Complete Wind Solutions

Delivering reliable, low-cost wind-generated energy

EMERSON™

Full Wind Turbine Lifecycle Provider

Increase Reliability and Profitability

Emerson has been in the business of control automation for the wind industry since 1969. Our track record is continuously proven, as more than 60,000 wind turbines equipped with our control systems, daily deliver optimal performance and unsurpassed reliability.

Our mission to increase your wind generation reliability and profitability applies to everything we do, and every product and service in our portfolio is designed with the primary objective to optimize your production, improve your bottom line and make you more competitive.

We cover everything in terms of hardware and software, and combined with our extensive customer partnering services, you are guaranteed the best solutions in the business.

We effectively bring down the cost of energy by providing our customers with cost-efficient solutions that offer quick and easy installation, the shortest possible learning curve, and stand out when it comes to performance and reliability. We provide services in all stages of a project, from design to commissioning and optimization.
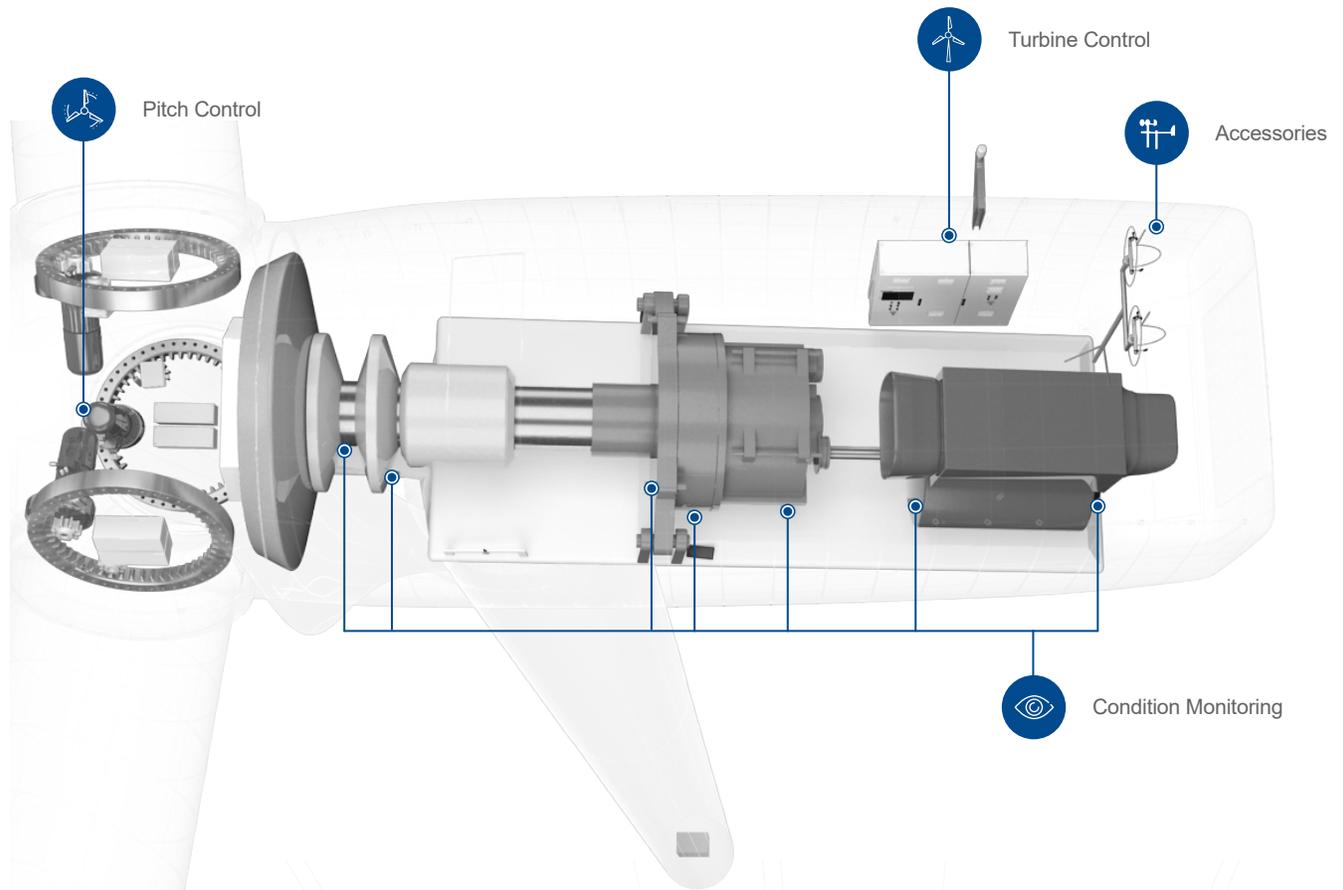
Comprehensive, Integrated Portfolio

Emerson offers a comprehensive portfolio of solutions and services including turbine control, electrical pitch control, condition monitoring, multi-brand SCADA, optimization, retrofit and customer partnering - all designed to provide our customers with high yield cost-optimized wind turbine operation and maintenance.

