

# Ovation™ Automation Technology

## Advanced Solutions for Secure, Reliable Plant Operation in the Power, Water & Wastewater Industries

Emerson's five decades of power and water expertise is embedded within Ovation automation technology to form a reliable and innovative platform that evolves with rapidly changing technology to help improve plant and equipment reliability. Our latest innovation, the Ovation intelligence framework, is a higher-level software programming environment in which multiple, configurable data sources interact with expert system strategies and rules to learn normal versus abnormal process or equipment behavior and take appropriate action if necessary.



**Reliable**

Scalable solutions designed with embedded industry-specific automation strategies that optimize operations while maximizing plant reliability, availability and economic efficiencies.



**Secure**

Native security features enhanced by comprehensive cybersecurity services and solutions that help meet compliance obligations and protect assets against threats.



**Trusted**

Global industry expertise and comprehensive lifecycle services from a single, trusted vendor with a history of long-term customer service and support.



**Integrated**

A single, common platform for plant-, fleet- or district-wide control, monitoring and supervisory asset management that supports connectivity to third-party devices and business systems.



**Insightful**

Combines predictive data, optimization, remote process visualization and IIoT analytics for real-time actionable insights that help meet or exceed business objectives.



**Simplified**

Intuitive engineering tools and operator functions that enable in-house system maintenance, enhance decision making and improve operational efficiency.

**Ovation™**

  
**EMERSON**

# Ovation: One Platform Delivering Infinite Solutions

At Emerson, we continue to evolve our Ovation automation platform well beyond the bounds of traditional distributed control and data acquisition systems. In addition to native, advanced applications for optimizing power generation and water/wastewater operations, Ovation supports integrated vibration monitoring, generator excitation control, safety instrumented systems, scalable footprints for small or distributed applications, virtualization and embedded simulation — all backed by Emerson's comprehensive support programs.



The U.S. Department of Homeland Security has designated Ovation control solutions as Qualified Anti-Terrorism Technology. This Designation provides significant tort protection for claims arising out of acts of cyber terrorism as defined under the U.S. SAFETY Act. The Designation covers Emerson's Ovation control system, Power and Water Cybersecurity Suite and cybersecurity services. For more information on what protections the Designation provides, visit <https://www.safetyact.gov>.

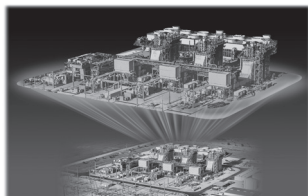
## Scalable Solutions

Flexible architecture that accommodates full-size and compact controllers, which combine the form factor and ruggedness of a PLC with the power of Ovation, for reliable field control.



## Digital Twin Technology

A virtual digital twin simulator that runs in parallel with the plant control system to enhance staff training and permit testing of new or updated control strategies, all without risk to plant operations.



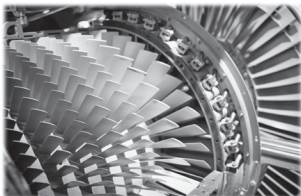
## Cybersecurity Solutions

Platform-independent solutions that enhance protection, proactively monitor threats and streamline security program management without process disruption.



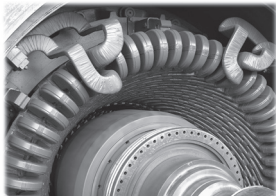
## Machinery Health Solutions

A native machinery health module that provides protection and automated advanced condition monitoring of rotating assets for early detection of potential equipment failure.



## Generator Excitation Solutions

Fully integrated synchronous generator excitation control with innovative features such as high-speed oscillography, dynamic bridge balancing and an independent field current adjuster.



## Enterprise Data Solutions

Remote access to near real-time operating data and historical plant information aggregated from multiple sources located throughout the enterprise network.



## Mechanical Retrofits

Retrofit solutions designed to improve long-term equipment reliability and performance while preventing or limiting nuisance trips, fluid contamination and unplanned downtime.



## Advanced Power Applications

Power industry-specific optimization technologies that enhance unit and environmental performance, operational flexibility and fiscal stewardship.



## Advanced Water Applications

Water industry-specific optimization technologies that reduce energy and chemical usage while improving equipment reliability and extending asset life.



## SCADA Solutions

Data from remotely dispersed assets and disparate systems integrated into a single, unified platform to reduce complexity while streamlining asset management and maintenance.



## Safety Instrumented Systems

A SIL3-certified safety instrumented system with electronic marshalling that is designed to meet IEC 61508 standards for protecting critical plant assets and personnel.



## Virtualization Solutions

An environment in which hardware is decoupled from the operating system and application software to reduce maintenance costs and extend system life.



