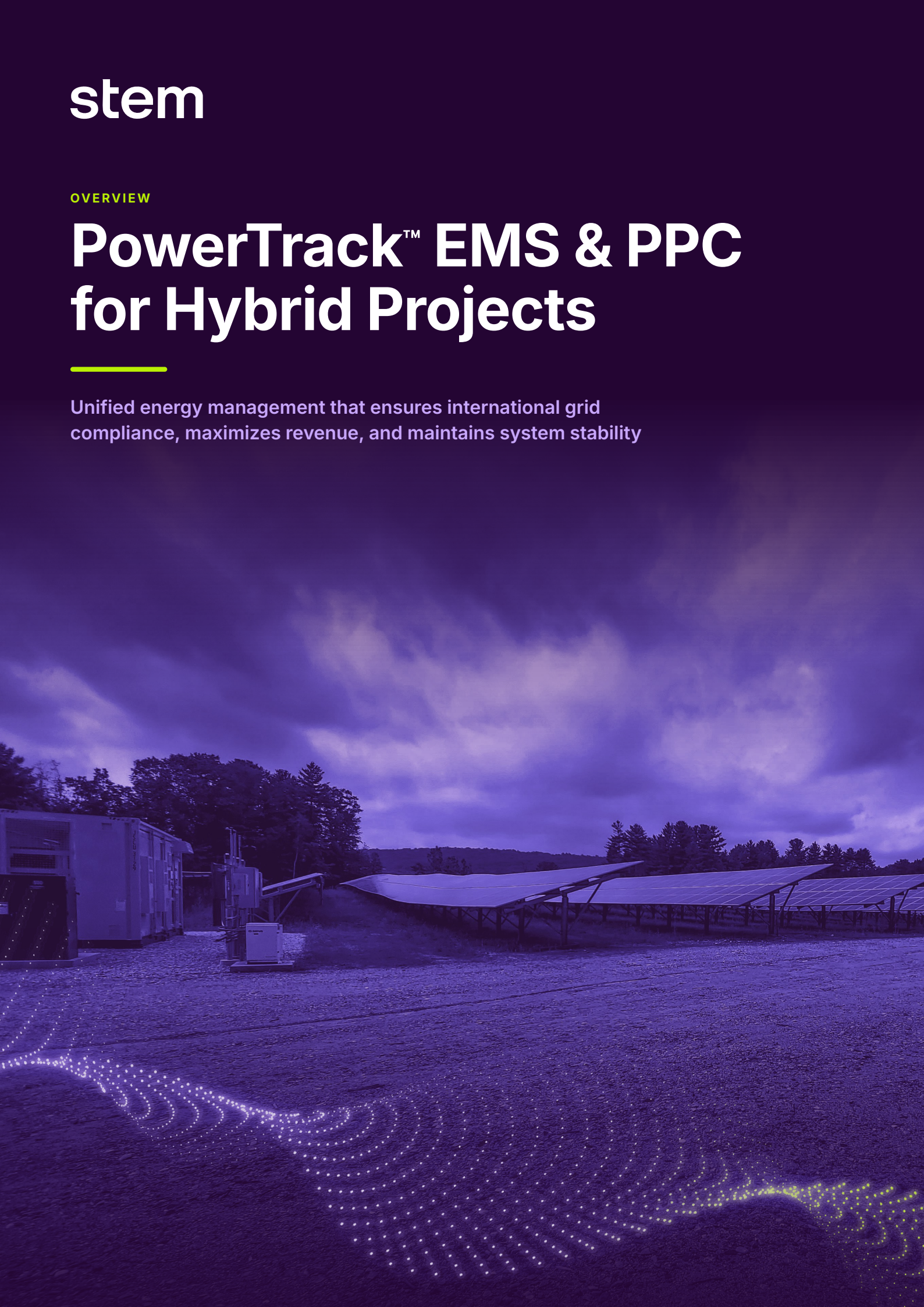
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OVERVIEW

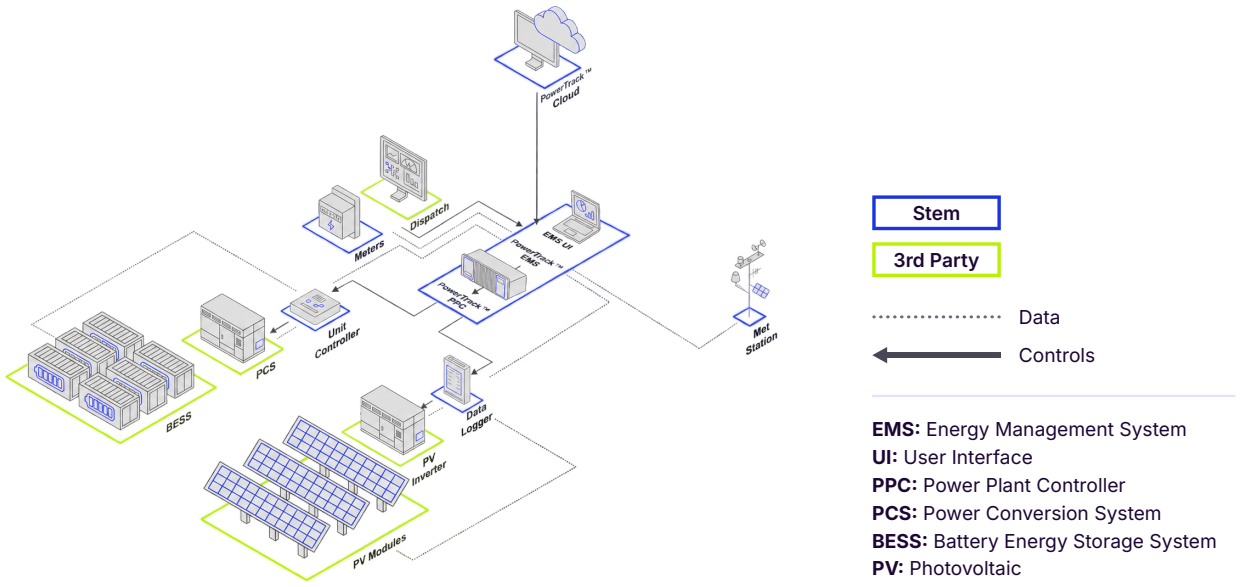
PowerTrack™ EMS & PPC for Hybrid Projects