With Emerson, you will experience the true value of full-service control system integration.

Increased Operational Visibility
See more. Save More. Produce More.

Turbine Control

Pitch Control

Accessories

Condition Monitoring

SCADA

Farm Control

Grid Connection

Communication Network

Wind Turbine Control

Emerson's turbine control solutions consists of three main platforms; the WP4x00, WP100 and WP3x00 MK II. These platforms enable superior control and performance to any wind turbine, whether it's small wind, MW or retrofit. Our mobile diagnostic application to the solution enables you to monitor and visualize the wind turbine operation process via your smartphone or tablet.

Pitch Control

Emerson's electrical pitch system is designed for on- and offshore wind turbines up to 10 MW. The system provides a high degree of availability and reliability, while ensuring safe operation of the wind turbine. Our highly robust system has been extensively tested, and comes with a design life of 30 years. It is designed to effectively minimize operations and maintenance costs, reduce downtime and improve productivity.

SCADA

Emerson's multi-brand renewable SCADA and asset management solution provides you with the features, flexibility and services you need to gain greater control of your wind turbines or wind farms. We provide one of the most complete renewable SCADA solutions in the wind industry today. Whether you are an owner, operator or service engineer, you will find that we have a solution that will cover your every need when it comes to monitoring, controlling and servicing your wind turbines.

Condition Monitoring

With Emerson's wind condition monitoring system, you can perform predictive maintenance and avoid unplanned costs. Our solution helps you reduce the overall maintenance costs, while improving the reliability and availability of your turbine. With up to 16 IEPE type accelerometers strategically placed on the drive train, our wind condition monitoring system monitors the drive train components, such as the gearbox, generator, main bearings as well as the tower.

Wind Farm Control

Emerson's wind farm control solution consists of our field-proven hardware, developed for harsh on- and offshore environments, as well as multiple software packages optimized specifically for your location. With our wind farm solution it's possible to control and monitor from two to 2,500 wind turbines in zero to 50 clusters. Combined with our SCADA system, you are able to control and monitor all local, regional and global wind farms from the same office.

Communication Network

Connecting wind turbines and wind farms to the Internet is a security risk. For safety purposes, today's wind farms require safe, field-proven and reliable communication. Emerson's renewable SCADA system, combined with our gigabit Ethernet router and switch makes wind farm monitoring safe, easy and secure. Our solution gives you the benefit of connecting all turbines in a wind farm and making them online accessible from anywhere in the world.

Grid Connection

Our patented grid connection module, WP4060, is developed for soft connection of asynchronous wind turbine generators to the grid. The WP4060 ensures effective current control before, during and after the synchronous point. The soft connection principle ensures a remarkable reduction in net disturbances and wind turbine wear, and the controlled connection can be configured for both strong and weak net conditions.