## High-Performance Control Room Services

Graphic, alarm and control room design that simplifies how operators view and perceive data, allowing them to quickly respond to issues before they escalate.



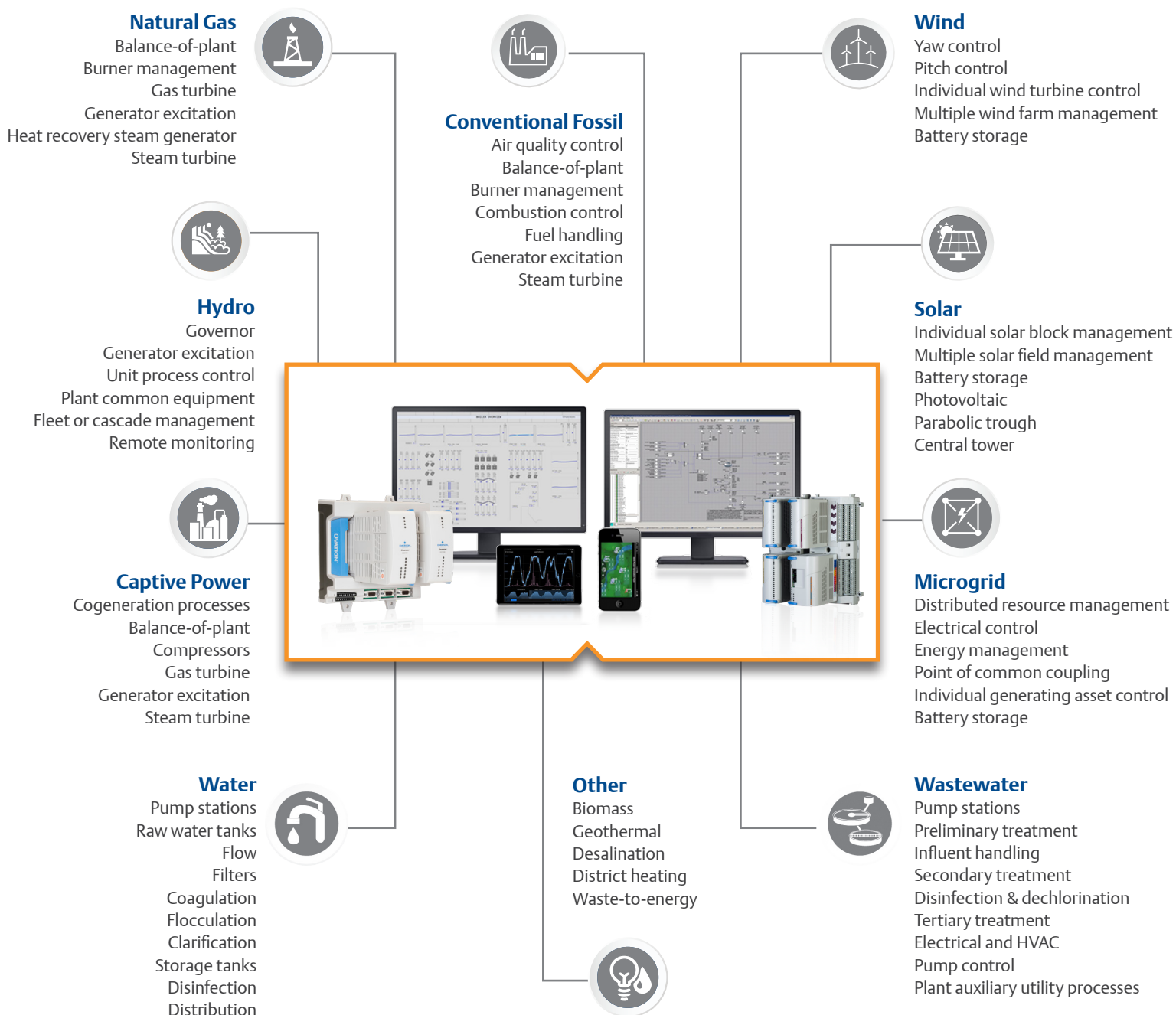
## Lifecycle Services

Expert project, educational, consulting and field services that increase system reliability, simplify maintenance and improve operating performance.



# Ovation: One Platform Designed for Power and Water

Ovation automation technology features native applications developed by process experts specifically for the power and water industries. A single platform provides full power plant control, optimization, simulation and analysis of all generating assets including individual units, multi-plant fleets, microgrids or distributed energy resources. Ovation is also engineered for cities and municipalities with growing and diverse water or wastewater collection, treatment and distribution services.



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For more information:  
[www.Emerson.com/Ovation](http://www.Emerson.com/Ovation)

  
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