Unified energy management that ensures international grid compliance, maximizes revenue, and maintains system stability



Deliver Proven Hybrid Solar + Storage Performance

PowerTrack™ EMS delivers comprehensive control for energy storage and hybrid solar+storage configurations, seamlessly coordinating operations between assets to accelerate deployment, enable market participation, and optimize dispatch.



The solution integrates EMS and PPC to control solar and energy storage as a unified asset instead of forcing independent system communication through middleware. This approach eliminates costly coordination gaps and facilitates efficient long-term operations.

Unified Control Architecture Unlocks Competitive Advantages

Traditional architectures use separate control systems, creating coordination complexity and latency issues that limit performance and revenue potential. PowerTrack EMS delivers a unified approach, effectively future-proofing clean energy investments.

Optimized Grid Service Delivery

Integrated EMS and PPC eliminates latency between control layers, enabling simultaneous coordination and leveraging multiple control modes

Streamlined Revenue Stacking

Unified control logic enables participation in wholesale markets and ancillary services (FCR, aFRR/mFRR, frequency response, voltage support) across regions

Flexible Hardware Integration

Hardware-agnostic architecture integrates with preferred international inverter and battery vendors, streamlining deployment

Built-In Resilience

Hot-standby EMS/PPC redundancy with automatic failover protects revenue by eliminating single points of failure

Adaptable Hybridization Pathways De-Risk Deployment

PowerTrack EMS supports multiple configuration routes, offering flexible hybridization options designed to preserve project value.



Design-In for Greenfield Projects: Coordinated Performance, No Integration Gaps

For new hybrid projects, the solution's integrated architecture delivers continuous coordination from day one



Existing PowerTrack and Skytron PV Solution: Reduced Deployment Risk

Sites already using PowerTrack and Skytron PV hardware and controls benefit from streamlined battery integration; familiarity with existing infrastructure de-risks and speeds up deployment and minimizes disruption



Retrofit with Third-Party PPC: Battery Integration Without System Overhaul

PowerTrack EMS seamlessly interfaces with existing controls to add BESS and hybrid management capabilities



Full System Replacement: Eliminate Complexity, Improve Performance

Replacing legacy third-party control architecture with PowerTrack EMS & PPC eliminates coordination complexity between separate control systems

Advanced Hybrid Functionalities Maximize Energy Yield

Hybrid operations can reach full potential through the solution's sophisticated control capabilities, which include:

Ramp Rate Control	Curtailment Recapture	Power Firming
Employs BESS to smooth PV output fluctuations caused by changing cloud cover or irradiance	Captures excess solar energy in the battery when generation exceeds grid export limits	Maintains guaranteed power delivery to the grid, using battery storage to compensate for solar intermittency

Immediate Grid Code Compliance Ensures Full Market Participation

PowerTrack EMS integrates with all optimizers from day one, immediately unlocking access to wholesale energy markets, ancillary services (FCR, aFRR/mFRR), and capacity markets. VDE-certified PPC compliant with NC RfG (EU 2016/631) — including Poland's national grid code — and proven integration architecture ensure compliance with international grid code requirements and enable concurrent, multi-mode operation without performance degradation.

Cybersecurity is built into every deployment: the platform meets NIS2 requirements for critical infrastructure and is SOC2 Type II audited against NIST 800-53 controls.

Industry Leader

200,000+

Sites

55

Countries

37.5+

GW of monitored power

17+

Years

About Stem, Inc.

Stem (NYSE: STEM) is the operating system for clean energy: where assets connect, sites are optimized, and value is captured.

Stem is a global leader in energy intelligence and the operating system for clean energy: where assets connect, sites are optimized, and value is captured. Powered by decades of operational experience and purpose-built AI, our PowerTrack™ platform is the layer that sits between raw data and confident action, making every decision-maker smarter, every asset more productive, and every transition more certain.

From asset monitoring to portfolio optimization and control, PowerTrack delivers everything energy professionals need in one place. With projects managed across 55 countries, we have spent nearly 20 years empowering asset owners, operators, and developers to take command of what comes next, with the certainty to act, the trust to commit, and the intelligence to lead.

To learn more about PowerTrack EMS & PPC for hybrid projects, visit stem.com/contact-us or contact sales@stem.com.

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The Operating System for Clean Energy.

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