Power Panels

Our competent engineers and technicians are dedicated to ensure high quality and cost-effective power panels. We offer; control panels for wind turbines; wind farm control panels; customized pitch boxes; PC climate racks for SCADA equipment and LVDP-low voltage distribution panels. Customers benefit from our large, very experienced and highly flexible supply chain, with production units in Europe and Asia.
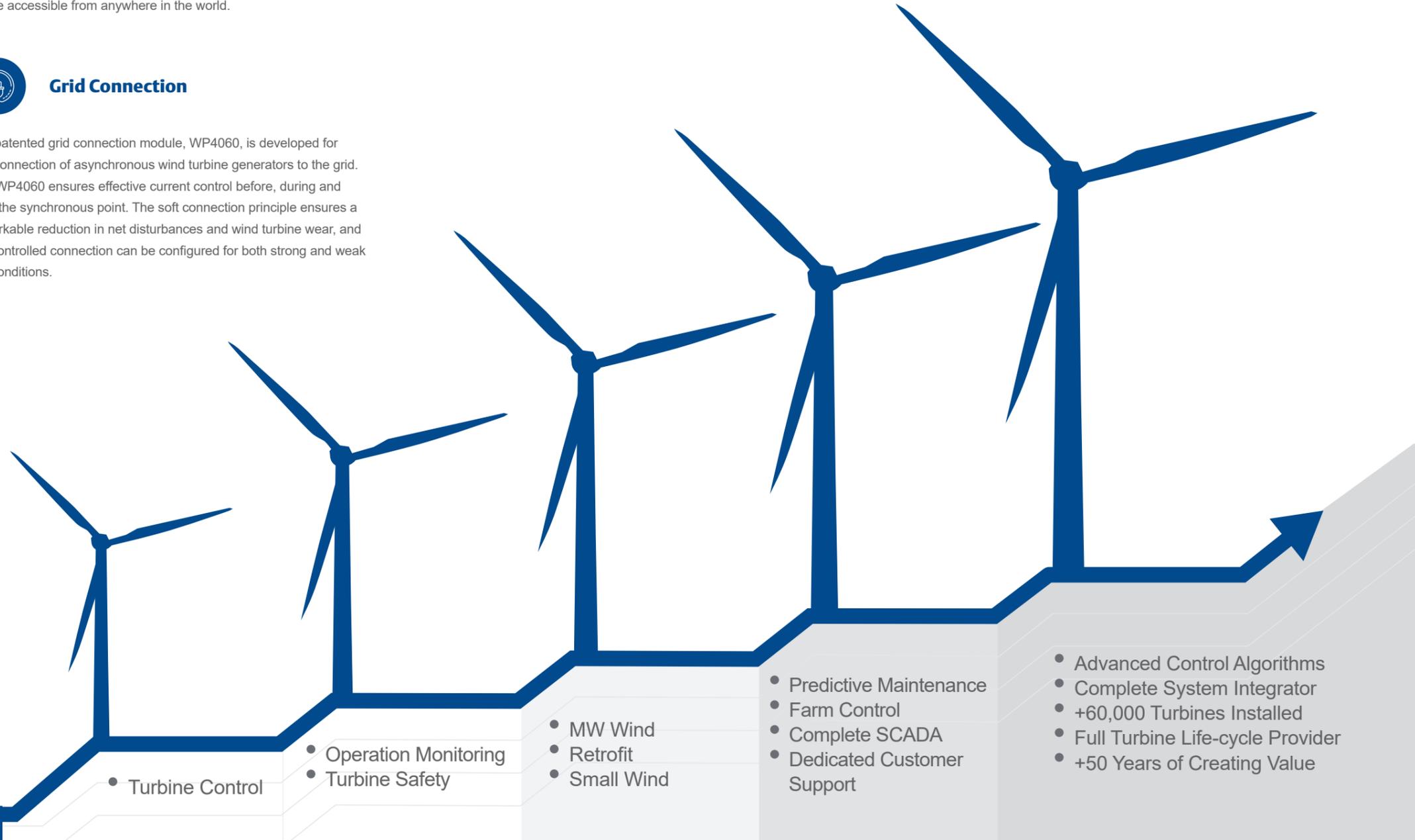
Accessories

Emerson offers a range of accessories designed for the wind industry. We find the accessories necessary to ensure that your wind turbine is stable and efficient, based on your specifications and experience. The accessories from Emerson are all developed, tested and certified for the wind industry and are fully integrable with all Emerson renewable control systems.

Customer Partnering

The best solutions are created when we join forces to design and customize a solution that fits your individual needs. With a wide range of services, we provide professional support for our customers as part of our customer partnering concept, including knowhow based needs assessment, design & engineering, world wide field service, repair & maintenance and customer support.

- Turbine Control

- Operation Monitoring
- Turbine Safety

- MW Wind
- Retrofit
- Small Wind

- Predictive Maintenance
- Farm Control
- Complete SCADA
- Dedicated Customer Support

- Advanced Control Algorithms
- Complete System Integrator
- +60,000 Turbines Installed
- Full Turbine Life-cycle Provider
- +50 Years of Creating Value

An Industry Leader
With a **50+ Year** Legacy
of **Enabling Increased Reliability** and
Low-Cost Production of Wind Power

Supporting
Sustainability

Wind Industry Pioneer
Since1969

+40
WTG Designs
Retrofitted

+47
active markets

+750
Turbine Types
Supported

60,000
Control Systems Worldwide

Best-in-Class
Software and Automation
Technologies

Wind | Solar | Hydro | Biomass |
Wave Biomass | Marine | District Heating

Focus on
High Quality

EMERSON™