



Always-On Performance with Powerful Microgrid Automation

Intelligently orchestrate complex energy systems for resilient, scalable, optimized operations

Energy Challenges for Today's Most Demanding Operations

Energy-intensive organizations face growing challenges:

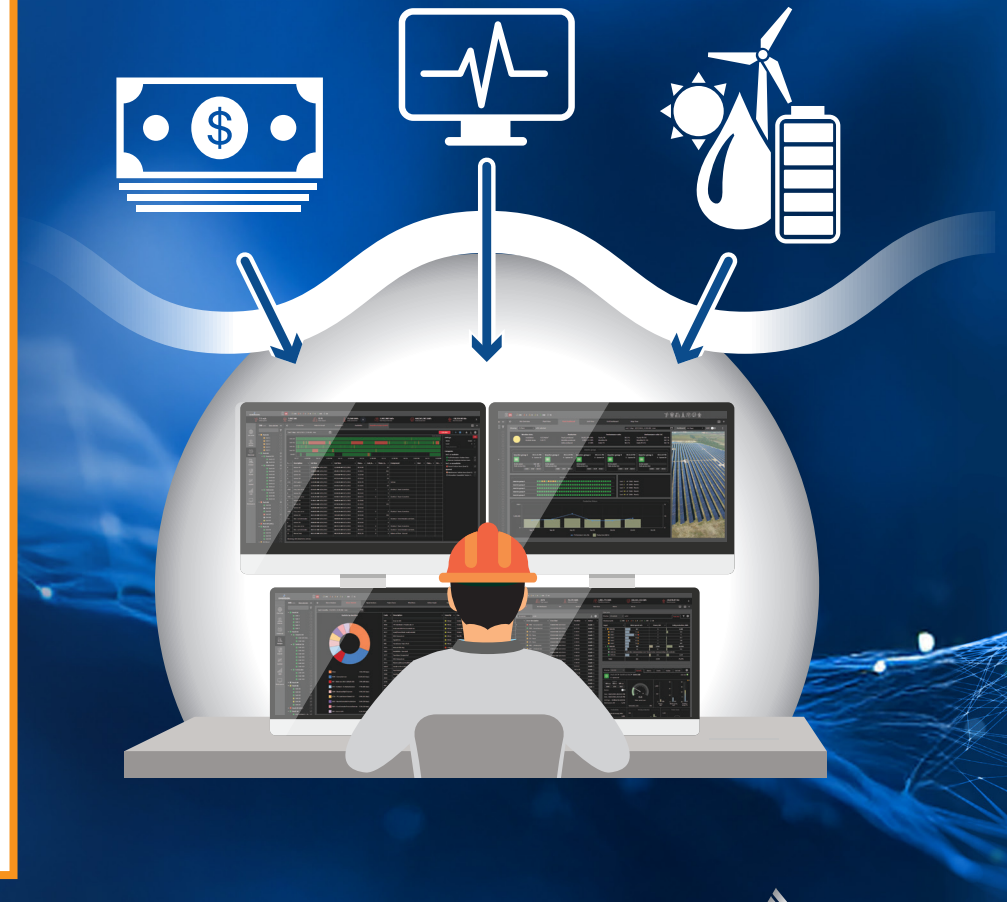
- Maintain power availability and reliability
- Control costs
- Achieve sustainability targets
- Manage increasingly complex energy systems
- Strengthen cybersecurity resilience across critical operations

Traditional power systems and legacy technologies aren't built for this level of complexity:

- Rapid growth in distributed energy resources (DERs)
- Increasing grid instability and outage risk
- Pressure to reduce emissions and energy costs

The result:

- Greater operational risk
- Higher costs
- Difficulty coordinating DERs, generation, storage and load
- Limited ability to turn visibility into reliable, optimized action
- Constantly evolving cyber threats
- Loss of potential revenue



Intelligent Control and Optimization for Resilient Energy

Emerson's microgrid automation solution integrates proven industry expertise spanning a wide range of energy resources with a unified platform for real-time control and intelligent optimization across distributed energy assets.

