



*Control the Fuel that Feeds the Fire*

## **Ovation™ Distributed Control and SCADA Solutions for Biomass Power Plants**

The need for biomass-fueled power has become more prominent in today's energy structure as the demand for renewable energy sources increases.

While some biomass generating facilities are built new, some are existing coal-fired units that are converted to co-fire biomass and coal. Modifying a power generating unit to burn biomass could impact equipment efficiency and reliability. The cost of making boiler modifications, or converting to a new biomass firing system, hinges on various factors such as boiler type and age, maximum potential heat input, cycle thermodynamics, and environmental requirements.

As with any large undertaking, construction, operation, and maintenance of biomass plants is not without challenges.



*For over a century, Emerson Process Management Power & Water Solutions has been using the world's most advanced technology to help customers control critical generation processes, increase plant efficiencies and megawatt production, and realize long-term O&M savings.*

***Key to our automation solution for biomass plants is the Ovation™ expert distributed control and SCADA system. Ovation was specifically designed for the power generation industry to increase unit performance, provide safe and reliable operations, and centralize power plant control and monitoring applications. Install Ovation as part of your automation strategy to gain higher levels of integration that will reduce costs, enhance operations, facilitate information sharing, and support your ability to meet regulatory and commercial objectives.***

# Ovation Distributed Control and SCADA Solutions for Biomass Power Plants



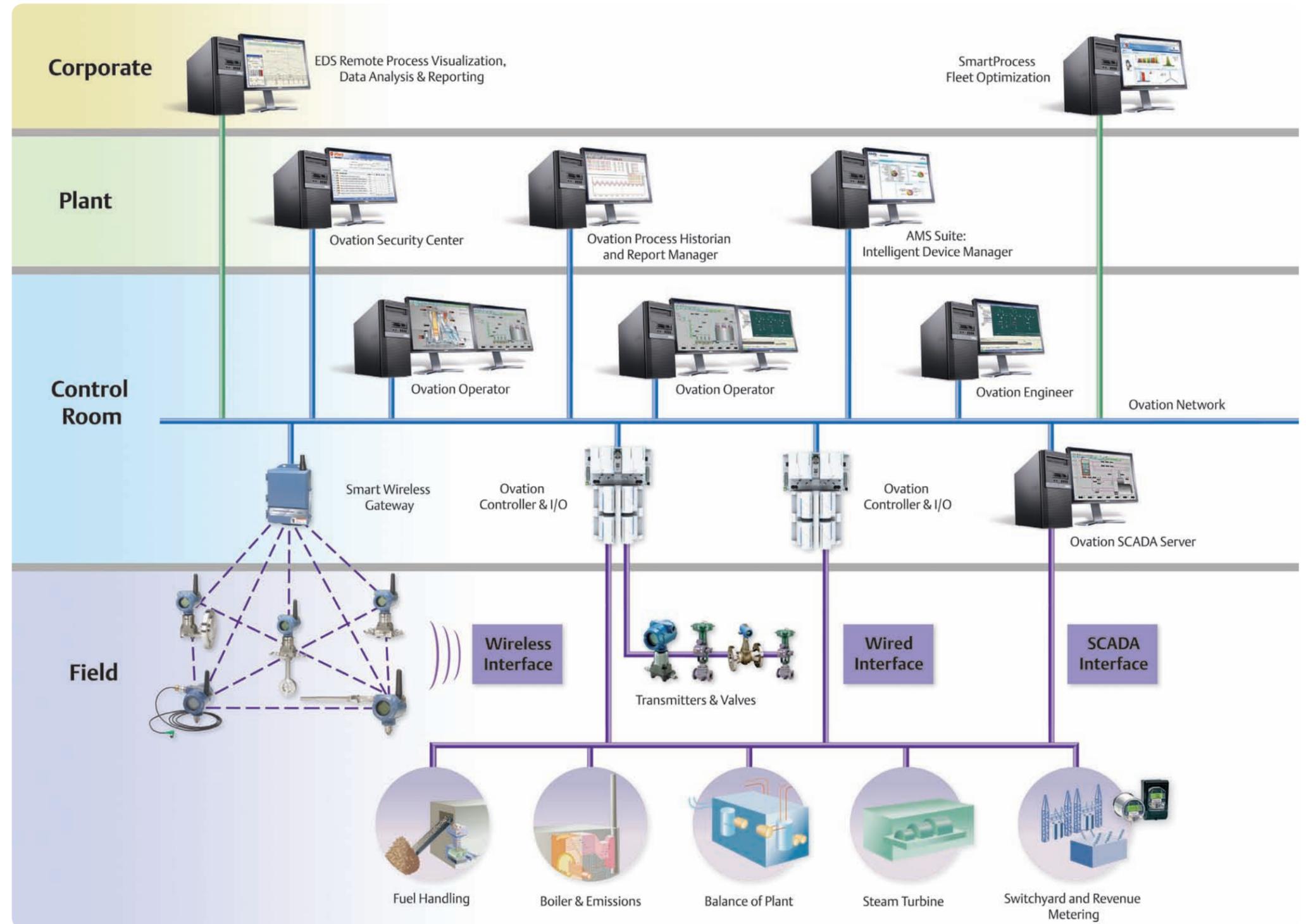
Ovation is a product of Emerson's four decades of experience in process control for the power generation industry. Ovation utilizes commercially available, off-the-shelf technology to provide a powerful and secure architecture while allowing your system to easily progress with rapidly advancing computer technologies. Ovation provides a seamless interface with the most widely adopted bus standards allowing you to incorporate smart device technologies into your process. And Ovation's embedded advanced algorithms and proven industry-specific control routines assure that you can optimize your operations to maximize efficiency, productivity, and profitability.

