamlines installation and commissioning, enabling faster grid connection. During operation, adaptive control software maintains optimal performance under varying conditions, while Sungrowâ??s localized European service network and one-stop after-sales support ensure efficient and reliable system management. Together, these capabilities enable high operational efficiency throughout the lifecycle, ultimately maximizing asset returns for large-scale PV-plus-storage projects in Europe.

Intelligent Dispatch for Power Delivery

The system automatically stores excess PV generation during peak output or grid curtailment periods. It rapidly charges during high-generation and low-price windows, and discharges smoothly during peak demand. This intelligent regulation reduces curtailment, stabilizes PV output, and delivers more grid-friendly powerâ??ensuring reliable round-the-clock energy supply.

Grid-Forming Technology: Ensuring Stable Operation Across All Grid Conditions

Designed for Europeâ??s increasingly complex and weak-grid environments, the solution integrates advanced grid-forming capabilities to ensure system and equipment stability under all grid conditions. It delivers stronger and faster inertia support, reducing frequency response time from hundreds of milliseconds to under 5ms. This enables rapid grid frequency stabilization and improving overall system reliability.

With 1.8 times transient overvoltage tolerance and real-time assessment of grid strength indicators such as Short-Circuit Ratio (SCR), the system can seamlessly switch between grid-following and grid-forming modes, enabling reliable operation across dynamic weak-to-strong grid transitions.

To date, Sungrowâ??s Single-Platform DC-coupled PV-ESS system has been deployed in more than 90 projects worldwide, such as the 100 MW PV + 220 MWh ESS system in Australia and the 181 MW PV + 638 MWh ESS project in Chileâ??demonstrating its reliability across diverse grid and market environments. With the launch of PowerTitan 3.0 and its Single-Platform DC-coupled solution in Europe, Sungrow will continue to advance technological innovation and solution evolution, accelerating Europeâ??s energy transition by unlocking greater value through more efficient and reliable PV-plus-storage systems.

About Sungrow

Sungrow, a global leader in renewable energy technology, has pioneered sustainable power solutions for over 29 years. As of June 2025, Sungrow has installed 870 GW of power electronic converters worldwide. The Company is recognized as the worldâ??s most bankable PV inverter and energy storage company (BloombergNEF). Its innovations power clean energy projects across the globe, supported by a network of 520 service outlets guaranteeing excellent customer experience. At Sungrow, weâ??re committed to bridging to a sustainable future through cutting-edge technology and unparalleled service. For more information, please visit: www.sungrowpower.com/en.

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