

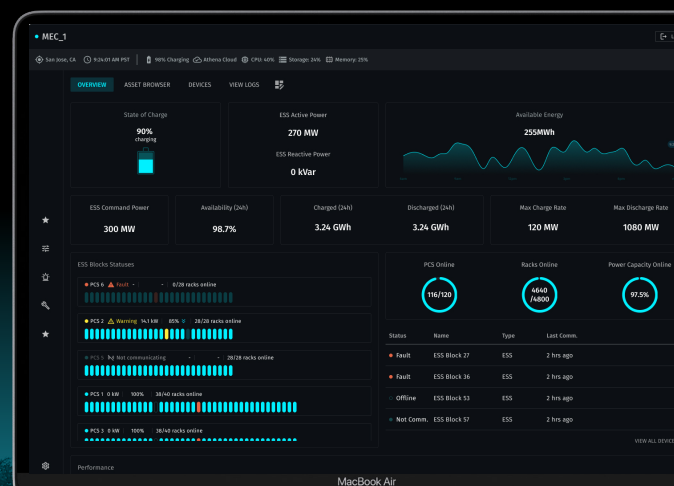
stem

PowerTrack™ EMS Solution

The Edge-to-Cloud Platform for Utility-Scale
Energy Storage & Hybrid Assets

Streamlining monitoring, management, and control across
your entire energy portfolio

- Standardized device interfaces with industry-leading protocols
- Advanced utility-scale power plant controls
- Integrated on-premise and cloud-based historian
- Intuitive native edge and cloud user interfaces
- Flexible SCADA integration for utilities and market operators



Seamless Edge-to-Cloud Control for Energy Storage & Hybrid Assets

Stem's PowerTrack™ Energy Management System (EMS) Solution is an advanced platform that streamlines how organizations monitor, control, and optimize utility-scale storage and hybrid energy assets.

By seamlessly integrating edge hardware with cloud software, the system bridges on-site controllers, SCADA systems, and sophisticated cloud infrastructure. This enables real-time configuration, precise command execution, and data-driven optimization across individual sites and entire energy portfolios.

PowerTrack EMS meets the diverse needs of project developers, utilities, and IPPs through:



Reduced Time to Commissioning

Accelerate site deployment through advanced edge UI reducing engineering hours by 32% on average, enabling real-time diagnostic mapping, automated fault detection, and rapid system configuration.



Simplified Portfolio Management

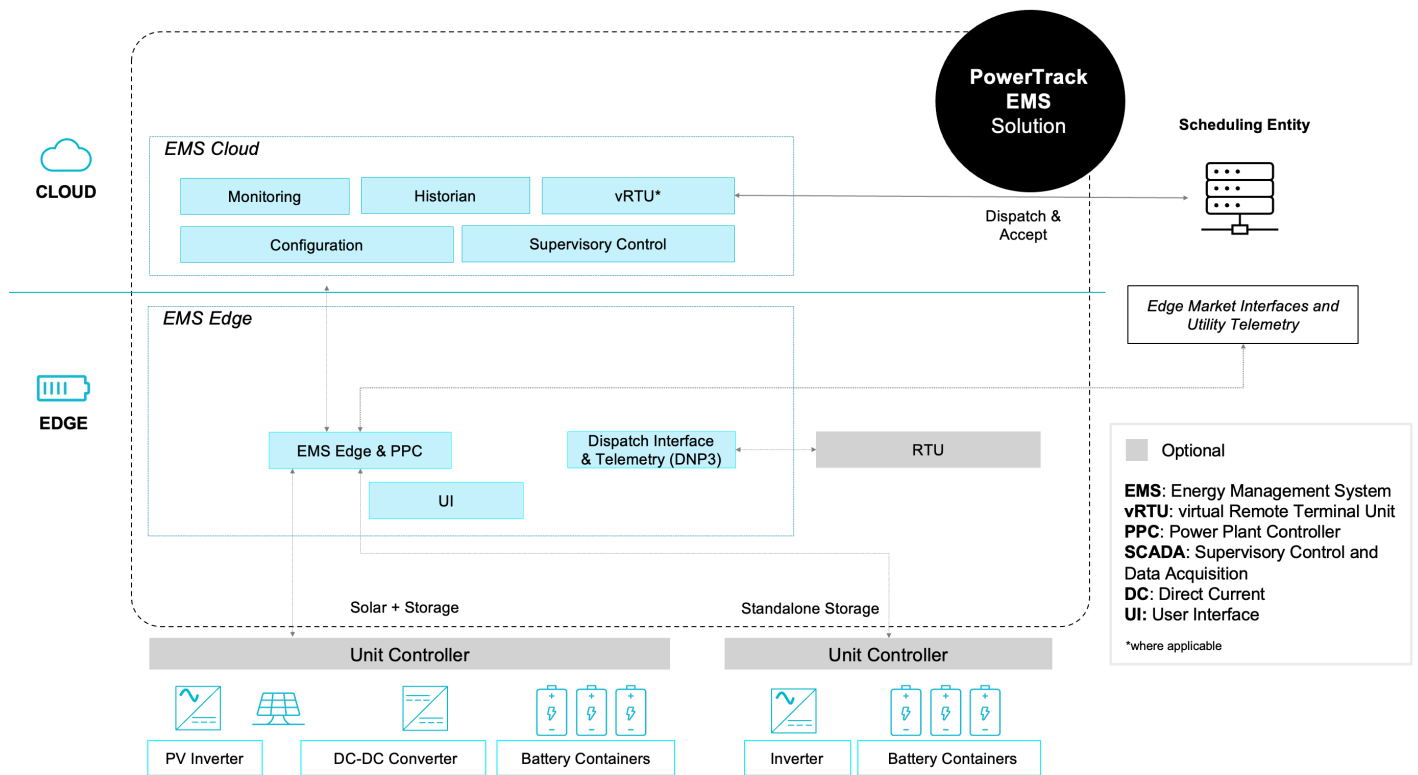
Deliver multi-protocol, grid-agnostic energy management with dynamic control capabilities supporting diverse technological ecosystems and industry-leading OEMs, eliminating the need for multiple management systems regardless of asset type or manufacturer.