Coordinated control of boiler and turbine operations through the Ovation system contributes to improved unit stability, responsiveness, and thermal efficiencies; tighter overall control of plant operations; and a more streamlined view of key plant parameters.

Ovation's SCADA server makes important information from remote controllers readily available to the Ovation control system and desktops of supervisors and managers throughout your organization — enabling them to make faster, more effective operating decisions.

## Key Features of the Ovation Distributed Control and SCADA Solution for Biomass Plants

- Uses standard algorithms designed specifically for the power generation industry
- Provides fault-tolerant data transmission through redundant communication schemes
- Employs a distributed architecture to increase reliability
- Is easily expandable to meet future growth demands
- Utilizes a single, system-wide relational database to coordinate and maintain data
- Executes remote start, stop, or tagout of equipment to minimize site visits
- Implements automatic supervisory shutdown to protect assets
- Performs online diagnostics to quickly isolate and address problems
- Readily disseminates plant information to facilitate efficient commercial operation





## Emerson Solutions for your Biomass Power Plant

Emerson Process Management Power & Water Solutions has a rich history of energizing the power industry with new and revolutionary ideas. Our portfolio includes decades of experience providing automation solutions to customers that help mitigate the costs and risk associated with operating and maintaining biomass assets.

### >> Why Emerson and Ovation for your biomass plant?

- Leverages industry expertise gained from hundreds of boiler control installations on all types of power generation units, including coal-fired, cogeneration, combined cycle, and biomass facilities
- Provides control strategies proven in hundreds of thousands of MW's worth of drum, once-through, and fluidized bed boilers from virtually every manufacturer
- Offers a comprehensive project approach that encompasses architecting, implementing, and managing your biomass automation solution
- Supports a variety of user interface requirements through an open, flexible architecture
- Communicates to field devices through wired or wireless networks
- Provides access to plant data from remote locations
- Disseminates plant information to facilitate efficient commercial operation
- Supports NERC CIP security requirements
- Provides full-service, long-term support and training
- Offers membership to our global Users Group for ongoing and open communication between Emerson and its customers
- Employs a scalable architecture that compliments current plant configurations with a bridge for easy future expansion
- Allows integration of the entire generating fleet — including biomass plants, other renewable energy generation facilities such as hydro plants and wind farms, and traditional coal and gas-fired generating units — for dissemination of information throughout your organization to help meet dispatch or regulatory requirements

For more information visit [www.EmersonProcess-PowerWater.com](http://www.EmersonProcess-PowerWater.com)