By combining Emerson's Ovation™ Automation Platform and AspenTech Microgrid Management System™ organizations can:

- Support resilient power operations through coordinated control and optimization
- Optimize cost, performance, and emissions
- Unlock new revenue from energy markets

Together, these technologies deliver **end-to-end microgrid intelligence**—from millisecond-level device control to long-term economic optimization and grid participation.

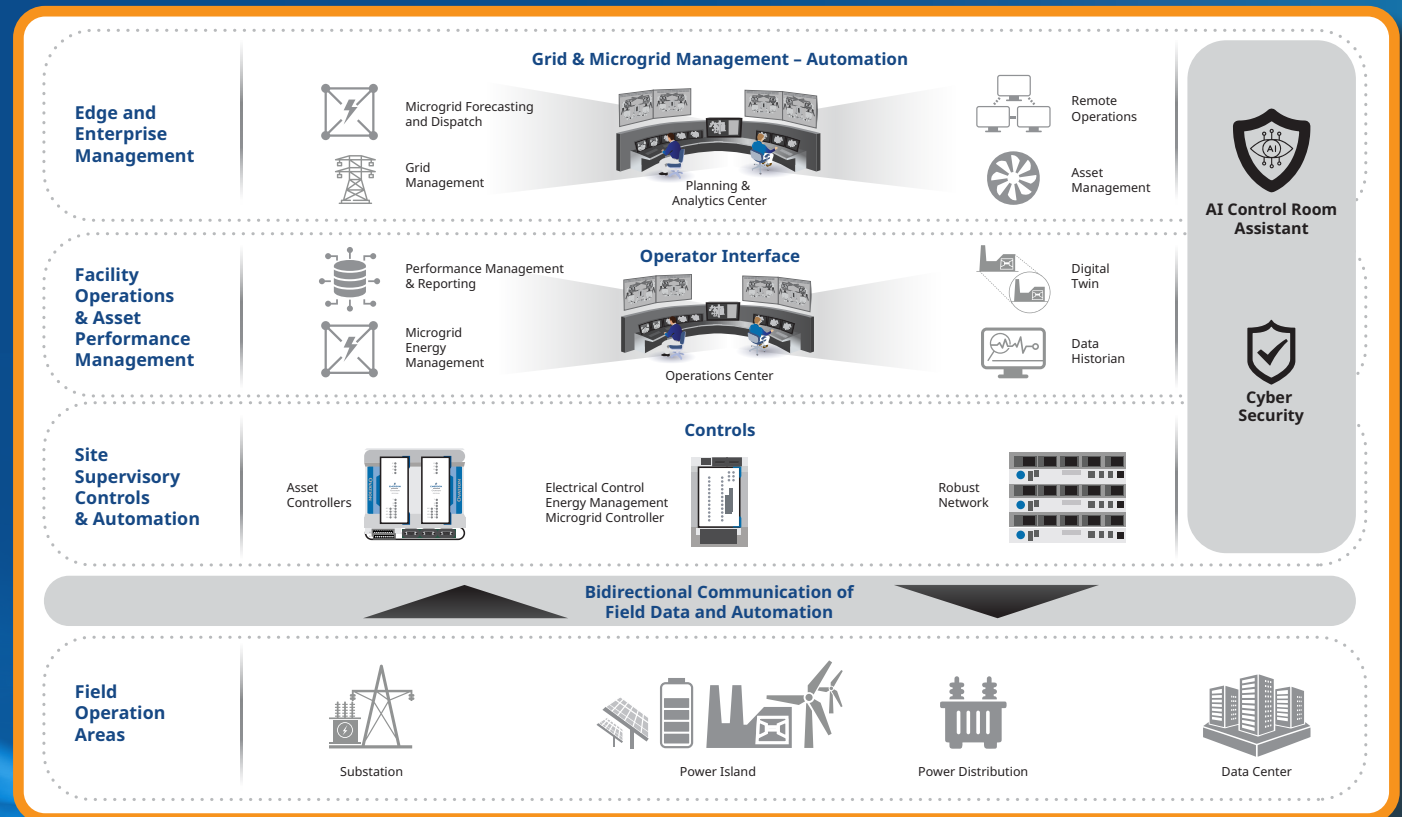
One solution for total energy control across complex energy environments.



A Layered, Integrated Approach from Field to Enterprise

Emerson applies a layered approach for microgrid automation, distributing AI-enabled intelligence across assets and throughout an organization so the right decisions are made at the right time.