Increased Operational Efficiency

Combine high-performance on-site controllers and cloud optimization to streamline operational complexity and maximize asset performance across energy portfolios, all while delivering high reliability with a 99% average uptime.





Core Features & Advantages

- Real-time data monitoring with 99% average uptime
- Intuitive edge and cloud user interfaces
- Standardized data model (IEEE 1815.2) with multi-protocol support
- DNP3, Modbus, OPC-UA, IEC 61850, and IEC 60870 compatible
- Configurable SCADA interfaces with Human-Machine Interface (HMI)
- Integrated Stem cloud solutions for portfolio-wide management
- Centralized configuration for controls and data collection
- Vertical scalability from individual unit to entire portfolio
- Lifetime cloud-based data storage
- Assembled and tested in the United States

Technical Highlights

System Compatibility

- Integrated and modular Battery Energy Storage Systems (BESS)
- Comprehensive monitoring for hybrid assets (BESS & PV)
- Equipment monitoring: capacitor banks, switchgear, inverters, and trackers

Power Plant Controller (PPC) Functions

Frequency Management	Voltage Management	Power Management	System Control
Fast Frequency Response	AVR Control	Active Power Limiting	Dynamic SOC Control
Frequency Watt Control	Volt VAR Control	Fixed Power Factor	Automatic Generation Control
Power Oscillation Damping	VAR Control	Dispatch Regulation Reserve	

Why Stem

Stem remains the leader in the management of solar, hybrid, and storage assets and portfolios. Together with our customers, we are leading the clean energy transition towards a more resilient energy future.

Industry Expertise

Managing 28+ GW of solar and 6+ GWh of storage assets with deep understanding of complex hybrid energy systems across diverse markets.

Innovative Technology

State-of-the-art control systems and analytics providing real-time visibility and command precision with industry-leading uptime.

Dedicated Support

Expert team delivering specialized assistance in utility-scale operations, grid integration, and regulatory compliance.



About Stem, Inc.

Stem (NYSE: STEM) is a global leader in AI-enabled software and services that enable its customers to plan, deploy, and operate clean energy assets.

Stem offers a complete set of solutions that transform how solar and energy storage projects are developed, deployed, and operated, including an integrated suite of software and edge products, and full lifecycle services from a team of leading experts.

More than 16,000 global customers rely on Stem to maximize the value of their clean energy projects and portfolios. [Learn more at stem.com.](https://stem.com)

To book a meeting contact

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