- **Enterprise:** Fleet coordination and energy market participation
- **Optimization:** Forecasting, scheduling, economic dispatch, DER optimization
- **Operations:** SCADA, visualization, alarm management, operator decision support
- **Control:** Real-time automation, load balancing, voltage/frequency control
- **Field:** Device protection, I/O, and asset-level control



Optimize Operations with Industry-Leading Automation



Microgrid Automation

Continuous feedback ensures adaptive, intelligent performance



Real-time microgrid control and protection

Key Capabilities:

- AI-enabled operational insights
- Electrical control, synchronization, load shedding
- Voltage and frequency stability
- High-speed disturbance response
- Secure, resilient system architecture



Intelligent optimization and forecasting

Key Capabilities:

- AI-driven load and generation forecasting
- Economic dispatch and scheduling
- Peak shaving and tariff optimization
- Energy market participation
- Secure, resilient system architecture



Built for the Most Demanding Operations

Emerson's microgrid automation solution supports a wide range of industries and use cases:

DATA CENTERS

Ensure continuous uptime with resilient power islands



CAMPUSES

Improve resilience and operational continuity

PROCESS INDUSTRIES

Maintain uninterrupted operations for critical processes



REMOTE OPERATIONS

Optimize limited resources and reliability in isolated environments

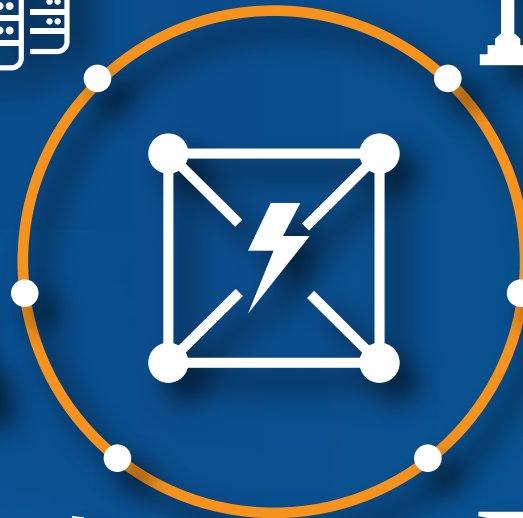
CRITICAL INFRASTRUCTURE

Protect essential services from disturbances



DISTRIBUTED ENERGY

Enable renewable integration at scale



Proven Capabilities that Deliver Results

Reliable Operations

- Seamless islanding and grid synchronization
- Supply-demand balancing and load shedding
- Voltage and frequency regulation

Optimized Energy

- Economic dispatch of generation assets
- Peak shaving and cost reduction
- Emissions optimization strategies



Clear Insights

- Real-time monitoring and dashboards
- Historical analysis and reporting
- Predictive analytics and AI-driven insights

Asset Management

- Multi-site coordination and control
- Remote operations and centralization
- Distributed energy resource orchestration

Take Control with Emerson's Microgrid Automation Solution



Built for Power Systems

Purpose-built for power generation, grid, and microgrid applications—not adapted from generic platforms



Unified Control & Optimization

A single platform for operational insights, real-time control, forecasting, and optimization



Comprehensive Lifecycle Support

Comprehensive lifecycle programs with expert service, product support and educational offerings



Unmatched Reliability at Scale

Trusted globally for uninterrupted operations with high-speed response and fail-safe architectures



Asset and System Protection

DHS-Certified anti-terrorism automation technology and ISO-27001 certified cybersecurity software



AI-Driven Performance

AI-enabled guidance to help improve decision-making, cost, efficiency, and sustainability outcomes



Proven Control Strategies

Six decades of control system engineering expertise from a global power and water industry automation leader



Future-Ready Platform

OEM-agnostic architecture supporting evolving technologies, standards and markets

Are You Ready to Turn Strategy into Action?

Emerson is ready to help you move faster, operate smarter, and deliver lasting impact.

Explore Emerson's full suite of power solutions and connect with our experts to accelerate your next project.

Scan now to contact an expert.



PWS_011272 [R1]

The Emerson logo is a trademark and service mark of Emerson Electric Co.
©2026 Emerson. All rights reserved.

